Course Information

Florida Statewide Course Numbering System

Course Descriptions Index

Course Descriptions
FLORIDA STATEWIDE COURSE NUMBERING SYSTEM

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida’s Statewide Course Numbering System. This numbering system is used by all public postsecondary institutions in Florida and 33 participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the “SCNS taxonomy.” Descriptions of the content of courses are referred to as “course equivalency profiles.”

Example of Course Identifier

<table>
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<tr>
<th>Prefix</th>
<th>Level Code</th>
<th>Century Digit</th>
<th>Decade Digit</th>
<th>Unit Digit</th>
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Sociology, General
Freshman Level at this institution
Entry-level General Sociology
Survey Course
Social Problems

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions. (Exceptions are listed below.)

For example, a survey course in social problems is offered by 35 different postsecondary institutions. Each institution uses “SYG_010” to identify its social problems course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, “SYG” means “Sociology, General,” the century digit “0” represents “Entry-level General Sociology,” the decade digit “1” represents “Survey Course,” and the unit digit “0” represents “Social Problems.”

In science and other areas, a “C” or “L” after the course number is known as a lab indicator. The “C” represents a combined lecture and laboratory course that meets in the same place at the same time. The “L” represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully complete SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

Authority for Acceptance of Equivalent Courses

Section 1007.24(7), Florida Statutes, states:

Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United
States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

**Exceptions to the General Rule for Equivalency**

The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution:

- A. Courses in the 900-999 series (e.g., ART 2905)
- B. Internships, practica, clinical experiences, and study abroad courses
- C. Performance or studio courses in Art, Dance, Theater, and Music
- D. Skills courses in Criminal Justice
- E. Graduate courses
- F. Courses not offered by the receiving institution
- G. For courses at non-regionally accredited institutions, courses offered prior to the transfer date of the course

College preparatory and vocational preparatory course may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Mr. B.G. Thompson, Associate Vice President for Academic Affairs, Office of Curriculum Services, Broward Community College, 225 E. Las Olas Boulevard, Fort Lauderdale, FL 33001 or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the Statewide Course Numbering System office at (850) 245-0427 or SunCom 205-0427.
| Course Index | ACCOUNTING | ACB .................................................. 209 |
| | | TAX ................................................. 310 |
| | ANTHROPOLOGY | ANT .................................................. 215 |
| | ARCHITECTURE | ARC .................................................. 216 |
| | | TAR .................................................. 307 |
| | ART | ARH .................................................. 217 |
| | | ART .................................................. 217 |
| | | PGY .................................................. 290 |
| | ASTRONOMY | AST .................................................. 219 |
| | AUTOMOTIVE TECHNOLOGY | AER .................................................. 206 |
| | | ARR .................................................. 217 |
| | | DIM .................................................. 243 |
| | AVIATION MAINTENANCE | AMT .................................................. 208 |
| | AVIATION TECHNOLOGY | ASC .................................................. 219 |
| | | ATF .................................................. 219 |
| | | ATT .................................................. 220 |
| | | AVM .................................................. 220 |
| | | AVS .................................................. 221 |
| | BIOLOGICAL SCIENCE | BOT .................................................. 223 |
| | | BSC .................................................. 223 |
| | | EVR .................................................. 249 |
| | | MCB .................................................. 265 |
| | | ZOO .................................................. 309 |
| | BIOMEDICAL ENGINEERING | EST .................................................. 249 |
| | BUILDING CONSTRUCTION AND CIVIL ENGINEERING | BCN .................................................. 221 |
| | | BCT .................................................. 223 |
| | | ETC .................................................. 249 |
| | | ETG .................................................. 249 |
| | | EVS .................................................. 250 |
| | | SUR .................................................. 306 |
| | BUSINESS LAW | BUL .................................................. 224 |
| | BUSINESS MATH | MTB .................................................. 269 |
| | | QMB .................................................. 296 |
| | CARDIOVASCULAR TECHNOLOGY | CVT .................................................. 238 |
| | CAREER PLANNING | SLS .................................................. 302 |
| | CHEMISTRY | CHM .................................................. 229 |
| | | CLAST EXAM | CST .................................................. 239 |
| | COMPUTER SCIENCE | CDA .................................................. 224 |
| | | CEN .................................................. 224 |
| | | CET .................................................. 225 |
| | | CGS .................................................. 227 |
| | | CIS .................................................. 230 |
| | | COP .................................................. 233 |
| | | CTS .................................................. 236 |
| | CONTINUING EDUCATION FOR HEALTH RELATED PROFESSIONALS | HCP ................................................. 257 |
| | | HUN .................................................. 260 |
| | | MLT .................................................. 267 |
| | | MTB .................................................. 269 |
| | | NUR .................................................. 277 |
| | | RTE .................................................. 300 |
| | | SON .................................................. 302 |
| | COOPERATIVE EDUCATION | ACG .................................................. 209 |
| | | AER .................................................. 208 |
| | | ART .................................................. 217 |
| | | ASC .................................................. 218 |
| | | BSC .................................................. 223 |
| | | CCJ .................................................. 224 |
| | | CIS .................................................. 230 |
| | | COM .................................................. 233 |
| | | EDG .................................................. 244 |
| | | EGS .................................................. 244 |
| | | EVR .................................................. 249 |
| | | FFP .................................................. 250 |
| | | GEB .................................................. 253 |
| | | HFT .................................................. 257 |
| | | HLP .................................................. 259 |
| | | ISS .................................................. 261 |
| | | JOU .................................................. 261 |
| | | MAN .................................................. 264 |
| | | MKA .................................................. 267 |
| | | MNA .................................................. 267 |
| | | ORH .................................................. 285 |
| | | OST .................................................. 285 |
| | | RTV .................................................. 302 |
| | COURT REPORTING TECHNOLOGY | OST ................................................. 285 |
| | CRIMINAL JUSTICE | CCJ .................................................. 224 |
| | | CJC .................................................. 230 |
| | | CJD .................................................. 230 |
| | | CJR .................................................. 230 |
| | | CJK .................................................. 230 |
| | | CJL .................................................. 231 |
| | | CJT .................................................. 233 |
| | DANCE | DAA .................................................. 239 |
| | | DAN .................................................. 240 |
| | DENTAL ASSISTING | DEA .................................................. 240 |
| | | DES .................................................. 241 |
| | DENTAL HYGIENE | DEH .................................................. 241 |
| | DIAGNOSTIC MEDICAL SONOGRAPHY | SON ................................................. 302 |
### Course Index

<table>
<thead>
<tr>
<th>Department</th>
<th>Code</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>ECO</td>
<td>243</td>
</tr>
<tr>
<td>Education</td>
<td>CHD</td>
<td>228</td>
</tr>
<tr>
<td></td>
<td>EDF</td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>EDG</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>EEC</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>EME</td>
<td>245</td>
</tr>
<tr>
<td>Electronics Engineering Technology</td>
<td>CET</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>EET</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>EST</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>MTB</td>
<td>269</td>
</tr>
<tr>
<td>Emergency Medical Services</td>
<td>EMS</td>
<td>245</td>
</tr>
<tr>
<td>Engineering</td>
<td>EGS</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>ETD</td>
<td>249</td>
</tr>
<tr>
<td>English as a Second Language</td>
<td>EAP</td>
<td>242</td>
</tr>
<tr>
<td>English Composition</td>
<td>ENC</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>LIN</td>
<td>262</td>
</tr>
<tr>
<td>English/Creative Writing</td>
<td>CRW</td>
<td>235</td>
</tr>
<tr>
<td>English/Literature</td>
<td>AML</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>ENG</td>
<td>248</td>
</tr>
<tr>
<td></td>
<td>ENL</td>
<td>248</td>
</tr>
<tr>
<td></td>
<td>LIT</td>
<td>262</td>
</tr>
<tr>
<td>Environmental Science Technology</td>
<td>EVR</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>EVS</td>
<td>250</td>
</tr>
<tr>
<td>Finance</td>
<td>FIN</td>
<td>252</td>
</tr>
<tr>
<td>Fire Science</td>
<td>FFP</td>
<td>250</td>
</tr>
<tr>
<td>Foreign Language, Modern</td>
<td>FRE</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td>GER</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>HBR</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>ITA</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>POR</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>RUS</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>SPN</td>
<td>303</td>
</tr>
<tr>
<td></td>
<td>SPW</td>
<td>306</td>
</tr>
<tr>
<td>General Business</td>
<td>GEB</td>
<td>253</td>
</tr>
<tr>
<td>Geography</td>
<td>GEA</td>
<td>253</td>
</tr>
<tr>
<td></td>
<td>GEO</td>
<td>253</td>
</tr>
<tr>
<td>Geology</td>
<td>ESC</td>
<td>248</td>
</tr>
<tr>
<td></td>
<td>GLY</td>
<td>254</td>
</tr>
<tr>
<td>Graphic Design Technology</td>
<td>GRA</td>
<td>254</td>
</tr>
<tr>
<td>Health Information Management</td>
<td>HIM</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>HSA</td>
<td>260</td>
</tr>
<tr>
<td>Health Services Management</td>
<td>HSA</td>
<td>260</td>
</tr>
<tr>
<td></td>
<td>HSG</td>
<td>260</td>
</tr>
<tr>
<td>History</td>
<td>AMH</td>
<td>208</td>
</tr>
<tr>
<td></td>
<td>EUH</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>HIS</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>JST</td>
<td>262</td>
</tr>
<tr>
<td></td>
<td>LAH</td>
<td>262</td>
</tr>
<tr>
<td></td>
<td>WOH</td>
<td>309</td>
</tr>
<tr>
<td>Interdisciplinary Studies</td>
<td>IDH</td>
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</tr>
<tr>
<td>Hospitality and Tourism</td>
<td>FSS</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td>HFT</td>
<td>257</td>
</tr>
<tr>
<td>Humanities Travel Study</td>
<td>HUM</td>
<td>260</td>
</tr>
<tr>
<td>Interdisciplinary Leadership</td>
<td>IDS</td>
<td>260</td>
</tr>
<tr>
<td>Interior Design</td>
<td>IND</td>
<td>260</td>
</tr>
<tr>
<td>Journalism</td>
<td>JOU</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>MMC</td>
<td>267</td>
</tr>
<tr>
<td></td>
<td>PGY</td>
<td>290</td>
</tr>
<tr>
<td></td>
<td>RTV</td>
<td>302</td>
</tr>
<tr>
<td>Landscape Technology</td>
<td>CEM</td>
<td>224</td>
</tr>
<tr>
<td></td>
<td>ORH</td>
<td>285</td>
</tr>
<tr>
<td></td>
<td>PLS</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>SOS</td>
<td>303</td>
</tr>
<tr>
<td>Legal Assisting</td>
<td>PLA</td>
<td>294</td>
</tr>
<tr>
<td>Management</td>
<td>MAN</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>MNA</td>
<td>267</td>
</tr>
<tr>
<td>Marketing</td>
<td>MAR</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>MKA</td>
<td>267</td>
</tr>
<tr>
<td>Massage Therapy</td>
<td>MSS</td>
<td>268</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MAC</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td>MAP</td>
<td>264</td>
</tr>
<tr>
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</tr>
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<td>264</td>
</tr>
<tr>
<td></td>
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<td>266</td>
</tr>
<tr>
<td></td>
<td>MTB</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td>MTG</td>
<td>270</td>
</tr>
<tr>
<td></td>
<td>STA</td>
<td>306</td>
</tr>
<tr>
<td>Medical Assisting</td>
<td>HSC</td>
<td>260</td>
</tr>
<tr>
<td></td>
<td>MEA</td>
<td>263</td>
</tr>
<tr>
<td>Medical Laboratory Technology</td>
<td>MLT</td>
<td>267</td>
</tr>
<tr>
<td>Course Index</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Military Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFR</td>
<td>209</td>
<td></td>
</tr>
<tr>
<td>MSL</td>
<td>268</td>
<td></td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CGS</td>
<td>227</td>
<td></td>
</tr>
<tr>
<td>COP</td>
<td>233</td>
<td></td>
</tr>
<tr>
<td>GRA</td>
<td>254</td>
<td></td>
</tr>
<tr>
<td>OST</td>
<td>285</td>
<td></td>
</tr>
<tr>
<td>PGY</td>
<td>290</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUE</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>MUG</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>MUH</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>MUL</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>MUM</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>MUN</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>MUO</td>
<td>271</td>
<td></td>
</tr>
<tr>
<td>MUS</td>
<td>271</td>
<td></td>
</tr>
<tr>
<td>MUT</td>
<td>271</td>
<td></td>
</tr>
<tr>
<td>Music Applied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVB</td>
<td>273</td>
<td></td>
</tr>
<tr>
<td>MVJ</td>
<td>273</td>
<td></td>
</tr>
<tr>
<td>MVK</td>
<td>273</td>
<td></td>
</tr>
<tr>
<td>MVO</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td>MVP</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td>MVH</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td>MVV</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>MVW</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>Nuclear Medicine Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMT</td>
<td>276</td>
<td></td>
</tr>
<tr>
<td>Nursing Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>APB</td>
<td>213</td>
<td></td>
</tr>
<tr>
<td>NUR</td>
<td>277</td>
<td></td>
</tr>
<tr>
<td>Oceanography</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCE</td>
<td>282</td>
<td></td>
</tr>
<tr>
<td>Office Skills Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCA</td>
<td>282</td>
<td></td>
</tr>
<tr>
<td>OFT</td>
<td>282</td>
<td></td>
</tr>
<tr>
<td>OTA</td>
<td>287</td>
<td></td>
</tr>
<tr>
<td>Office Systems Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST</td>
<td>285</td>
<td></td>
</tr>
<tr>
<td>OTA</td>
<td>287</td>
<td></td>
</tr>
<tr>
<td>Orientation (New Student)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORT</td>
<td>285</td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHI</td>
<td>291</td>
<td></td>
</tr>
<tr>
<td>Physical Education Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>288</td>
<td></td>
</tr>
<tr>
<td>PEM</td>
<td>289</td>
<td></td>
</tr>
<tr>
<td>PEN</td>
<td>289</td>
<td></td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSC</td>
<td>296</td>
<td></td>
</tr>
<tr>
<td>Physical Therapist Assistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHT</td>
<td>291</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY</td>
<td>294</td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPO</td>
<td>233</td>
<td></td>
</tr>
<tr>
<td>INR</td>
<td>261</td>
<td></td>
</tr>
<tr>
<td>PAD</td>
<td>288</td>
<td></td>
</tr>
<tr>
<td>POS</td>
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COURSE DESCRIPTIONS

ACG1003 ACCOUNTING SURVEY  (3)
Instruction in standard bookkeeping procedures for small professional, service, and retail sole proprietorships. Attention is given to journalizing, posting, preparing the trial balance and financial statements. Procedures for handling petty cash, bank deposits and withdrawals, payroll business tax reports, and special journals are included. This course is primarily for the non-accounting major or for those who need additional background prior to taking ACG2001, Principles of Accounting I. Supplementary review and practice in applying accounting principles is available through usage of computer assisted instructional software.
Prerequisite: MTB1103, suggested.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

ACG2001 PRINCIPLES OF ACCOUNTING I  (3)
This course provides an introductory study of the fundamental principles of recording, summarizing and reporting the financial activities of proprietorships. Advisement note: Students achieving less than a grade of "C" may experience academic difficulty in ACG2011, Principles of Accounting II. A grade of less than "C" is not transferable to upper division.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ACG2011 PRINCIPLES OF ACCOUNTING II  (3)
As the second course of the series, this course concludes the study of financial accounting and introduces manufacturing and managerial accounting concepts and procedures. Topics covered include plant assets, accounting for equity rights, cash flow statement, financial statement analysis, cost concepts and job order costing. Advisement note: Students achieving less than a grade of "C" may experience academic difficulty in ACG2071, Managerial Accounting. A grade of less than "C" is not transferable to upper division.
Prerequisite: ACG2001
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ACG2071 MANAGERIAL ACCOUNTING  (3)
As the last course of the series, this course concludes the study of manufacturing accounting and managerial accounting. Topics covered include the process cost system, cost behavior, cost-volume-profit analyses, budgeting, profit analysis, responsibility accounting, differential analysis capital investment analysis, quantitative techniques for inventory control, and decision-making under uncertainty. Advisement note: Students achieving less than a grade of "C" may experience academic difficulty in ACG2071, Managerial Accounting. A grade of less than "C" is not transferable to upper division.
Prerequisite: ACG2011
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ACG2100 INTERMEDIATE ACCOUNTING I  (3)
This course provides a systematic and in-depth study of the financial statements and underlying records. Special attention is given to the elements composing working capital, investments, and plants assets. Advisement Note: Students achieving less than a grade of "C" in ACG2101, Intermediate Accounting II, may experience academic difficulty in this course.
Prerequisite: ACG2011
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ACG2110 INTERMEDIATE ACCOUNTING II  (3)
As the second course of the series, this course continues an in-depth study of financial statements and underlying records. The elements that comprise the equity side of the balance sheet and other special problems in income determination and financial reporting. Advisement Note: Students achieving less than a grade of "C" in ACG2100, Intermediate Accounting I, may experience academic difficulty in the course. Offered Term I, Central Campus.
Prerequisite: ACG2100
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ACG2360 COST ACCOUNTING  (3)
A study of the relationship of cost accounting to the control and decision-making functions of management. A review of accounting for costs precedes a detailed consideration of product costing for both job order and process cost systems. Advisement Note: Students achieving less than a grade of "C" in ACG2071 may experience academic difficulty in this course.
Prerequisite: ACG2071
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 0.00

ACG2949 CO OP WORK EXPERIENCE  (3)
A course designed to provide training in a students field of study through work experience. Students are graded on the basis of learning objectives and employer evaluations. Course may be repeated three times. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain the registration approval.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AER1010C INTRODUCTION TO AUTOMOTIVE TECHNOLOGY  (4)
A course designed to introduce the field of Automotive Service. Topics include auto service careers, shop safety, fuels, lubricants, fasteners, tools and equipment. An introduction to the major automobile systems and instruction in minor service procedures are provided.
Lec Hrs = 48 Lab Hrs = 48 Oth Hrs = 0 Fees = 33.75

AER1111C AUTOMOTIVE ENGINE REPAIR  (4)
A course designed to teach the principles and procedures necessary to completely rebuild an automotive engine and to provide the practical experience in the engine diagnosis, removal, disassembly, rebuilding, and dynamic check out. Topics include engine diagnosis; engine removal; engine disassembly; engine rebuilding; piston, pin and rod service; engine assembly; engine installation; valve adjustment; tune ups; and road test procedures. Special emphasis will be given to safety procedures and the specific tools, fasteners, and equipment to be used.
Lec Hrs = 48 Lab Hrs = 48 Oth Hrs = 0 Fees = 46.25

AER1300C ELECTRICAL SYSTEMS  (4)
A course designed to teach the principles and operations of the basic electrical systems found in automotive equipment and to provide practical experience in the service and repair of or adjustment to these systems. Topics include batteries, starters, alternators, regulators, ignition systems, chassis electrical circuits, and electrical accessory circuits. Special emphasis will be given to safety procedures and the specific tools and equipment to be used.
Lec Hrs = 48 Lab Hrs = 48 Oth Hrs = 0 Fees = 46.25

AER1310C ELECTRONICS  (4)
A course designed to teach the fundamental principles of electronics and to introduce the application of electronics in the modern automobile.
Lec Hrs = 48 Lab Hrs = 48 Oth Hrs = 0 Fees = 31.25

AER2171C HEATING AND AIR CONDITIONING THEORY  (4)
A course designed to teach the principles and operations of automotive heating systems, air conditioning systems and accessories, to provide practical experience in testing, analyzing, installing and repairing heating systems, air conditioning systems, air conditioning tools and equipment,
lines, fittings, and valves, operational checks and adjustment, minor repairs, and the special tools and instruments to be used.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 46.25

AER2230C MANUAL DRIVE TRAIN AND AXLES (4)
A course designed to teach the principles, operations, diagnosis and repair of manual transmissions and transaxles, drive shafts, axles, clutches and four-wheel drive systems. Special emphasis will be given to safety and the specific tools and instruments to be used.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 46.25

AER2251C AUTOMATIC TRANSMISSIONS AND TRANSAXLES (4)
A course designed to teach the principles, operations, diagnosis and repair of automatic transmissions and transaxles. Special emphasis will be given to safety procedures and the specific tools and instruments used.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 58.75

AER2410C BRAKE SYSTEMS AND CHASSIS REPAIR (4)
A course to teach the principles and operations of brake systems including disc systems, split systems, hydraulic cylinders, valving systems, traction control systems, and to provide practical experience in the repair of these systems. Topics include basic brake theory, drum brake systems, split systems, disc brake systems, hydraulic cylinders, machining and measuring techniques, power boosters, and road tests procedures. Special emphasis will be given to safety procedures and specific tools and equipment to be used.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 46.25

AER2450C STEERING AND SUSPENSION SYSTEMS (4)
A course designed to teach the principles of steering systems, suspension systems, and wheel alignment and to provide practical experience in repairing automobile suspension and steering systems, aligning front ends and balancing tires. Topics include wheel balancing, suspension systems, suspension angle and lines, wheel alignment, standard steering gears, power steering systems and frames. Special emphasis will be given to safety procedures, and the specific tools and instruments to be used.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 0.00

AER2520C ENGINE PERFORMANCE (4)
A course designed to teach the principles and procedures of engine tune up and repair, and emission control systems.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 45.00

AER2523C ADVANCED ENGINE PERFORMANCE (4)
A course designed to teach the latest in computer engine controls, electronic fuel injection systems, emission controls and electronic instrumentation systems. This course includes theory of operation and construction, troubleshooting and repair.

Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 45.00

AER2700 AUTOMOTIVE SERVICE MANAGEMENT (3)
A course designed for the study of an Automotive Service Department. Topics include warehousing system, inventory control systems, cost control and pricing merchandising and marketing, parts counter control, customer relations and organizational plans of service departments, work schedules, use of pricing, manuals, estimating, and pricing of work, analysis management cost accounting and customer relations.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AER2943 APPRENTICE EXPERIENCE (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AER2944 APPRENTICE EXPERIENCE (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AER2945 APPRENTICE EXPERIENCE (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AER2946 APPRENTICE EXPERIENCE (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AER2949 CO OP WORK EXPERIENCE (3)
On the job training at an automobile dealership. Each of the eight week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AFR1101 FIRST YEAR AIR FORCE ROTC (A) (1)
This is a survey course designed to introduce students to the U.S. Air Force Reserve Officer Training Corps. Featured topic include: officerhood and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills. A leadership laboratory is included and provides cadets with leader/follower experiences. Instruction is at the University of Miami campus (PH:305-284-2870).

Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

AFR1111 FIRST YEAR AIR FORCE ROTC (B) (1)
AFR1111 is a continuation of the AFR1101 survey course designed to introduce students to the U.S. Air Force Reserve Officer Training Corps. Featured topics include: Origins of the Air Force. The Air Force Installation and Sister Services. A leadership laboratory is included and provides cadets with leader/follower experiences. Instruction is at the University of Miami campus (PH:305-284-2870).

Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

AFR2130 SECOND YEAR AIR FORCE ROTC (A) (1)
This course examines general historical aspects of air and space power. The course covers the time period from the first balloons and dirigibles to the space age. Examples are provided to demonstrate the historical events leading to the modern day Air Force. An additional focus will be on Air Force core values. Past Air Force operations and the acts of historical Air Force leaders will be points of discussion. A leadership laboratory is included and provides cadets with leader/follower experiences. Instruction is at the University of Miami campus (PH:305-284-2870).

Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

AFR2131 SECOND YEAR AIR FORCE ROTC (B) (1)
This course continues the historical review of air and space power provided in MJS 2362. The course covers the Vietnam era to the conflicts of today. Historical examples are provided to demonstrate the development of Air Force capabilities and missions. This course provides the student with an understanding of the employment of air and space power. In addition, students will study how to become a more effective communicator. A leadership laboratory is included and provides cadets with leader/follower experiences. Instruction is at the University of Miami campus (PH:305-284-2870).

Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00
AMH2010 HISTORY OF THE UNITED STATES
A survey of American History from pre-Columbus to 1865. This course provides a general history of the political, economic, cultural, and social development of American society. Special emphasis is placed upon the Colonial period, the American Revolution, the rise of American Nationalism, the character and culture of American pre-Civil War, and the U.S. Civil War. Meets Area 3A general education requirements for the A.A. degree. Meets Area 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AMH2020 HISTORY OF THE UNITED STATES
U.S. history from the post-Civil War Reconstruction period to the present. A general survey of the major political forces shaping American life: development of modern industrialism; organization of laborers and farmers; immigration; the Progressive Era; World War I; the 1920's; the Great Depression and New Deal; origins and impact of the Second World War; advent of the Cold War; post war domestic tensions; the complacent 1950's; social/political unrest in the 1960's; disillusionment and search for new directions since 1970. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AMH2035 THE UNITED STATES: 1945 TO THE PRESENT
An examination of the major political, social, economic, cultural, military and diplomatic developments which have shaped the development of the modern American nation since 1945, including World War II, the Cold War, the McCarthy Era, the complacent fifties, the turbulent sixties, the disillusioning seventies, the conservative 1980's, and the search for new directions since, to include events into the 21st century.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AMH2091 HISTORY OF THE AFRICAN AMERICAN
A survey of the African American beginning in Africa and the emergence of slavery until the present time in America. Emphasis will be placed on the African Americans' economic, political and cultural development and their contributions to our present society. Meets Area 2A and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Pre requisite: Eligibility for ENC1101
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AML2010 AMERICAN LITERATURE: COLONIAL TO 1900
Selected masterpieces of American literature before 1900 including works of Faulkner, Frost, and Hemingway. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Pre requisite: Eligibility for ENC1101
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AML2020 AMERICAN LITERATURE
Selected masterpieces of American literature since 1900 including works of Hawthorne, Whitman, Melville, and Crane. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Pre requisite: Eligibility for ENC1101
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AML2600 AFRICAN-AMERICAN WRITERS
Fiction, nonfiction, poetry, and drama by African-American writers such as Hammon, Wheatley, Mc Millan, Hughes, Wright, Ellison, Baldwin, Walker, and Morrison. Meets Area 2A and 8 general education requirements for the A.A. degree. Meets Areas 2A or 5 general education requirements for the A.S. degrees. Pre requisite: Eligibility for ENC1101
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AML2631 HISPANIC AMERICAN LITERATURE
A view of the Latino/hispanic-American experience as illustrated in literature. Course will explore issues of exile, acculturation, disenfranchisement and indentity, among others. Readings shall reflect the diversity of the Latino community by including selections in various genres. Literary contributions from Mexican-American, Puerto Rican, and Cuban-American writers, among others, will be surveyed.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

AMT0001 BASIC ELECTRICITY
The study of laws and theory of electricity and its application to aircraft systems, components, and circuits, to include practical knowledge of the different types of complex circuitry found in modern aircraft. Student fee charged.
Lec Hrs = 34  Lab Hrs = 50  Oth Hrs = 0  Fees = 50.00

AMT0010 AIRCRAFT DRAWINGS
This course covers aircraft drawings, care and use of blueprints, isometrics, orthographic and auxiliary projection lines and section, dimensions, limits, tolerances and allowances, geometric, construction, practical layout work and identification of standard parts and material, use of instruments, drawing and interpretation of free hand sketches of repairs and alterations, and use of various types of charts and graphs.
Lec Hrs = 11  Lab Hrs = 15  Oth Hrs = 0  Fees = 0.00

AMT0020 WEIGHT AND BALANCE
Familiarizes the student with the importance of weight and balance control, the procedures for weighing an aircraft, the computations necessary to arrive at current and balance data, and the disposition of weight and balance forms and records. The use of loading graphs and charts relating to the aircraft's center of gravity envelope is taught. Student fee charged.
Lec Hrs = 16  Lab Hrs = 23  Oth Hrs = 0  Fees = 25.00

AMT0030 FLUID LINES AND FITTINGS
Prepares the student to fabricate and install rigid and flexible lines and fittings with regard to bends, tools, and lubricants. Provides training in the area of identification of materials, fittings and routing of fluid lines.
Lec Hrs = 8  Lab Hrs = 16  Oth Hrs = 0  Fees = 30.00

AMT0040 MATERIALS AND PROCESSES
Familiarizes students with the methods used to identify and select aircraft materials and with various heat treating processes. Provides experience in the use of non-destructive methods of inspection and evaluation. Provides instruction in correct shop practices and procedures and the use of special tools. Areas covered are torque values and torquing methods, safety wiring, use of precision measuring equipment, shop safety, and technicians' ethics and legal responsibilities.
Lec Hrs = 39  Lab Hrs = 41  Oth Hrs = 0  Fees = 0.00

AMT0050 GROUND OPERATIONS AND SERVICING
Familiarizes the student with the proper methods of starting ground operating, servicing and securing aircraft.
Lec Hrs = 10  Lab Hrs = 19  Oth Hrs = 0  Fees = 0.00

AMT0060 CLEANING AND CORROSION CONTROL
Provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and non-ferrous metals. The course deals with the types of cleaners and methods of cleaning aircraft and aircraft components. Student fee charged.
Lec Hrs = 12  Lab Hrs = 26  Oth Hrs = 0  Fees = 25.00

AMT0070 APPLIED MATHEMATICS
Reviews principles of mathematical functions and studies their application to aircraft and powerplant maintenance operations.
Lec Hrs = 13  Lab Hrs = 7  Oth Hrs = 0  Fees = 0.00
AMT0081 FAR'S, FORMS & PRIVILEGES (1)
Familiarizes the student with FAA regulations, advisory circulars, and other government and industry publications, proper terminology and procedures for the execution of log books and major repair and alteration forms, and privileges and limitations as they apply to the certified mechanic. Student fee charged.
Lec Hrs = 19 Lab Hrs = 16 Oth Hrs = 0 Fees = 10.00

AMT0090 BASIC PHYSICS (0)
Provides an understanding of energy and matter and how their relationships apply to aircraft maintenance.
Lec Hrs = 13 Lab Hrs = 7 Oth Hrs = 0 Fees = 0.00

AMT0110 AIRCRAFT WOOD STRUCTURES (0)
Aircraft wood structures are covered in this section and familiarizes the student with the different types of wood used in aircraft structures as well as methods of repair to wood structures. Student fee charged.
Lec Hrs = 9 Lab Hrs = 2 Oth Hrs = 0 Fees = 25.00

AMT0115 AIRCRAFT COVERINGS (0)
Student will gain knowledge and skills to inspect, test, and repair fabric-covering materials. The student will be able to select and apply all types of fabric covering, including the synthetics types, and use of proper materials to finish the material. Student fee charged.
Lec Hrs = 8 Lab Hrs = 4 Oth Hrs = 0 Fees = 40.00

AMT0120 AIRCRAFT FINISHES (1)
Student will acquire the ability to properly use a paint spray gun to apply various types of finishes on a variety of surfaces. The student will be able to apply trim lines and aircraft identification number, touch up paint defects, and identify and select aircraft finishing materials. Student fee charged.
Lec Hrs = 10 Lab Hrs = 20 Oth Hrs = 0 Fees = 0.00

AMT0130 SHEET METAL STRUCTURES (5)
Student is provided with knowledge and skills needed to inspect, maintain, and repair sheet metal structures and components. The course provides the student an introduction to fiberglass, composite and other type non-metallic structural materials and methods of construction using these materials. Student fee charged.
Lec Hrs = 41 Lab Hrs = 116 Oth Hrs = 0 Fees = 75.00

AMT0140 AIRCRAFT WELDING (1)
A theory and practice of welding methods used in aircraft construction and repair is thoroughly covered with emphasis on gas welding and advanced work in arc welding. Lab fee is required.
Lec Hrs = 15 Lab Hrs = 25 Oth Hrs = 0 Fees = 50.00

AMT0155 ASSEMBLY AND RIGGING (2)
Student will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting fault flight characteristics. Student fee charged.
Lec Hrs = 20 Lab Hrs = 45 Oth Hrs = 0 Fees = 40.00

AMT0160 AIRFRAME INSPECTION (0)
Students will acquire the knowledge and skills needed to perform a 100 hour inspection of an aircraft. The student will demonstrate knowledge of FARs by checking appropriate A.D.'s classifying repairs, and pinpointing specific service problems. The student will complete the required maintenance forms, records, and inspection reports required by Federal Air Regulations. Student fee charged.
Lec Hrs = 5 Lab Hrs = 15 Oth Hrs = 0 Fees = 25.00

AMT0200 LANDING GEAR SYSTEMS (3)
Student will receive training in the proper methods of inspection, servicing and repair of landing gear retraction systems, shock struts, brakes, wheels, tires and steering systems. Rigging of various types retractable landing gear systems will be covered in detail. Student fee charged.
Lec Hrs = 35 Lab Hrs = 50 Oth Hrs = 0 Fees = 50.00

AMT0210 HYDRAULIC AND PNEUMATICS SYSTEMS (2)
The student will study the theory of operation, maintenance requirements, and alignments of various hydraulic components and systems. The course will provide the student with the knowledge of pneumatics as used in aircraft operation. The course covers fluid flow, identifies the various actuating units, type of seals, pumps, and differences between hydraulics and pneumatics. Student fee charged.
Lec Hrs = 35 Lab Hrs = 40 Oth Hrs = 0 Fees = 50.00

AMT0220 CABIN ATMOSPHERE CONTROL SYSTEMS (1)
This unit covers the various systems used to condition air and cabin pressurization as well as practical experience in inspecting, checking, troubleshooting, and servicing the oxygen system. Student fee charged.
Lec Hrs = 20 Lab Hrs = 30 Oth Hrs = 0 Fees = 40.00

AMT0230 AIRCRAFT INSTRUMENTS SYSTEMS (1)
A basic familiarization of aircraft instruments and their function to include removal, installation, and the installed testing of such instruments. Student fee charged.
Lec Hrs = 15 Lab Hrs = 10 Oth Hrs = 0 Fees = 40.00

AMT0240 COMMUNICATIONS AND NAVIGATION SYSTEM (1)
This course introduces the student with basic auto pilot operation and familiarizes him with the installation requirements and use of the various communication and navigation systems. Student fee charged.
Lec Hrs = 25 Lab Hrs = 5 Oth Hrs = 0 Fees = 40.00

AMT0250 AIRCRAFT FUEL SYSTEMS (1)
The student is provided with the knowledge and skills needed to maintain fuel systems and fuel system components. He/she will be able to inspect, check, maintain, and repair aircraft fuel system components, fuel dump systems, fuel management and transfer systems, and perform refueling operations. Student fee charged.
Lec Hrs = 17 Lab Hrs = 23 Oth Hrs = 0 Fees = 40.00

AMT0260 AIRCRAFT ELECTRICAL SYSTEMS (3)
The types and characteristics of aircraft electrical circuits and components are compared and evaluated. Advanced electrical systems as used in corporate and airline aircraft are studied. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment. Student fee charged.
Lec Hrs = 45 Lab Hrs = 55 Oth Hrs = 0 Fees = 50.00

AMT0270 POSITION AND WARNING SYSTEMS (1)
This course presents the student with the inspection, servicing and maintaining of position and warning systems. Included in this area are navigation lights, beacons, and lights indicating the position of various aircraft components. Student fee charged.
Lec Hrs = 10 Lab Hrs = 20 Oth Hrs = 0 Fees = 40.00

AMT0285 ICE, RAIN, & FIRE PROTECTION (1)
Introduces the student to the basics of ice and rain control as it relates to aircraft surfaces, propellers, windshields, and other components. Methods of ice prevention and ice elimination are taught, provides the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of airframe fire detecting and extinguishing systems. Student fee charged.
Lec Hrs = 10 Lab Hrs = 20 Oth Hrs = 0 Fees = 40.00

AMT0300 RECIPROCATING ENGINES (6)
The course covers theory and fundamental requirements for aircraft engines, basic parts of internal combustion engines, 2 stroke and 4 stroke cycle, power measurements and calculations, conversion of heat energy into mechanical energy,
horsepower, piston displacement, compression ratio, types of horsepower, crankcase assembly, reduction gearing, crankshafts, and rod assemblies, cylinder and piston assemblies, and bearings used in reciprocating engines. Student fee charged.

Lec Hrs = 58 Lab Hrs = 133 Oth Hrs = 0 Fees = 150.00

AMT0310 TURBINE ENGINES
A thorough study of the theory of operation of turbine engines and the function of the related engine components such as compressors, fuel controls, fuel pumps, governors, turbines, etc. Course encounters disassembly, inspection, minimal repairs reassembly test run, and final adjustment. Corequisites: AMT0300, AMT0400, AMT0420, AMT0320. Student fee charged.

Lec Hrs = 55 Lab Hrs = 55 Oth Hrs = 0 Fees = 75.00

AMT0320 ENGINE INSPECTION
A course study of which details the correct methods of engine removal and installation, and run up testing, including the final adjustments according to FAA regulations and manufacturer’s recommendations. Student fee charged.

Lec Hrs = 4 Lab Hrs = 11 Oth Hrs = 0 Fees = 40.00

AMT0400 ENGINE INSTRUMENT SYSTEMS
Students will have a knowledge of operation, installation, marking and interpretation of powerplant instruments powered by or actuated by non-electrical means. They will be able to install, adjust, and calibrate instruments in accordance with FAA and manufacturer’s recommendations. This course will provide experience in inspection, checking, servicing, troubleshooting, and repair of engine instrument systems that are electrical in nature. Student fee charged.

Lec Hrs = 10 Lab Hrs = 15 Oth Hrs = 0 Fees = 25.00

AMT0410 ENGINE FIRE PROTECTION SYSTEMS
To provide the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of engine fire detecting and extinguishing systems. Student fee charged.

Lec Hrs = 5 Lab Hrs = 10 Oth Hrs = 0 Fees = 40.00

AMT0420 ENGINE ELECTRICAL SYSTEMS & APU’S
This course provides knowledge and skills necessary to perform electrical repairs, installations, adjustments, and service. The subject area includes alternators, generators, voltage regulation, and paralleling of generators. The student will be introduced to the operational principles of auxiliary power units. Student fee charged.

Lec Hrs = 24 Lab Hrs = 35 Oth Hrs = 0 Fees = 75.00

AMT0435 LUBRICATION SYSTEMS
Provides a comprehensive knowledge of the purpose and function of lubricants and lubrication system for powerplants. Gives experience in identifying and selecting lubricants, as well as, inspecting, checking, servicing and troubleshooting repair of the system and components. Student fee charged.

Lec Hrs = 30 Lab Hrs = 40 Oth Hrs = 0 Fees = 75.00

AMT0440 IGNITION SYSTEMS
Students will have knowledge of the operation, repair, inspection, and service of reciprocating and jet power plant ignition systems. They will be able to overhaul and troubleshoot the various components of each system. Student fee charged.

Lec Hrs = 38 Lab Hrs = 47 Oth Hrs = 0 Fees = 75.00

AMT0450 ENGINE FUEL SYSTEMS
Student is provided with knowledge and skills needed to maintain fuel system components. Student will be able to inspect, maintain, check, and repair engine fuel system components. Student fee charged.

Lec Hrs = 10 Lab Hrs = 15 Oth Hrs = 0 Fees = 0.00

AMT0451 FUEL METERING SYSTEMS
Provides the student with the necessary information and practice necessary to inspect, check, service, troubleshoot, and repair reciprocating and turbine fuel metering system. The theory and practical application of carburetion, fuel injection systems, and water injection systems are also learned. Fuel pumps, filters, and strainers are discussed and practical experience is gained in these areas. Student fee charged.

Lec Hrs = 24 Lab Hrs = 35 Oth Hrs = 0 Fees = 75.00

AMT0460 INDUCTION SYSTEMS
Gives the student an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling system. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. Student fee charged.

Lec Hrs = 11 Lab Hrs = 14 Oth Hrs = 0 Fees = 40.00

AMT0475 ENGINE COOLING & EXHAUST SYSTEMS
This course provides the student with an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling system. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. Student fee charged.

Lec Hrs = 41 Lab Hrs = 49 Oth Hrs = 0 Fees = 75.00

AMT1001 BASIC ELECTRICITY
Basic electricity. The study of laws and theory of electricity and its application to aircraft systems, components, and circuits, to include practical knowledge of the different types of complex circuitry found in modern aircraft.

Lec Hrs = 34 Lab Hrs = 50 Oth Hrs = 0 Fees = 50.00

AMT1010 AIRCRAFT DRAWINGS
This course covers aircraft drawings, care and use of blueprints, isometrics, orthographic and auxiliary projection lines and sections, dimensions, limits, tolerances and allowances, geometric, construction, practical layout work and identification of standard parts and materials, use of instruments, drawing and interpretation of free hand sketches of repairs and alterations, and use of various types of charts and graphs.

Lec Hrs = 11 Lab Hrs = 15 Oth Hrs = 0 Fees = 0.00

AMT1020 WEIGHT AND BALANCE
Familiarizes the student with the importance of weight and balance control, the procedures for weighting an aircraft, the computations necessary to arrive at current and balance data, and the disposition of weight and balance forms and records. The use of loading graphs and charts relating to the aircraft's center gravity envelope is taught.

Lec Hrs = 16 Lab Hrs = 23 Oth Hrs = 0 Fees = 25.00

AMT1030 FLUID LINES AND FITTINGS
Prepares the student to fabricate and install rigid and flexible lines and fittings with regard to bends, tools, and lubricants. Provides training in the area of identification of materials, markings and routing of fluid lines.

Lec Hrs = 8 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00
AMT1040 MATERIALS AND PROCESSES (2)
Familiarizes students with the methods used to identify and select aircraft materials and with various heat treating processes. Provides experience in the use of non-destructive methods of inspection and evaluation. Provides instruction in correct shop practices and procedures and the use of special tools. Areas covered are torque values and torquing methods, safety wiring, use of precision measuring equipment, shop safety, and technician's ethics and legal responsibilities.
Lec Hrs = 25      Lab Hrs = 40      Oth Hrs = 0      Fees = 75.00

AMT1050 GROUND OPERATIONS AND SERVICING (1)
Familiarizes the student with the proper methods of starting ground operating servicing and securing aircraft.
Lec Hrs = 10      Lab Hrs = 19      Oth Hrs = 0      Fees = 50.00

AMT1060 CLEANING AND CORROSION CONTROL (1)
Provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and nonferrous metals. The course deals with the types of cleaners and methods of cleaning aircraft and aircraft components.
Lec Hrs = 12      Lab Hrs = 26      Oth Hrs = 0      Fees = 25.00

AMT1070 APPLIED MATHEMATICS (1)
Reviews principles of mathematical functions and studies their application to aircraft and powerplant maintenance operations.
Lec Hrs = 13      Lab Hrs = 7      Oth Hrs = 0      Fees = 0.00

AMT1081 FAR'S, FORMS & PRIVILEGES (1)
Familiarizes the student with FAA regulations, advisory circulars, and other government and industry publications, proper terminology and procedures for the execution of log books and major repair and alteration forms, and privileges and limitations as they apply to the certified mechanic. Student fee charged.
Lec Hrs = 19      Lab Hrs = 16      Oth Hrs = 0      Fees = 10.00

AMT1090 BASIC PHYSICS (1)
Provides an understanding of energy and matter and how their relationships apply to aircraft maintenance.
Lec Hrs = 13      Lab Hrs = 7      Oth Hrs = 0      Fees = 0.00

AMT1110 AIRCRAFT WOOD STRUCTURES (1)
Aircraft wood structures are covered in this section and familiarizes the student with the different types of wood used in aircraft structures as well as methods of repair to wood structures. Student fee charged.
Lec Hrs = 9      Lab Hrs = 2      Oth Hrs = 0      Fees = 25.00

AMT1115 AIRCRAFT COVERINGS (1)
Student will gain knowledge and skills to inspect, test, and repair fabric covering materials. The student will be able to select and apply all types of fabric covering, including the synthetics types, and use of proper materials to finish the material.
Lec Hrs = 8      Lab Hrs = 4      Oth Hrs = 0      Fees = 40.00

AMT1120 AIRCRAFT FINISHES (1)
Student will acquire the ability to properly use a paint spray gun to apply various types of finishes on a variety of surfaces. The student will be able to apply trim lines and aircraft identification number, touch up paint defects, and identify and select aircraft finishing materials.
Pre or Corequisite: AMT1110
Lec Hrs = 10      Lab Hrs = 20      Oth Hrs = 0      Fees = 40.00

AMT1130 SHEET METAL STRUCTURES (4)
Student is provided with knowledge and skills needed to inspect, maintain, and repair sheet metal structures and components. The course provides the student an introduction to fiberglass, composite and other type non-metallic structural material and methods of construction using these materials. Student fee charged.
Lec Hrs = 41      Lab Hrs = 116      Oth Hrs = 0      Fees = 75.00

AMT1140 AIRCRAFT WELDING (1)
A theory and practice of welding methods used in aircraft construction and repair is thoroughly covered with emphasis on gas welding and advanced work in heli arc welding. Lab fee is required.
Lec Hrs = 15      Lab Hrs = 25      Oth Hrs = 0      Fees = 50.00

AMT1155 ASSEMBLY AND RIGGING (2)
Students will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics.
Lec Hrs = 20      Lab Hrs = 45      Oth Hrs = 0      Fees = 40.00

AMT1160 AIRFRAME INSPECTION (1)
Students will acquire the knowledge and skills needed to perform a 100 hour inspection of an aircraft. The student will demonstrate knowledge of FARs by checking appropriate A.D.'s classifying repairs, and pinpointing specific service problems. The student will complete the required maintenance forms, records, and inspection reports required by Federal Air Regulations.
Lec Hrs = 5      Lab Hrs = 15      Oth Hrs = 0      Fees = 25.00

AMT1170 TEST /REVIEW/PRACTICAL (1)
Lec Hrs = 13      Lab Hrs = 25      Oth Hrs = 0      Fees = 80.00

AMT1200 LANDING GEAR SYSTEMS (2)
Student will receive training in the proper methods of inspection, servicing and repair of landing gear retraction systems, shock struts, brakes, wheels, tires and steering systems. Rigging of various types of retractable landing gear systems will be covered in detail.
Lec Hrs = 35      Lab Hrs = 50      Oth Hrs = 0      Fees = 50.00

AMT1210 HYDRAULIC AND PNEUMATICS SYSTEMS (2)
The student will study the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. The course will provide the student with the knowledge of pneumatics as used in aircraft operation. The course covers fluid flow, identifies the various actuating units, types of seals, pumps, and differences between hydraulics and pneumatics.
Lec Hrs = 35      Lab Hrs = 40      Oth Hrs = 0      Fees = 50.00

AMT1220 CABIN ATMOSPHERE CONTROL SYSTEMS (1)
This unit covers the various systems used to condition air and cabin pressurization as well as practical experience in inspecting, checking, troubleshooting, and servicing the oxygen system. Student fee charged.
Lec Hrs = 20      Lab Hrs = 30      Oth Hrs = 0      Fees = 40.00

AMT1230 AIRCRAFT INSTRUMENTS SYSTEMS (1)
A basic familiarization of aircraft instruments and their function to include removal, installation, and the installed testing of such instruments.
Lec Hrs = 15      Lab Hrs = 10      Oth Hrs = 0      Fees = 40.00

AMT1240 COMMUNICATION AND NAVIGATION SYSTEMS (1)
This course introduces the student with basic auto pilot operation and familiarizes him with the installation requirements and use of the various communication and navigation systems.
Lec Hrs = 25      Lab Hrs = 5      Oth Hrs = 0      Fees = 40.00
AMT1250 AIRCRAFT FUEL SYSTEMS (1)  
The student is provided with the knowledge and skills needed to maintain fuel systems and fuel system components. He/she will be able to inspect, check, maintain, and repair aircraft fuel system components, fuel dump systems, fuel management and transfer systems, and perform refueling operations.
Lec Hrs = 17  Lab Hrs = 23  Oth Hrs = 0  Fees = 40.00

AMT1260 AIRCRAFT ELECTRICAL SYSTEMS (3)  
The types and characteristics of aircraft electrical circuits and components are compared and evaluated. Advanced electrical systems as used in corporate and airline aircraft are studied. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment.
Lec Hrs = 45  Lab Hrs = 55  Oth Hrs = 0  Fees = 50.00

AMT1270 POSITION AND WARNING SYSTEMS (1)  
This course presents the student with the inspection, servicing and maintaining of position and warning systems. Included in this area are navigation lights, beacons, and lights indicating the position of various aircraft components.
Lec Hrs = 10  Lab Hrs = 20  Oth Hrs = 0  Fees = 40.00

AMT1285 ICE, RAIN, & FIRE PROTECTION (1)  
Introduces the student to the basics of ice and rain control as it relates to aircraft surfaces, propellers, windshields, and other components. Methods of ice prevention and ice elimination are taught, provides the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of airframe fire detecting and extinguishing systems. Student fee charged.
Lec Hrs = 10  Lab Hrs = 20  Oth Hrs = 0  Fees = 40.00

AMT2300 RECIPROCATING ENGINES (6)  
The course covers theory and fundamental requirements for aircraft engines; basic parts of internal combustion engines; 2 stroke and 4 stroke cycle, power measurements and calculations conversion of heat energy into mechanical energy, horsepower, piston displacement, compression ratio, types of horsepower, crankcase assembly, reduction gearing, crankshafts and rod assemblies, cylinder and piston assemblies, and bearings used in reciprocating engines.
Lec Hrs = 58  Lab Hrs = 133  Oth Hrs = 0  Fees = 150.00

AMT2310 TURBINE ENGINES (2)  
A thorough study of the theory of operation of turbine engines and the function of the related engine components such as compressors, fuel controls, fuel pumps, governors, turbines, etc. Course encounters disassembly, inspection, minimal repairs reassembly test run, and final adjustment.
Lec Hrs = 55  Lab Hrs = 55  Oth Hrs = 0  Fees = 75.00

AMT2320 ENGINE INSPECTION (1)  
A course study which details the correct methods of engine removal and installation, inspection and run up testing, including the final adjustments according to FAA regulations and manufacturer's recommendations.
Lec Hrs = 4  Lab Hrs = 11  Oth Hrs = 0  Fees = 40.00

AMT2400 ENGINE INSTRUMENT SYSTEMS (1)  
Students will have a knowledge of operation, installation, making and interpretation of powerplant instruments powered by or actuated by non-electrical means. They will be able to install, adjust, and calibrate these instruments in accordance with FAA and manufacturer's recommendations. This course will provide experience in inspection checking, servicing, troubleshooting, and repair of engine instrument systems that are electrical in nature.
Lec Hrs = 10  Lab Hrs = 15  Oth Hrs = 0  Fees = 25.00

AMT2410 ENGINE FIRE PROTECTION SYSTEMS (1)  
To provide the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of engine fire detecting and extinguishing systems.
Lec Hrs = 5  Lab Hrs = 10  Oth Hrs = 0  Fees = 40.00

AMT2420 ENGINE ELECTRICAL SYSTEMS AND APU'S (2)  
This course provides knowledge and skills necessary to perform electrical repairs, installations, adjustments, and service. The subject area includes alternators, generators, voltage regulation, and paralleling of generators. The student will be introduced to the operational principles of auxiliary power units. Student fee charged.
Lec Hrs = 24  Lab Hrs = 35  Oth Hrs = 0  Fees = 75.00

AMT2435 LUBRICATION SYSTEMS (2)  
Provides a comprehensive knowledge of the purpose and function of lubricants and lubrication systems for powerplants. Gives experience in identifying and selecting lubricants, as well as, inspecting, checking, servicing and troubleshooting repair of the system and components.
Lec Hrs = 30  Lab Hrs = 40  Oth Hrs = 0  Fees = 75.00

AMT2440 IGNITION SYSTEMS (2)  
Students will have a knowledge of the operation, repair, inspection, and service of reciprocating and jet power plant ignition systems. They will be able to overhaul and troubleshoot the various components of each system.
Lec Hrs = 38  Lab Hrs = 47  Oth Hrs = 0  Fees = 75.00

AMT2450 ENGINE FUEL SYSTEMS (1)  
Student is provided with knowledge and skills needed to maintain fuel system components. Student will be able to inspect, maintain check, and repair engine fuel system components.
Lec Hrs = 10  Lab Hrs = 15  Oth Hrs = 0  Fees = 40.00

AMT2451 FUEL METERING SYSTEMS (2)  
Provides the student with the necessary information and practice necessary to inspect, check, service, troubleshoot, and repair reciprocating and turbine fuel metering systems. The theory and practical application of carburetion, fuel injection systems, and water injection systems are also learned. Fuel pumps, filters strainers are discussed and practical experience is gained in these areas.
Lec Hrs = 24  Lab Hrs = 35  Oth Hrs = 0  Fees = 75.00

AMT2460 INDUCTION SYSTEMS (1)  
Gives student the knowledge and experience needed to service and maintain induction systems, superchargers, and exhaust systems. Material covered includes controls, indicators, theory of operation and inspection criteria.
Lec Hrs = 11  Lab Hrs = 14  Oth Hrs = 0  Fees = 40.00

AMT2475 ENGINE COOLING AND EXHAUST SYSTEMS (1)  
This course provides the student with an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling systems. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. Student fee charged.
Lec Hrs = 13  Lab Hrs = 17  Oth Hrs = 0  Fees = 40.00

AMT2490 PROPELLERS AND UNDUCTED FANS (2)  
This unit of instruction is designed to cover aircraft engine and turbo prop installations. Areas dealt with are: propeller fundamentals and terminology, synchronizing and ice control systems, identification and selection of propeller lubricants, balancing of propellers, propeller control systems, propeller governing systems, and installation, troubleshooting and removal of propellers. The theory of unducted fans is presented. Student fee charged.
Lec Hrs = 41  Lab Hrs = 49  Oth Hrs = 0  Fees = 75.00

ANT2000 INTRODUCTION TO ANTHROPOLOGY (3)  
An introductory study of the biological evolution and cultural development of human customs, social organization, and institutions. The student is introduced to the major fields of study.
study undertaken by anthropologists. Meets Area 3B and 8
general education requirements for the A.A. degree. Meets
Areas 3 or 5 general education requirements for the A.S.
degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ANT2100 INTRODUCTION TO ARCHAEOLOGY  (3)
The study of past cultures and the ongoing record of human
history. This course reviews the major techniques and theories
used to interpret culture change through time. Meets Area 3B
general education requirements for the A.A. degree. Meets
Areas 3 or 5 general education requirements for the A.S.
degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ANT2211 INTRODUCTION TO WORLD ETHNOLOGY
PEOPLE  (3)
A survey of cultures on differing levels of development,
 focusing upon subsistence, social organization, religion, art,
and culture change. Meets Areas 3B and 8 general education
requirements for the A.A. degree. Meets Areas 3 or 5 general
education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ANT2381 CULTURE AND SOCIETY OF SPAIN  (3)
Spanish culture and society includes a study of Spanish life
and character as it manifests itself in history, regional
personality, celebrations, music, legendary figures, art and
architecture. Special emphasis will be given to the southern
part of Spain, Andalucia's, which conserves today the diverse
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ANT2905 INDEPENDENT STUDY ANTHROPOLOGY  (3)
A directed study course available to both majors and non-
majors who wish to investigate a particular problem related to
the field of Anthropology. The student will make application
for the course to the Head of the Behavioral Sciences Department
via an Instructor with whom the student wants to work.
Prerequisite: Instructor's approval.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ANT2922 ANTHROPOLOGY FIELD SCHOOL  (3)
This lab course is designed to supplement various topics relative
to physical and cultural Anthropology as well as Archaeology. Study is limited to field projects.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

APB1600 PHARMACOLOGY  (2)
A course designed to introduce the Nursing student to the
essential concepts and principles of pharmacology. Included
are the concepts of pharmacokinetics and pharmacotherapeutics. There is an emphasis on the application of
the nursing process as a practical organizational tool utilized
in the care of the patient receiving pharmacological agents.
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ARC1056C DIGITAL MEDIA  (2)
Course is designed to provide a survey of current computer
aided design software related to architecture and building
construction. Lab work concentrates on a variety of computer
applications applicable to the design process. Students will
learn to apply virtual building technology to design, production,
collaboration and information analysis of a project.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 30.00

ARC1126C ARCHITECTURAL DRAWING  (4)
An introduction to principles, methods and applications of
architectural drawing. Basic drafting tools will be used to learn
orthographic projection to draw multi-view drawings including
architectural design floor plans, elevations and sections,
single-view drawings including paraline axonometric drawings
and perspective drawings including one- and two- point.
Lec Hrs = 16 Lab Hrs = 48 Oth Hrs = 0 Fees = 45.00

ARC1301 ARCHITECTURAL DESIGN I  (4)
This course covers basic two and three-dimensional design
fundamentals, architectonic principles and architectural design
skills. Techniques of model making are learned through explorations in defining and understanding architectural space.
Pre or Corequisite: ARC2201, ARC1126C
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 45.00

ARC1302 ARCHITECTURAL DESIGN II  (4)
This course furthers the study of three- dimensional design fundamentals, architectural space and architectural principles
through the application of more advanced model making techniques, orthographic drawing and one and two point perspectives. The architectural design process is studied
through the analysis and resolution of basic building programs
and basic natural and man-made environmental factors.
Prerequisite: ARC1301, ARC2201 with a grade of “C” or higher.
Corequisite: ARC1701
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 45.00

ARC1701 SURVEY OF ARCHITECTURAL HISTORY  (3)
A general survey of social, political, and cultural factors which have generated architecture from prehistoric times through the
Fifteenth Century. Meets Area 2H general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ARC2201 THEORY OF ARCHITECTURE  (3)
This course provides an understanding of architectonic elements, principles and aesthetics in architecture. It analyzes
their application in contemporary and historical architecture and
relates their application to architecture design studio solutions. The course also covers the work and philosophies of
contemporary architects.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ARC2303 ARCHITECTURAL DESIGN III  (4)
This course emphasizes the analysis and resolution of the
natural and man-made environmental context as a generator of
architectural design ideas. The analysis of architectural building
programs and architectonic principles are applied to further
define the organization, form, circulation and function of
architectural space in buildings.
Prerequisite: ARC1302 ARC2201
Lec Hrs = 16 Lab Hrs = 96 Oth Hrs = 0 Fees = 45.00

ARC2304 ARCHITECTURAL DESIGN IV  (4)
This course covers the development of architectonic
conceptual ideas from program requirements and contextual
factors as generators of architectural design. Architectonic
principles of enclosure, massing, articulation of form,
proportions, geometry, scale and structures are applied in the
development of imagery for building design. A portfolio is
created from each student’s best work for the purpose of
transfer admission to a university program.
Prerequisite: ARC2303 ARC2461
Lec Hrs = 16 Lab Hrs = 96 Oth Hrs = 0 Fees = 45.00

ARC2461 MATERIALS AND METHODS OF
CONSTRUCTION  (4)
Introduction to materials and methods of construction with
emphasis on wood, masonry, concrete, and steel. The
evaluation of materials, functional applications and code
requirements are stressed.
Prerequisite: ARC1301
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ARC2580 STRUCTURES  (4)
Basic study in the principles and evaluations of structures as
applied to architecture. Major topics of study include statics,
strength, and the characteristics of beam and column behavior.
This course will enable the student to develop a structural
ARR2290 ADVANCED AUTOBODY REPAIR (9)
A course designed to teach intermediate and advanced concepts and techniques of Autobody Repair. This course includes manufacturing processes and materials, damage assessment, body measurement, advanced welding, exotic metal and plastic panel repairs, unibody and frame straightening, glass, convertible top and electrical system repair.
Lec Hrs = 72 Lab Hrs = 144 Oth Hrs = 0 Fees = 0.00

ART1201C 2 D DESIGN (3)
Two-dimensional study of form, principles of organization and the elements of design fundamental for creative work in 2-D visual arts.
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 0.00

ART1203C 3D DESIGN (3)
Three-dimensional study of form, principles of organization and elements of design fundamental for creative work in 3-D visual arts.
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 10.00

ART1300C DRAWING I (3)
Study of landscape and still life composition utilizing wet and dry drawing media.
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 0.00

ART1301C DRAWING II (3)
An extension of the content of Drawing I with increased concentration upon analytical description, pictorial composition, and drawing as a means of visual communication of ideas.
Prerequisite: ART1300C
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 0.00

ART1600C COMPUTER ART (3)
A basic course in how the computer can be adapted and used in the visual arts. Creative uses of the computer and assorted hardware will introduce the student to fine art and graphic art applications. A knowledge of programming is not required.
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 20.00

ART2205C COLOR AND COMPOSITION (3)
A basic course in the exploration of color theories, color systems, and color relativity in regard to optical sensation, lighting variation and psychological impact.
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 0.00

ART2330C LIFE DRAWING (3)
Study of human and animal forms utilizing various wet and dry media.
Prerequisite: ART1300C
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 40.00

ART2400C BEGINNING PRINTMAKING (3)
A study of the processes and techniques in Intaglio and Relief printing. Instructor's approval or Prerequisite: ART1201C ART1300C
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 25.00

ART2500C PAINTING I (3)
An introduction to creative techniques and composition applied to oil painting and acrylic media.
Prerequisite: ART1201C ART1300C
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 0.00

ART2501C PAINTING II (3)
A creative exploration of oil or acrylic techniques and/or water media with an emphasis on composition.
Prerequisite: ART2500C
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 0.00
ART2540C WATERCOLOR (3)
A creative exploration of watercolor techniques and media with an emphasis on composition.
Prerequisite: ART1201C ART1300C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 0.00

ART2701C SCULPTURE (3)
A three-dimensional study of form and concept utilizing physical material to occupy real space either free standing or bas-relief. The principles of organization and the element of design fundamentals are carried over and expand from 3-D design. Prerequisite: Instructor permission or
Prerequisite: ART1203C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 25.00

ART2750C CERAMICS I (3)
Study of basic ceramic shaping techniques, glazing, decorating and firing.
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 35.00

ART2751C CERAMICS II (3)
A study of advanced techniques in ceramics synthesizing basic skills with more advanced concepts and techniques of forming clay, surface decoration, glazing and firing. Prerequisites: instructor's approval or
Prerequisite: ART2750C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 35.00

ART2905 INDEPENDENT STUDY (3)
A course designed to establish a framework for future self-learning. Students will shape the course to fit their needs by planning activities with a faculty advisor. Exceptions to Prerequisite may be considered by the Art Department Head.
Prerequisite: Instructor permission or
Prerequisite: ART1203C ART1203C ART1300C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 0.00

ART2906 INDEPENDENT STUDY: CERAMICS (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the ceramics process. Prerequisite: Instructor permission
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 35.00

ART2907 INDEPENDENT STUDY: DRAWING (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the drawing process. Instructor's approval and Prerequisite: ART1300C ART2330C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 0.00

ART2908 INDEPENDENT STUDY: SCULPTURE (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the sculpture process. Prerequisite: instructor permission or
Prerequisite: ART1203C ART2701C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 25.00

ART2909 INDEPENDENT STUDY: PAINTING (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the painting process. Prerequisites: Instructor approval or
Prerequisite: ART2500C ART2501C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 0.00

ART2930C SPECIAL TOPICS: PAINTING (3)
A painting studio course centered around topics of current interest or special interest to students. Topics or focus may vary from semester to semester. Special topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Prerequisite: ART2500C ART2501C
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 0.00

ART2932C SPECIAL TOPIC: CERAMICS (3)
A ceramics studio course centered around topics of current interest or special interest to students. Topics or focus may vary from semester to semester. Exception to Prerequisites will be considered by the Art Department Head. Special topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution. Prerequisite: Instructor permission
Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 35.00

ART2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs = 0      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

ART2950 SEMINAR IN ART (3)
A course designed for students who wish to combine the study of Art with travel in a foreign country. Variable content depends on areas visited.
Lec Hrs = 48      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

ART2951 SEMINAR IN ART (6)
A course designed for students who wish to combine the study of Art with travel in a foreign country. Variable content depending on areas visited.
Lec Hrs = 96      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

ASC1010 HISTORY OF AVIATION (3)
A survey of aviation from its beginning with early myths, through gliders, balloon flights and powered flight to the present jet age. Includes effects of wars on the development of civil and military aircraft and discusses significant personnel flights and aircraft in tracing the advancement of general, commercial, and military aircraft. The major emphasis of the course will be directed towards the development of aviation in the United States.
Lec Hrs = 48      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

ASC1100 NAVIGATIONAL SCIENCE I (3)
This course, together with ATT1100, provides the basic aeronautical knowledge for the professional pilot and aviation operation programs. The two courses must be taken concurrently unless the student's major is Airport Operations Management or Aviation Maintenance Management, in which case only ATT1100 is required. The areas of study include airport operations, airspace, flight information publications, basic air navigation including pertinent regulations, preflight planning, cross country navigation, and radio navigation. Successful completion of ATT1100 and ASC1100 will prepare students for the FAA Private Pilot (airplane) Computerized Knowledge Exam.
Corequisite: ATT1100
Lec Hrs = 48      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

ASC1210 METEOROLOGY (3)
A study of the basic concepts of meteorology, temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing, and fog analysis and use of weather data; interpretation of the U.S. Weather Bureau maps, reports and forecasts. Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100
Corequisite: ASC2110 ATT2120
Lec Hrs = 48      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

ASC1550 AERODYNAMICS (3)
An analysis of the physical laws and aerodynamic principles which govern the flight and performance of aircraft stability and control, weight and balance, and aircraft instruments affecting
flight operational considerations of controllable pitch propellers, retractable gear, weather, and precision maneuvers. Prerequisite: private pilot's license or instructor's permission or Placement by Testing Department.

AST1003 ASTRONOMY OF THE SOLAR SYSTEM (3)
Primarily descriptive and conceptual study of the solar system and astronomical methods of general interest. Evening observing sessions in addition to the scheduled course hours may be required. An astronomy laboratory is recommended. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Prerequisite: MAT0024

AST1004 ASTRONOMY OF STARS AND GALAXIES (3)
Primarily descriptive and conceptual study of objects and events beyond the solar system in our galaxy and in other galaxies. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Prerequisite: ASC1100 ATT1100

AST1022L ASTRONOMY LABORATORY (1)
A basic laboratory course to introduce students to the primary astronomical objects: the sun, moon, planets, stars and galaxies. Students will use the naked eye, telescopes and astronomical atlases to make observations of celestial objects. In addition, physical experiments will introduce principles of optics, light, and gravity utilized in astronomy. One three hour lab per week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: ASC1003

AST1037 SCIENTIFIC SEARCH FOR LIFE IN THE UNIVERSE (3)
This interdisciplinary course examines the nature and history of life on earth, possible life-allowing environments within the solar system and in the detecting life in the universe at large. Topics of discussion include the evolution and biochemistry of terrestrial life, the formation of organic compounds in the solar system and other extraterrestrial environments, physical constraints, environment, and strategies for detecting intelligent life in the universe. Placement by Testing Department or Prerequisite: MAT0024

AST2080 PLANETARIUM EDUCATION (3)
Course for teachers and students of Education. Study of the use of the Planetarium in Education. Various audiovisual devices will be employed. Large portions of the course consist of directed study with the student designing and writing his own educational materials pertaining to audio visual concepts in Planetarium Education. Acquaints student with the celestial sphere and planet position. Placement by Testing Department or Instructor Approval.

ATF1100 PRIMARY FLIGHT (3)
This course provides the flight training and experience required by the Federal Aviation Regulations (FAA) part 141 for a Private Pilot Certificate. Student must obtain FAA Private Pilot Certificate in order to receive credit for the course. Flight training fees are paid directly to the College in advance. Corequisite: ASC1100 ATT1100

ATF2200 COMMERCIAL FLIGHT I (3)
This course continues the training and experience begun in primary flight. Together with ATF2210 and ATF2300, it
provides the aeronautical experience required to qualify for the
FAA Commercial Pilot Certificate with instrument rating under
Federal Aviation Regulations part 141. Flight training fees are
paid directly to the College in advance. Prerequisite: private
pilot's license or instructor's permission or
Prerequisite: ATF1100
Corequisite: ASC1210 ASC2110 ATF2600 ATT2120
Lec Hrs = 10 Lab Hrs = 80 Oth Hrs = 0 Fees = 0.00

**ATF2210 COMMERCIAL FLIGHT II** (3)
This course continues the training and experience of
Commercial Flight I. Together with ATF2200 and ATF2300, it
provides the aeronautical experience required to qualify for the
FAA Commercial Pilot Certificate with instrument rating under
Federal Aviation Regulations part 141. During this course, the
student completes coursework to obtain the instrument rating
and begins commercial pilot training. Flight training fees are
paid directly to the College in advance. Prerequisite:
Instructor's approval or
Prerequisite: ATF2200
Corequisite: ATT2110
Lec Hrs = 10 Lab Hrs = 80 Oth Hrs = 0 Fees = 0.00

**ATF2300 COMMERCIAL FLIGHT III** (3)
This is the final of the series of courses designed to provide the
aeronautical experience for a FAA Commercial Pilot Certificate
with instrument rating under Federal Aviation Regulations part 141.
During this course, the student achieves qualification in complex
aircraft. In order to receive credit for this course, the
student must have earned a FAA Commercial Pilot Certificate.
Flight training fees are paid directly to the College in advance. Prerequisite:
Instructor's permission or
Prerequisite: ATF2210
Corequisite: ATT2110
Lec Hrs = 10 Lab Hrs = 80 Oth Hrs = 0 Fees = 0.00

**ATF2400 MULTI ENGINE TRANSITION** (1)
This course provides the flight training and experience required
to obtain an FAA multi-engine rating. In order to receive credit
for this course, the student must have earned a FAA multi-
engine rating. Flight training fees are paid directly to the
College in advance. Prerequisite: Private Pilot Certificate with
Instrument Rating or Instructor's Approval
Corequisite: ATF2200
Lec Hrs = 5 Lab Hrs = 20 Oth Hrs = 0 Fees = 0.00

**ATF2500 FLIGHT INSTRUCTOR TRAINING** (2)
This course provides the flight and ground instruction to train a
commercial pilot to be a flight instructor. Course consists of the
number of dual and solo flying hours and oral instruction
required to pass the FAA flight instructor certificate. In order to receive credit
for this course, the student must have earned a FAA flight instructor certificate.
Training fees are paid directly to the College in advance. Prerequisite:
Commercial Pilot Certificate with Instrument Rating
Lec Hrs = 15 Lab Hrs = 30 Oth Hrs = 0 Fees = 0.00

**ATF2600 FLIGHT SIMULATOR TRAINING** (1)
This course provides a total of 15 hours of training in one of the
Emil Buehler Flight Lab flight training devices at South
Campus. This course may be taken as an elective in any of the
aviation programs. Material covered will be tailored to the
individual depending upon his/her piloting background. This
course may be repeated for a maximum of 3 semester hours to meet a 3
semester hour elective requirement. Student fee charged. Prerequisite: instructor's permission or
Prerequisite: ASC1100 ATF1100 ATT1100
Corequisite: ATF2200
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 75.00

**ATF2630 BASIC INSTRUMENT SIMULATOR** (1)
This course provides a total of 15 hours of training in one of the
Buehler Flight Lab multi-engine flight training devices at South
Campus. The course consists of 5 hours of lecture and 10
hours in the flight training device. This course may be taken as
an elective in any of the aviation programs. This course may be
repeated for a maximum of 3 semester hours to meet a 3
semester hour elective requirement. Student fee charged. Prerequisite: instructor's permission or
Prerequisite: ASC1100 ATF1100 ATT1100
Corequisite: ATF2200
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

**ATT2660 FLIGHT SIMULATOR TURBOPROP** (1)
This course provides a total of 16 hours of training in the Emil
Buehler Flight Lab turboprop flight training device at South
Campus. The course consists of 6 hours of lecture and 10
hours in the flight training device. This course may be taken as
an elective in any of the aviation programs. This course may be
repeated for a maximum of 3 semester hours to meet a 3
semester hour elective requirement. Student fee charged. Prerequisite: Flight Program Manager's prior approval is necessary.
Lec Hrs = 6 Lab Hrs = 10 Oth Hrs = 0 Fees = 200.00

**ATT1100 AERONAUTICAL SCIENCE** (3)
An introduction to the theory of flight, this course is required for
all aviation programs. It includes elementary aerodynamics, the
major components of airplanes and their functions, the
pertinent Federal Aviation Administration (FAA) regulations and
basic airspace, aircraft performance and basic navigation, an
introduction to meteorology and weather services and human
factors. Successful completion of ATT100 and ASC1100 will
prepare students for the FAA Private Pilot (airplane),
Computerized Knowledge Exam. Professional Pilot Technology
and Aviation Operations program majors must take this course concurrently with ASC1100.
Corequisite: ASC1100
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**ATT2110 COMMERCIAL FLIGHT THEORY** (3)
Provides the aeronautical information needed to satisfactorily
complete the FAA Commercial Pilot Knowledge Exam. Subject
matter is tailored to the needs of the advanced pilot. It includes
aerodynamics, airplane performance and systems, navigation,
physiological factors, Federal Aviation Regulations and
weather. It is recommended to complete the instrument rating
before taking this course. Prerequisite: FAA Private Pilot
Certificate or instructor's permission or
Prerequisite: ASC1100 ATT1100
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**ATT2120 INSTRUMENT FLIGHT THEORY** (3)
Prepares student for FAA Instrument Rating (Airplane)
Examination. Physiological factors involved with instrument flying, the
functioning of basic flight instruments and their use in
controlling aircraft under instrument conditions, electronic aids
and their use, communications, the airways system, IFR charts,
regulations and procedures as related to instrument flight. Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100
Corequisite: ASC1210 ASC2110
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**AVM1440 AIRPORT AND AIRLINE SECURITY** (3)
An introduction and analysis of the regulations and laws
governing airport and airline security, including an in-depth
look at Federal Aviation Regulations (FARs) 108, 121, 129,
And 191. Topics of discussion include: a historical perspective
and events that have led to the evolution of aviation security,
preventive measures, and current trends in security. An
introduction to terrorist activities, motives, weapons of mass
destruction, and countermeasures at threats to aviation.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**AVM1940 AIRPORT OPERATIONS INTERNSHIP I** (3)
Practical applicable of acquired knowledge at a certificated
airport. Student exposed to airside related environment
including airfield inspections, security inspections and
enforcement, air traffic control system, navigational aids,
airspace inspections & familiarizations, wildlife issues, environmental impacts. Landside issues such as parking management, ground transportation systems, operational contract administration, revenue control systems, equipment monitoring, and bus operations. Terminal building operations including, physical building inspections, passenger services, passenger flow characteristics, tenant and contractual lease agreements, safety and security of passenger terminals. The student is introduced to airport maintenance programs and systems as well as general aviation aviation. Requires special application and criminal background check. Prerequisite: instructor’s permission or Prerequisite: AVM1440 AVM2301 AVM2410
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVM2301 GENERAL AVIATION MARKETING AND MANAGEMENT (3)
This course is designed to provide an overview of the general aviation industry including its history and important role within the air transportation sector of the economy. The varied uses of general aviation aircraft and the management and marketing role of the fixed base operator are thoroughly explored. Included are the basic marketing concepts and procedures involved in the sale of general aviation aircraft and components to private industry and government. Particular emphasis will be placed on the management of corporate/business aircraft and commuter airlines.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVM2410 AIRPORT MANAGEMENT (3)
Provides a comprehensive examination of the major functions of airport management and the concepts underlying airport planning and construction. The controlling factors in the development of an airport, such as size and forecasting volumes, design considerations; including runways configurations, site, location requirements, master planning and zoning laws will be examined. The socioeconomic effect of airports on the communities they serve will be explored.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVM2450 AIRPORT PLANNING AND DESIGN (3)
Introduction to the initial design of airports and adaptations made as airports experience growth. Topics of discussion include: analysis of runway and taxiway design, terminal ramp areas, terminal facilities, airport parking and roadway systems based on airport capacity forecasts, intended use, funding, and community demographics. Discussions also include the modification and adaptation of existing airport facilities, airport master plans, air cargo facilities, airport access, and environmental impacts of airport planning and design.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVM2510 AIRLINE MANAGEMENT (3)
An introduction to the administrative aspects of airline operation and management. Topics include the structure of the airline industry in the United States including first, second, third level carriers, the annual profit plan, uniform system of accounts and reports, organizational planning, demand analysis, scheduling, the theory of pricing, fleet planning, facilities planning and airline financing.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVM2941 AIRPORT OPERATIONS INTERNSHIP II (3)
Practical application of acquired knowledge at a certificated airport. The student will be exposed to the finance, business, legal, and public relations aspects of Airport Management. Intern will gain experience in the collection of rents and allocation of monies in airport operation. Receive knowledge on how grant money is applied for and received as well as the business aspect of leasehold compliance. Exposure to legal aspects of airport operation, including compliance with federal and state laws, liability claims and procedures. Exposure to Airport Planning, Airport Master Plan, construction and refurbishment of airport facilities, airport layout plan, and airspace studies. Work with airport public relations and marketing personnel on communicating with media and marking the airport as a business enterprise toward potential airlines and tenants. Requires special application and criminal background check. Prerequisite: instructor’s permission or Prerequisite: AVM1440 AVM2301 AVM2410
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVM2950 AVIATION EDUCATION TRAVEL SEMINAR (1)
Through a combination of Lecture and observation, this travel seminar to the Washington, D.C. area is designed to provide aviation students with an overview of the role played by major aviation associations, congressional subcommittees and Federal agencies that shape the aviation industry. Student will also have a guided tour of aeronautical museums or facilities.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

AVS0090C OCP E: AVIONIC FUNDAMENTALS ITEMS (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.
Lec Hrs = 90 Lab Hrs = 90 Oth Hrs = 0 Fees = 48.00

AVS0091C OCP F: AVIONIC INSTALLER (180 HRS) (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.
Lec Hrs = 90 Lab Hrs = 90 Oth Hrs = 0 Fees = 48.00

AVS0092C OCP G: AVIONICS COMMUNICATION SYSTEM (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.
Lec Hrs = 90 Lab Hrs = 90 Oth Hrs = 0 Fees = 48.00

AVS0093C OCP H: NAVIGATION/SUPPORT SYSTEMS I (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.
Lec Hrs = 90 Lab Hrs = 90 Oth Hrs = 0 Fees = 48.00

BCN1251C BUILDING CONSTRUCTION DRAWING I (4)
This is the first in a two-course sequence of construction drawing courses. The first half of the semester will include a review of basic drafting techniques. The second half will be devoted to an in-depth study of residential construction working
drawings and how they are prepared. AutoCAD will be used extensively as one of the tools for preparing drawings.
Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 50.00

**BCN1272 BUILDING CONSTRUCTION PLANS INTERPRETATION**  (2)
This course is designed to provide an overview of construction documents and to develop the student's ability to quickly interpret working drawings. Emphasis is on architectural and structural details with limited coverage on mechanical and electrical aspects.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCN1930 BUILDING CONSTRUCTION SPECIAL TOPIC**  (2)
An introductory course for the student presently working in the building construction industry. Subjects include the South Florida Building Code, formwork and shoring.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCN2253C BUILDING CONSTRUCTION DRAWING II**  (4)
This is the second in the two-sequence of building construction drafting courses. The focus of this course will be on the development of advanced drafting techniques while gaining an understanding of more complex construction procedures for commercial buildings. Advanced AutoCAD techniques will be used extensively as one of the tools for preparing drawings.
Prerequisite: BCN1251C
Lec Hrs = 48  Lab Hrs = 48  Oth Hrs = 0  Fees = 50.00

**BCN2560 MECHANICAL AND ELECTRICAL SYSTEMS**  (3)
Acquaints student with mechanical and electrical equipment commonly used in high rise and commercial buildings. Presents fundamentals of air conditioning, heating, lighting, communicating and wiring for electrical equipment. Includes a study of specialty equipment such as solar heating.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCN2614C CONSTRUCTION ESTIMATING II**  (3)
A study of construction contracts, contractor responsibilities, job planning, scheduling, selection of equipment, methods of construction and safety standards. The student is required to make quantity takeoffs from a set of plans to do pricing of labor and materials.
Prerequisite: BCT1770
Lec Hrs = 16  Lab Hrs = 48  Oth Hrs = 0  Fees = 50.00

**BCN2742 CONTRACTOR'S LICENSE PREPARATION**  (4)
A study designed to prepare for the general contractor's examination. State and Federal laws, safety codes, building codes, construction methods and technology, and practical field knowledge leading to Class, I, II or III license.
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 7.00

**BCN2760 CONSTRUCTION PLAN REVIEW**  (2)
A course of training to prepare the student to function as an examiner of construction documents for permit to erect structures in compliance with all appropriate building codes. The course is designed around the mechanics of review presently employed by every municipality and other permitting agencies. This course is of particular value to presently employed inspectors preparing for promotion to the position of Plan Reviewer and presently employed reviewers who wish to hone skills, as well as students seeking a career in building code enforcement.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT1706 CONSTRUCTION DOCUMENTS**  (2)
This is designed to familiarize students with documents used in the construction industry, facets of the construction process, contractual relationships, the relationship of documents to each phase of construction and an overview of the Construction Specifications Institute's (CSI) 16 divisions. At the conclusion of the course, students will have gained the proficiency necessary to pass the Construction Documents Technologist (CDT) certification exam given by the CSI.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT1743 BUILDING CONSTRUCTION LAW**  (2)
A study of the legal aspects of construction contracts and the responsibilities arising particularly from the field operations. Also includes relationship of general contractor to owner, architect, and subcontractor; mechanics lien law; bonds; labor law; and other statutes and ordinances regulating contractors.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT1750 BUILDING CONSTRUCTION FINANCING**  (2)
A study of building construction financing and related contract requirements. Topics include construction loans, permanent building mortgages, construction bids and contracts, penalty and incentive provisions, progress payments and retention, escalation provisions, cost extras performance and bid bonds, company profits, cash flow and business loans.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT1767 OSHA STANDARDS**  (1)
This course is designed to give students an awareness of the hazards associated with the construction industry's working environment. Emphasis is on OSHA regulations and the knowledge to improve the overall safety on a job site. At the successful conclusion of the course, students will receive OSHA certification.
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT2040 MEP PLANS INTERPRETATION**  (2)
This course is designed to develop the student's ability to quickly interpret working drawings. Emphasis is on the details and specifications of mechanical, electrical, and plumbing plans.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT2710 INFRASTRUCTURE COORDINATION**  (2)
This course provides the student with an overview of the various agencies related to the construction industry. Special emphasis is on the need for and the manner of coordinating with these agencies. Students will receive exposure to the variety of permits, learn to interface with the agencies in order to coordinate the permit process, and understand how this coordinates with the project.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT2760 BUILDING CODES AND REGULATIONS**  (3)
A rigorous review and study of the South Florida Building Code as it applies to structures and safety. For professionals employed as inspectors, architects, engineers and contractors.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**BCT2787C MECHANICAL ELECTRICAL PLUMBING DRAWINGS**  (3)
The focus of this course will be on the development of advanced drafting techniques while gaining an understanding of more complex construction procedures for commercial and institutional buildings as it relates to mechanical, electrical, and plumbing. Advanced ArchiCAD, AutoCAD &/or MicroStation techniques will be used extensively for preparing drawings.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 50.00

**BCT2841L BUILDING CONSTRUCTION FIELD EXPERIENCE**  (1)
This course is designed to provide students with field experiences, including shadowing and job site visits which help
the student understand the organizational structure of a variety of construction companies and how the companies function. Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 0.00

BOT2010 GENERAL BOTANY (3)
Course designed to treat entire plant kingdom with emphasis on structure, function, and genetics of flowering plants. Fundamental cell and tissue structure of both vascular and non-vascular plants are studied. Associated physiological and chemical effects as related to function are emphasized. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BOT2010
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

BOT2010L GENERAL BOTANY LABORATORY (1)
Laboratory experiments and field trips to accompany BOT2010. Dissection exercises included. One two hour period weekly. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BOT2010
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 25.00

BSC1005 GENERAL BIOLOGY (3)
Course designed to give students an understanding of principles of Biology, while focusing on the nature and activities of living organisms. Course primarily for non-science majors (see BSC1005L). Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: BSC1005
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

BSC1005L GENERAL BIOLOGY LABORATORY (1)
Two hours of laboratory weekly which may be taken concurrently with BSC1005. For students planning to transfer where laboratory is required for science credit. Dissection exercises included. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. One two hour period weekly. Special fee charged. Placement by Testing Department.
Pre or Corequisite: BSC1005
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

BSC1010 INTRODUCTION TO BIOLOGY I (3)
This course is the first of a two-semester sequence introducing science majors to biological principles including cell structure and function, cell reproduction, biochemistry and cell metabolism, classical and molecular genetics, and genetic engineering. Corequisite: BSC1010L
Pre or Corequisite: CHM1040
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

BSC1010L INTRODUCTION TO BIOLOGY I LAB (1)
This laboratory course is the first of a two-semester sequence introducing science majors to biological principles including microscope observation, study of anatomical models, and dissection. Dissection exercises included. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BSC1010L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 35.00

BSC1011 INTRODUCTION TO BIOLOGY II (3)
This course is the second of a two-semester sequence introducing science majors to biological principles including a study of the Five Kingdoms: Evolution and Population Dynamics, and Ecology. Corequisite: BSC1011L
Pre or Corequisite: CHM1040
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

BSC1011L INTRODUCTION TO BIOLOGY II LAB (1)
This laboratory course is the second of a two-semester sequence introducing science majors to biological principles including a study of the Five Kingdoms, Evolution and Population Dynamics, and Ecology. Laboratory exercises compliment lecture topics. Dissection exercises included. 3 hours laboratory per week. Special fee charged. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BSC1011L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 35.00

BSC1085 HUMAN ANATOMY AND PHYSIOLOGY I (3)
A survey of the structure, function, and chemistry of the human body considering the following topics: body organization, the cell, tissues, membranes, glands, the Integumentary System, the Skeletal System, the Muscular System, the Nervous System, and the special senses. 3 hrs. Lec. per week. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. CHM1032, CHM1040, or CHM1045 is very strongly recommended (see your program requirements). Placement by Testing Department or Pre or Corequisite: BSC1085
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

BSC1085L HUMAN ANATOMY AND PHYSIOLOGY I LAB (1)
Laboratory exercises coordinated with BSC1085 including microscope observation, experimentation, study of anatomical models, and dissection. Dissection exercises included. Meets Area 4C general education requirements for A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. 2 hrs. lab. per week. Special fee charged. CHM1032, CHM1040, or CHM1045 is strongly recommended (see your program requirements). Placement by Testing Department or Pre or Corequisite: BSC1085L
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 15.00

BSC1086 HUMAN ANATOMY AND PHYSIOLOGY II (3)
A continuation of the Anatomy and Physiology sequence, including the following topics: the Circulatory System, the Respiratory System, the Digestive System, the Urinary System, Fluid and Electrolytes and the Reproductive System. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. 3 hrs. lec. wk. CHM1032, CHM1040, or CHM1045 is very strongly recommended (see your program requirements.) Placement by Testing Department or Pre or Corequisite: BSC1086
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

BSC1086L HUMAN ANATOMY AND PHYSIOLOGY II LAB (1)
Laboratory experiments coordinated with BSC1086, including microscope observation, study of anatomical models and dissection. Dissection exercises included. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. CHM1032, CHM1040, or CHM1045 is very strongly recommended as a Prerequisite (see your program requirements). Special fee charged. Placement by Testing Department or Pre or Corequisite: BSC1086L
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 25.00
CCJ2191 HUMAN BEHAVIOR IN CRIMINAL JUSTICE (3)
Introduction to the historical and philosophical background of the agencies of the Criminal Justice System. An examination of the relationships between the police, courts and correctional systems.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CCJ2500 JUVENILE JUSTICE (3)
An analysis of the criminal justice system as it relates to juveniles. Major topics include: police practices (such as detention, searches and interrogation) when dealing with juveniles, court procedure in juvenile cases and different theories of juvenile rehabilitation. Instructor's approval or Prerequisite: CCJ1020
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CCJ2933 CORRECTIONS PRACTICUM (3)
This course offers practical experiences in corrections or related disciplines of criminal justice giving the student the opportunity to apply classroom knowledge. Prerequisite: CCJ1020 or permission of instructor.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CCJ2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

BUL2241 BUSINESS LAW I (3)
This course covers basic principles of law and their application to business problems. Topics include a discussion of legal rights and social forces; the legal relationships of government, business and society; law of contracts; personal property, bailments, sales of goods, torts and business crimes.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

BUL2242 BUSINESS LAW II (3)
This course provides a study of the legal principles covering negotiable instruments, creditors' rights and secured transactions; agency, employer-employee relations; franchises, insurance, bankruptcy, partnerships, corporations, and real property.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CEM0013 MAINTAINING RESIDENTIAL TURF (3)
Course trouble shooting and solving turf grass problems in residential and small commercial properties.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 125.00

CDA1302C A+ HARDWARE (3)
This course provides students with the hands-on experience and knowledge to properly install, configure, upgrade, troubleshoot, and repair microcomputers. This includes desktop and portable systems, printers, and basic networking. Students will also learn common safety and preventative maintenance procedures, as well as effective behaviors that contribute to customer satisfaction. The skills developed by students who complete this course will prepare them for the A+ Core Hardware Certification Exam. Prerequisite: CDA1403C
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 125.00

CDA1403C A+ OPERATING SYSTEMS (3)
This course provides students with an understanding of the Command Line, Windows 9X, and Windows 2000 for installing, configuring, upgrading, troubleshooting, and repairing microcomputer systems. The skills developed by students who complete this course will prepare them for the A+ Operating Systems certification exam. Students without a computer background are strongly advised to complete CGS1100 Introduction to Computer Applications before undertaking this course.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 125.00

CEN1300C MICROSOFT WINDOWS PROFESSIONAL (4)
This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows Professional on stand-alone and client computers that are part of a workgroup or domain. The skills developed by students completing this course will help prepare them for the Microsoft Windows Professional certification. Students who do not possess a networking background are strongly encouraged to complete CEN1509C (Network+) before attempting this course. Prerequisite: CDA1403C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CEN1301C IMPLEMENTING MICROSOFT WINDOWS SERVER (4)
This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows Server to create file, print, Web, and Terminal servers. It also provides
students with the Prerequisite knowledge and skills required for course CEN1315C, Implementing a Microsoft Windows Network Infrastructure. The skills developed by students completing this course will help prepare them for the Microsoft Server certification exam. 
Prerequisite: CDA1302C CDA1403C CEN1300C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1315C IMPLEMENTING WINDOWS INFRASTRUCTURE (4)
This course is designed for support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows Server products. It also provides students with the Prerequisite knowledge and skills required for course CEN1321C, Implementing Microsoft Windows Directory Services. The skills developed by students completing this course will help prepare them for the Microsoft Network Infrastructure certification exam.
Prerequisite: CDA1302C CDA1403C CEN1300C CEN1301C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1321C IMPLEMENTING MICROSOFT WINDOWS ACTIVE DIRECTORY (4)
This course is designed to provide with the knowledge and skills necessary to install, configure and administer Microsoft's Windows Active Directory services. The courses also focus on implementing Group Policy and performing the Group Policy-related tasks that are required to centrally manage users and computers. The skills developed by students completing this course will help prepare them for the Microsoft Active Directory certification exam.
Prerequisite: CDA1302C CDA1403C CEN1300C CEN1301C CEN1315C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1323C DESIGNING A SECURE MICROSOFT WINDOW NETWORK (4)
This course provides students with the knowledge and skills necessary to design a secure framework for small, medium, and enterprise network by using Microsoft's Windows technologies. The skills developed by students completing this course will help prepare them for the Microsoft Designing a Secure Windows Network certification exam.
Prerequisite: CEN1300C CEN1301C CEN1315C CEN1321C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1325C DESIGN MICROSOFT WINDOW SERVER ACTIVE DIRECTORY (4)
This course provides students with the knowledge and skills necessary to design a Microsoft Windows directory service and network infrastructure on an enterprise network. Strategies are presented to assist the student in identifying the information technology needs of an organization, and then designing an Active Directory structure and network infrastructure that meets those needs. The skills developed by students completing this course will help prepare them for the Microsoft Designing Directory Service and Network Infrastructure certification exam.
Prerequisite: CEN1300C CEN1301C CEN1315C CEN1321C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1327C PLAN MICROSOFT WINDOWS INFRASTRUCTURE (4)
This course provides students with the information and skills needed to plan and maintain a networking services infrastructure that supports the required network applications. Each unit provides a solution based on the needs of the organization. Some Microsoft Windows network solutions require a single technology, such as DHCP to provide Internet Protocol (IP) address configuration support. In other situations, several technology options exist, such as Open Shortest Path First (OSPF), Routing Information Protocol (RIP), and Internet Group Management Protocol (IGMP), to maintain an IP routing scheme. The skills developed by students completing this course will help prepare them for the Microsoft's Planning and Maintaining Network Infrastructure certification exam.
Prerequisite: CEN1300C CEN1301C CEN1315C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1503C NETWARE ADMINISTRATION (4)
Learn the basics of managing a NetWare network. This course teaches you how to use NetWare administrative tools to set up, manage and use basic network services, including file systems, network printing, security and e-mail. The skills developed by students completing this course will help prepare them for one or more Novell CNE Certification Exams.
Prerequisite: CDA1302C CDA1403C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1504C NETWARE ADVANCED ADMINISTRATION (4)
Learn advanced administration skills such as tuning the network and server for better performance and managing complex tree structures. This course teaches you how to oversee a complex NetWare networking environment, including Novell Direction Services (NDS) partitioning and replication, and time synchronization strategies. The skills developed by students completing this course will help prepare them for one or more Novell CNE Certification Exams.
Prerequisite: CEN1503C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00
CEN1041C HOME TECHNOLOGY INTEGRATOR+ (4)
HTI+ is a vendor-neutral, cross-industry credential providing recognition that a Home Technology Integrator has attained a standard of excellence in the integrated home networks industry. It is based on a set of standards designed to measure mastery of core competencies in the installation, integration and trouble-shooting of: Home Security, Audio/Video, Computer Networks, Electrical Wiring, HVAC (Heating/Air Conditioning Systems), Cable/ Satellite, Broadband, Telecommunications and Structured Wiring. This course helps prepare students to be HTI professionals.
Lec Hrs = 52  Lab Hrs = 12  Oth Hrs = 0  Fees = 150.00
CET1114C DIGITAL TECHNIQUES (5)
The study and application of digital logic circuits. Topics include binary, octal and hexadecimal number systems, Boolean algebra, Karnaugh mapping, logic gates, flip flops, counters, and registers, applications in combinational and sequential logic systems. Extensive laboratory practice.
Lec Hrs = 64  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00
CET1123C MICROPROCESSORS I (4)
Study of the organization and operation of a stored program digital computer with emphasis on CPU operation in response to assembly and machine language instructions. Methods of selecting and operating I/O devices under program control will also be studied. Course work includes sophisticated assembly language programming for the microprocessor. Prerequisite: instructor approval or
Prerequisite: CET1112C
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00
CET1317C TECHNICAL COMPUTER APPLICATIONS (3)
Technical computer applications, including the use of the Windows operating system, computer applications such as word processing, spreadsheets, presentation graphics, an introduction to CAD (Compu-Taided Design) and electronic simulation software is presented with emphasis on the solution...
of problems in the Engineering Technology fields. This course is
gear towards the Engineering Technology student.
Prerequisite: CET1050C MTH1325
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

CET1600C CISCO NETWORKING I (4)
This is the first in a series of four courses designed to provide
students with classroom experience in the current and
everging networking technology of Cisco systems. Instruction
includes, but is not limited to, network terminology and
protocols, network standards, network topologies, LANs,
WANs, the OSI model, IP addressing, cabling, cabling tools,
routing, and router programming. Particular emphasis is
given to decision-making and problem-solving techniques. The skills
developed by students completing this course will help prepare
them for the Cisco CCNA certification exam.
Prerequisite: CDA1020C CDA1403C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET1610C CISCO NETWORKING II (4)
This is the second in a series of four courses designed to
provide students with classroom experience in the current and
everging networking technology of Cisco systems. Instruction
includes, but is not limited to, network terminology and
protocols, network standards, Ethernet, Token Ring, Fiber
Distributed Data Interface, TCP/IP addressing protocol, routing,
dynamic-routing, and network administrator's role and function.
Particular emphasis is given to decision-making and problem-
solving techniques. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.
Prerequisite: CET1600C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET1615C CISCO NETWORKING III (4)
This is the third in a series of four courses designed to provide
students with classroom experience in the current and
everging networking technology of Cisco systems. Instruction
extends the student's knowledge and practical experience with
switches and Local Area Network (LAN) and Virtual Local Area
Network (VLAN) design, configuration, and maintenance. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.
Prerequisite: CET1610C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET1620C CISCO NETWORKING IV (4)
This is the fourth in a series of four courses designed to provide
students with classroom experience in the current and
everging networking technology of Cisco systems. Instruction
introduces and extends the student's knowledge and practical experience with Wide Area Networks (WANs), Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and Frame Relay design, configuration, and maintenance. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.
Prerequisite: CET1615C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET1630C NETWORK CABLING TECHNOLOGIES (4)
Learn about standards, codes, and emerging trends of LAN
cabling. Design and install a cabling system that enhances your
LAN topology, maximizes your network performance, and
eliminates cable downtime. Work with the latest equipment
to design, install, and troubleshoot copper and fiber optic network
systems.
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

CET1850C CISCO NETWORK ACADEMY:
FUNDAMENTALS OF WIRELESS LANS (4)
This Cisco Networking Academy course in wireless technology
focuses on the design, planning, implementation, operation and
troubleshooting of Wireless LANs. It offers a comprehensive
overview of technologies, security, and design best practices,
with particular emphasis on hands-on skills.
Prerequisite: CET1610C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET2131C MICROPROCESSORS II (4)
Analysis of 8/16 bit microprocessors and microcomputers with
emphasis on logic, timing and interfacing of the
microprocessor. The student will design circuits and programs
to interface memory and peripheral devices in a
microprocessor based system. Extensive Laboratory practice is
an integral part of this course. Students will design and develop
a microprocessor project board as part of this course. This will
require the student to purchase various electronic components
costing approximately $125.
Prerequisite: CET1114C CET1123C
Lec Hrs = 56 Lab Hrs = 24 Oth Hrs = 0 Fees = 0.00

CET2133C COMPUTER TECHNOLOGY I (4)
This course will cover the microprocessor technology related to
the Intel 8086 and family of microprocessors and microchips.
The student will learn the architecture and instruction set
and then use machine and assembly language programming to
design and implement interfacing from a microprocessor based
system to peripheral devices used in instrumentation and
engineering applications.
Prerequisite: CET1123C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET2489C NETWORKING TECHNOLOGY (2)
This course covers topics in networking technology including
OSI communications, networking and services, as well as
troubleshooting of networking devices and components.
Networking optimization is also included.
Lec Hrs = 32 Lab Hrs = 16 Oth Hrs = 0 Fees = 24.00

CET2491C NETWORK ADMINISTRATION (3)
This course is designed to teach advanced network
administration. Topics will include the design and
implementation of NDS, advanced network installation and
migration, advanced network file systems and security, and
advanced network printing. Basic knowledge of microcomputer
networking is required.
Prerequisite: CET2490C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 24.00

CET2494C ADVANCED NETWORKING (3)
This course is for support professionals who are new to
networking services and will be responsible for installing,
configuring, managing, and supporting a network infrastructure
that uses various networking services. It also provides students
with the Prerequisite knowledge and skills required for
Implementing and Administering Directory Services such as
Microsoft Active Directory.
Prerequisite: CET2489C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 24.00

CET2625C CISCO NETWORKING V (6)
This fifth course in the Cisco Academy curriculum offers
lectures, hands-on labs, case studies, and written exercises to
give you all the advanced skills needed to configure Cisco
routers. Learn the complex concepts and commands
necessary to configure Cisco routers for scalable operation in
large and/or growing internetworks. Prerequisite: Proof of
CCNA certification.
Prerequisite: CET1620C
Lec Hrs = 90 Lab Hrs = 16 Oth Hrs = 0 Fees = 150.00

CET2626C CISCO NETWORKING VI (5)
This powerful sixth course in the Cisco Academy sequence
covers the fundamental and practical knowledge needed to
implement Cisco Remote Access Network environments. In the
hands-on labs, you will configure ISDN, BRI, and PRI traffic
test and verify connectivity with common network tools.
Prerequisite: CET2625C
Lec Hrs = 64 Lab Hrs = 16 Oth Hrs = 0 Fees = 150.00
CET2627C CISCO NETWORKING VII (5)
The seventh course in the Cisco Academy sequence teaches you how to build campus networks using multilayer switching technologies over high speed Ethernet. This course addresses the integration of routing and switching technologies to create an efficient campus network. You will identify the Cisco products and computer applications that service the need for both that enable connectivity and traffic transport over Fast Ethernet, to interwork with devices at each layer of the network to all users to obtain membership to multicast groups in a working multilayer switched network.
Prerequisite: CET2625C
Lec Hrs = 64 Lab Hrs = 16 Oth Hrs = 0 Fees = 150.00

CET2628C CISCO NETWORKING VIII (6)
The final course in the CCNP program teaches you to quickly troubleshoot problems with Cisco router and Catalyst switch internetworks. Remedies communication problems in TCP/IP, IPX/SPX, AppleTalk, and Wide Area Networks. This course is equipment-intensive class in the most comprehensive troubleshooting course available.
Prerequisite: CET2625C CET2626C CET2627C
Lec Hrs = 80 Lab Hrs = 16 Oth Hrs = 0 Fees = 150.00

CET2660C CISCO FUNDAMENTALS OF NETWORK SECURITY (3)
Introductory Network Security course focusing on the overall security processes with particular emphasis on hands-on skills in the following areas: Security policy design and management; Security technologies, products and solutions; Secure router design, installation, configuration, and maintenance; AAA implementation using routers; Intrusion Detection (IDS) implementation using routers; VPN implementation using routers.
Prerequisite: CET1620C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CET2667C CISCO FUNDAMENTALS OF NETWORK SECURITY (3)
Introductory Network Security course focusing on the overall security processes with particular emphasis on hands-on skills in the following areas: Security policy design and management; Security technologies, products and solutions; Firewall and design, installation, configuration, and maintenance; AAA implementation using PIX Security Appliances; Intrusion Detection (IDS) implementation using PIX Security Appliances; VPN implementation using PIX Security Appliances.
Prerequisite: CET2660C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CGS1100 INTRODUCTION TO COMPUTER APPLICATION (3)
This course is an introduction to computers and their applications. Students will learn to identify the basic components and devices that comprise a computer system; to use the Internet as a source of information and a means of communication; and to use application software packages (including word processing, spreadsheet, database management, and presentation graphics programs).
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 50.00

CGS1510 ELECTRONIC SPREADSHEET (3)
This course provides hands-on applications with a spreadsheet software package. Through Lecture and Lab practices, students will develop skills that create, manipulate and utilize spreadsheets.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 24.00

CGS1540C DATABASE MANAGEMENT (3)
This course is an introduction to database management. Using appropriate database software, students will learn to maintain and manipulate data in an organized, accessible and accurate manner. Emphasis is placed on the use of microcomputer database management software for common business applications.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 24.00

CGS1555C INTRODUCTION TO THE INTERNET (3)
This course will provide students with an introduction to the Internet including the World-Wide Web, a worldwide network of information that resides on the Internet. The Web contains a wealth of information including text, graphics, audio, and video and a wide variety of services such as online libraries, catalogs, shopping, games and various other important resources.
Prerequisite: CGS1000 or CGS1570 or Instructor's approval.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 24.00

CGS1557C INTERNET SITE DESIGN (3)
This course is intended to provide technical, programming and administrative background and experience for a career with the World-Wide Web. Students should have a working familiarity with the Internet and the World-Wide Web, such as could be gained in CGS1555C. Introduction to the Internet.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 24.00

CGS1577C PRESENTATION SYSTEMS (3)
Design and develop a multimedia presentation project with linear design. Students will learn the differences between a presentation and an authoring program. The student will use the Internet and other on-line resources to research sources of multimedia and learn CD-ROM mastering as well as other platforms for delivery of multimedia. Using audience analysis, defining content outline with storyboards and creating a script, students will create a comprehensive presentation project which can be used in lecture format or as an endless loop to repeat the presentation. Projects will include text, graphics, sound, video, and animation by creating the components in the program, or importing, or scanning. Using graphic software, graphics and photos can be enhanced and manipulated for importing into the presentation program.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

CGS1851C CASCADING STYLE SHEETS (3)
This course will help students to understand and apply Cascading Style Sheets to separate the content from the style of web pages. Topics covered will include text styling, working with images, navigation, replacing tables with CSS, form interfaces, positioning, layout, and future techniques.
Prerequisite: CTS1823C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 100.00

CGS1852C SERVER-SIDE SCRIPTING (3)
This course will help students to understand and utilize Server-Side Scripting technology. Students will work with Server-Side...
Scripting to create Internet-based applications. Students will learn to connect to databases, work with files, extract data from HTML forms, and how to build secure applications.

Prerequisite: COP1334C. CTS1860C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 100.00

CGS2263 LOCAL AREA NETWORKING (3)
This course is designed as a comprehensive study of microcomputer networking. Topics include the selection, installation, maintenance, and management of network software and hardware.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CGS2554C E-COMMERCE WEB DEVELOPMENT (3)
This course teaches development of E-Commerce web sites for back-end server applications. It stresses development of database information and manipulation for web delivery. Students should have complete knowledge of HTML and database management, before taking this course. Students will conceptualize and develop E-Commerce web sites.
Prerequisite: CGS1540C CGS1557C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

CGS2810C HELP DESK (4)
This course is designed to teach students the skills they need to effectively provide technical support to computer users. The course explores topics such as customer service, help desk operations, help desk management, needs assessment, training, and facilities management. Students will learn troubleshooting techniques, installation procedures, end user documentation skills, and product evaluation strategies.
Prerequisite: CDA1302C CDA1403C CEN1509C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 50.00

CGS2840C CIW: E-COMMERCE STRATEGIES AND PRACTICES II (4)
In this course, students will implement a genuine transaction-enabled business-to-consumer Web site. They get hands-on experience implementing the technology to engage cardholders, merchants, issuers, payment gateways and other parties in electronic transactions. This course, in combination with CGS2843, prepares students for the CIW E-Commerce Strategies and practices certification exam.
Prerequisite: CGS2843
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 100.00

CGS2843 CIW: E-COMMERCE STRATEGIES AND PRACTICES (3)
This course teaches students how to conduct business online and explores the technological issues associated with constructing an electronic-commerce Web site. Students will examine strategies and products available for building electronic-commerce sites, examine how sites are managed, and explore how they can complement an existing business infrastructure. This course, in combination with CGS2840C, prepares students for the CIW E-Commerce Strategies and Practices certification exam.
Prerequisite: CTS1860C
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CGS2874C MULTIMEDIA AUTHORING II (3)
Continuation of multimedia CGS2871C with emphasis on functions and variables and development of complex interactive titles for cross platform delivery. Custom variables will be created. In-depth projects will be developed using video, audio, text, and graphics while controlling the program direction, testing, and debugging. Hypertext and development of on-line help modules and documentation will be included in the projects.
Prerequisite: CGS2871C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

CGS2877C WEB ANIMATION (3)
Web developers use Flash (or another animation tool) to create beautiful, resizable, and extremely small and compact navigation interfaces, technical illustrations, long-form animations, and dazzling effects for web sites and other Web-enabled devices (such as WebTV). Students will create graphics and animations using drawing tools or imported vector artwork; animate that artwork; and make interactive movies.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

CHD1320 CURRICULUM PLANNING FOR EARLY CHILD (3)
Content and methods of planning developmentally appropriate activities to enhance children's cognitive, social, emotional, physical and creative development. Lesson plan formats and daily scheduling will be covered.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHD1331 CREATIVITY FOR YOUNG CHILDREN (3)
This course offers an understanding of theory in children's art, music, and movement activities and their practical classroom application through process oriented and teacher activities.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHD1334 CHILDREN'S LITERATURE AND LANGUAGE ARTS (3)
This historical perspective will guide a study of qualitative books, such as fairy tales, folk tales, poems, and nursery rhymes. The role of the teacher in the child's acquisition of communications skills will be investigated.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHD1338 MATH & SCIENCE FOR THE YOUNG CHILD (3)
Designed to foster understanding of the development of mathematical thinking and the mental ability of the preschool child. The science portion will enable the pupil to become familiar with the concept and techniques of "sciencing."
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHD1940 PRACTICUM 1: OBSERVATION AND EVALUATION (3)
Offers an opportunity to observe children in child care settings, gain understanding of their behavior and evaluate their environments.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 12.00

CHD2441 PRACTICUM II (3)
Facilitates practical experiences in techniques of early childhood education. Requires qualified supervision in a school or center for preschool education.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

CHD2800 ADMIN AND MGMT IN E C EDUCATION (3)
This course will emphasize the design and operation of a childcare facility. Classroom exposure will emphasize and assess site selection, building design and supervisory
functions, equipment selection, activity planning, scheduling, financing, budgeting, record-keeping, and marketing.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1025 INTRODUCTION TO CHEMISTRY (3)
Selected topics from general chemistry and organic chemistry. Topics covered include chemical measurements, stoichiometry, atomic structure, periodic table, chemical bonding, inorganic compound nomenclature and formula writing, gases, liquids, solids, solutions, acid-base chemistry, oxidation-reduction chemistry, energy, hydrocarbon nomenclature, functional groups of organic chemistry, and nuclear chemistry. Meets Area 4B general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Prequisite: MAT0024
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1025L INTRODUCTION TO CHEMISTRY LAB (1)
Laboratory experiments to accompany CHM1025. Special fee charged. Meets Area 4C general education requirements for the A.A. degree. Placement by Testing Department or
Prequisite: MAT0024 REA0006C
Pre or Corequisite: CHM1025
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00

CHM1032 CHEMISTRY FOR HEALTH SCIENCES (3)
Selected topics from general chemistry, organic chemistry and biochemistry. This course is designed specifically for Nursing and other Allied Health Technology students. Placement by Testing Department or
Prequisite: MAT0024
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1032L CHEMISTRY FOR HEALTH SCIENCES LAB (1)
Laboratory exercises to accompany CHM1032; including Inorganic, Organic and Biochemical experiments. Placement by Testing Department or
Prequisite: MAT0024
Pre or Corequisite: CHM1032
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00

CHM1040 GENERAL CHEMISTRY A (EXPANDED SEQUENCE) (3)
First course of a three semester expanded sequence CHM1040, CHM1041, CHM1046E. This course includes two laboratories: CHM1045L to be taken concurrently with CHM1045; and CHM1046L to be taken with CHM1046E. This course introduces students to chemical measurement, stoichiometry, atomic structure, the periodic table, chemical bonding, inorganic formula writing and the naming of inorganic compounds and changes in energy. 3 hrs. lec./wk. Meets Area 4B general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: MAT1033
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1041 GENERAL CHEMISTRY B (EXPANDED SEQUENCE) (3)
Second course of a three semester sequence, CHM1040, CHM1041, 1046E. This sequence includes two labs: CHM1045L to be taken concurrently with CHM1041 and CHM1046L to be taken with CHM1046E. This course further develops modern chemical concepts, including, gases, liquids, solids, solution, acid base chemistry, ionic reactions, oxidation reduction, thermodynamics and descriptive chemistry of non-metals. 3 hrs lec./wk. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: CHM1040
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1045 GENERAL CHEMISTRY I (3)
First course in a two term sequence, CHM1045 and CHM1046. This sequence includes two labs CHM1045L and CHM1046L to be taken concurrently with CHM1045; and CHM1046L to be taken with CHM1046E. Topics covered include chemical measurements, stoichiometry, atomic structure, periodic table, chemical bonding, inorganic compounds nomenclature and formula writing, gases, liquids, solids, solutions, acid base chemistry and ionic reactions and descriptive chemistry of non-metals. To enroll, students must have had some Chemistry at the high school or college level. Meets Area 4B general education requirements for the A.A. degree. Meets area 4 or 5 general education general education requirements for the A.S. degree. Placement by Testing Department or
Prequisite: MAC1105
Pre or Corequisite: CHM1045L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1045L GENERAL CHEMISTRY I LAB (1)
Laboratory experiments to accompany CHM1041 or CHM1045. Special fee charged. Meets Area 4C general education requirements for the A.A. degree. Placement by Testing Department or
Pre or Corequisite: CHM1045
Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 15.00

CHM1046 GENERAL CHEMISTRY II (3)
Final course in the two semester sequence, CHM1045, and CHM1046. This sequence includes two labs: CHM1045L to be taken concurrently with CHM1045 and CHM1046L to be taken with CHM1046E. Topics covered include oxidation reduction, chemical and ionic equilibrium, kinetics, electrochemistry, coordination chemistry, thermodynamics, nuclear chemistry, an introduction to organic chemistry and highlights of descriptive chemistry of metals. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Prequisite: CHM1045 CHM1045L
Pre or Corequisite: CHM1046
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1046E GENERAL CHEMISTRY C (EXPANDED SEQUENCE) (3)
Final course of the three semester expanded sequence, CHM1040, CHM1041, CHM1046E. This course includes two laboratories: CHM1045L to be taken concurrently with CHM1041; and CHM1046L to be taken with CHM1046E. This course further develops modern chemical concepts, including, gases, liquids, solids, solution, acid base chemistry, ionic reactions, oxidation reduction, thermodynamics and descriptive chemistry of non-metals, nuclear chemistry and an introduction to organic chemistry. 3 hrs. lec./wk. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Prequisite: CHM1040 CHM1041 CHM1046E
Pre or Corequisite: CHM1046L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

CHM1046L GENERAL CHEMISTRY II LAB (1)
Laboratory experiments to accompany CHM1046 or CHM1046E. Prequisite: CHM1041 or CHM1046 and CHM1045L with a grade of "C" or higher. Corequisite: CHM1046 or CHM1046E. Special fee charged. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Prequisite: CHM1045 CHM1045L
Pre or Corequisite: CHM1046
Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 15.00
CHM1093 PRINCIPLES OF CHEMISTRY FOR TEACHER (3)
This course is designed for middle and high school science teachers. This course covers the basic principles of chemistry with applications of these principles to every day phenomena. Lectures will include hands on activities and demonstrations. This course will not satisfy the general education requirements for the A.A. degree. Placement by Testing Department.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHM1094 PRINCIPLES OF CHEMISTRY FOR TEACHER (3)
This course is designed for middle and high school science teachers and continues the discussion of the basic principles of chemistry and the practical application of those principles that were the focus of CHM1093. This course will not satisfy the general education requirements for the A.A. degree. Placement by Testing Department or
Prerequisite: CHM1093
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHM2210 ORGANIC CHEMISTRY I (3)
First part of a two course sequence presenting the structure, preparation, reaction, and nomenclature of various classes of hydrocarbons and their derivatives. Reaction electronic mechanisms are interpreted and unified in the light of modern theory. Three hours weekly. Placement by Testing Department or
Prerequisite: CHM1046 CHM1046L
Pre or Corequisite: CHM2210L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHM2210L ORGANIC CHEMISTRY I LABORATORY (1)
Organic laboratory experiments and preparations to accompany CHM2210. Special fee charged. Placement by Testing Department or
Prerequisite: CHM1046 CHM1046L
Pre or Corequisite: CHM2210
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 35.00

CHM2211 ORGANIC CHEMISTRY II (3)
Second of the two-part organic chemistry course. A continuation of the study of the remaining classes of organic compounds including use of spectroscopic methods and an introduction to bio-organic molecules. Three hours weekly. Placement by Testing Department or
Pre or Corequisite: CHM2210 CHM2210L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CHM2211L ORGANIC CHEMISTRY II LAB (1)
Appropriate experiments and preparation to compliment CHM2211. Special fee charged. Placement by Testing Department or
Prerequisite: CHM2210 CHM2210L
Pre or Corequisite: CHM2211
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 35.00

CIS2321 SYSTEMS DEVELOPMENT AND DESIGN (3)
This course surveys systems and procedures of internal control. Students learn through lectures and practical case studies how to apply equipment and programming techniques to actual business data processing applications.
Prerequisite: COP1334C
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CIS2342 DESIGNING DATA SERVICES AND DATA MODELS (3)
This course teaches students to analyze business requirements to determine data storage and data access requirements. Students will learn to build data models and design data services.
Prerequisite: COP1334C
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CIS2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Student will be assigned specific course prefixes relative to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJC2000 INTRODUCTION TO CORRECTIONS (3)
Introduction to the historical events and social issues that have shaped the corrections (prison/jail)system in the U.S., and an examination of contemporary corrections in terms of structure, clients, management, staff, programs and prisoners' rights.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJC2162 PROBATION AND PAROLE PROCEDURES (3)
Examines this important community-based treatment aspect of the corrections system, reviews philosophy and development, the pre-sentence investigation, and supervision methods. Juvenile practices are also included. 3 hrs. lec.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD0741 EMERGENCY PREPAREDNESS CORRECTIONS (1)
This course defines operational procedures when dealing with emergency situations. Course will include riot and disturbance control, handling unusual occurrences, hostage procedures and firefighting principals.
Lec Hrs = 26 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD0752 CORRECTIONAL OPERATION (2)
This course defines the daily operational procedures of the correctional facility. Course includes inmate supervision, transportation, booking procedures, patrol concepts and disciplinary procedures.
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD0770 CRIMINAL JUSTICE LEGAL 1 CORRECTION (1)
This course will provide the basics of ethical behavior, the purpose of laws, components of the U.S. Constitution, legal terms related to various tasks performed on the job. The student will be introduced to the historical and philosophical background of the Criminal Justice System.
Lec Hrs = 46 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD0771 CRIMINAL JUSTICE LEGAL 2 CORRECTION (0)
This course is designed to provide the basic provisions of the U.S. Constitution, comprehension of Florida Statute terms, concepts of evidence, arrest laws, civil law, elements of criminal mischief and various offenses.
Lec Hrs = 22 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD0773 INTERPERSONAL SKILLS 1 CORRECTIONS (2)
This course presents definition of human behavior, characteristics of juvenile offenders and human diversity interaction. Dealing with the mentally retarded, physically handicapped and substance abusers are included in theories and application techniques.
Lec Hrs = 62 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD0781 CROSS OVER LAW ENFORCEMENT (1)
With all co-requisites, this course enables a certified correctional officer to sit for the state law enforcement certification examination. This course meets all requirements of the Florida Criminal Justice Standards and Training Commission.
Corequisites: CJD0723, CJD0730, CJD0731, CJD0723, CJD0734
Pre or Corequisite: CJD0723 CJD0730 CJD0731 CJD0723 CJD0734
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
in general and special needs citizens, such as the elderly.

A study of skills needed by police officers to deal with citizens

interrogation techniques. Acceptance into the A.S. Criminal

enforcement officer, such as taking statements, report writing

This course is designed to teach the student those

of the causes of stress with methods of coping.

A course in practical law for correctional personnel. Study

principles and issues of interviews and interrogations for

specialty and needs citizens, such as the elderly,

juveniles, mentally handicapped, and those in crisis. Special

emphasizes stress recognition and reduction

among police officers. Acceptance into the A.S. Criminal

Justice Academy-track degree program is a

Prerequisite for this course.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJD2250 INTERVIEWS AND INTERROGATIONS

This course is designed to cover the techniques, methods,

and legal systems. This course will include case and group studies

of selected countries.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJE2170 COMPARATIVE WORLD POLICE AGENCIES

A survey of contemporary foreign law enforcement and

criminal justice systems. Includes the operational and

philosophical differences emerging from various cultural and

legal systems. This course will include case and group studies

of selected countries.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJE2400 POLICE COMMUNITY RELATIONS

A consideration of the significance of establishing good working

relationships between the police and the public, including the

complex factors that lead to successful police community

relations.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0006 INTRODUCTION AND LAW

This course is part of the criminal justice standards and training

commission CMS Law Enforcement Basic Recruit Certification

Program. This course is designed to introduce the student to

the academy, graduation requirements, and recruit expectations
during their academy attendance, to enable students to understand
the components of the criminal justice system and the proper use of the chain of command in an

organization, to enable the student to learn constitutional law and Florida statutes, and to enable the students to understand

the police code of ethics. This is a limited access course. It

requires admission to the Criminal Justice Training Academy Law Enforcement Program.

Lec Hrs = 67 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0010 HUMAN ISSUES

In this foundation course, the student will explore the human

issues encountered by the law enforcement officer. The issues are
categorized into human diversity, mental illness and the

physically challenged.

Lec Hrs = 50 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0015 COMMUNICATIONS

This presents topics of street gangs, the elderly, interviewing,

officer survival and crisis intervention. Emphasis is on

communications: sources, procedures and documentation.

Lec Hrs = 77 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0020 VEHICLE OPERATIONS

This course presents the dynamics of emergency vehicle

operations and develops skills in operating a motor vehicle in

the law enforcement environment. A demonstration of

proficiency is required.

Lec Hrs = 24 Lab Hrs = 24 Oth Hrs = 0 Fees = 62.00

CJK0031 FIRST AID FOR CRIMINAL JUSTICE OFFICE

This course provides life-saving skills development in

emergency medical situations appropriate for the law

enforcement officer, including: CPR and communicable
This course explores the law enforcement officer's various activities while on patrol; the process of arrest, responding to diseases.
Lec Hrs = 24 Lab Hrs = 16 Oth Hrs = 0 Fees = 33.00

CJK0040 FIREARMS (2) This course develops proficiency with the semi-auto pistol used by a law enforcement officer. Qualification is required at various lighting levels.
Lec Hrs = 4 Lab Hrs = 76 Oth Hrs = 0 Fees = 392.00

CJK0050 DEFENSIVE TACTICS (2) This course provides skills development for the officer, appropriate for the threat level, within Florida law. Demonstration of proficiency is required.
Lec Hrs = 4 Lab Hrs = 76 Oth Hrs = 0 Fees = 53.00

CJK0060 PATROL (1) This course explores the law enforcement officer's various activities while on patrol; the process of arrest, responding to alarms and documentation of each activity.
Lec Hrs = 57 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0070 INVESTIGATIONS (1) This course presents the general process and procedure for conducting and investigating: responding to the scene, preliminary investigation, processing the crime scene and follow-up investigations.
Lec Hrs = 53 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0075 INVESTIGATING OFFENSES (1) This course presents the investigative process and requirements for specific types of offenses. Included are the investigation of Domestic Violence, Child Abuse, Abuse of the Elderly, Missing/Endangered Persons, Death Cases, Fugitives and Emotionally Disturbed persons.
Lec Hrs = 40 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0080 TRAFFIC STOPS (2) This course presents the general knowledge and understanding of the law enforcement officer: Unknown Risk, High Risk, D.U.I. and Unattended vehicles.
Lec Hrs = 62 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0085 TRAFFIC CRASH INVESTIGATIONS (1) This course develops the necessary knowledge and skills for an officer to investigate a Florida traffic crash.
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0090 TACTICAL APPLICATIONS (1) This course explores the knowledge and procedures necessary for an officer engaging in various activities, to include: court process, incident command system, bombs and explosives, and crowd control.
Lec Hrs = 54 Lab Hrs = 0 Oth Hrs = 0 Fees = 14.38

CJK0095 CRIMINAL JUSTICE SPECIAL TOPICS (0) Criminal Justice Special Topics is a course designed to introduce the student to physical conditioning, aerobic capacity, and wellness conditioning and training. It will help the student to better understand the need for a police officer to maintain physical conditioning and how an officer needs to possess those basic skills to perform the physical tasks required of criminal justice officers.
Lec Hrs = 2 Lab Hrs = 18 Oth Hrs = 0 Fees = 14.00

CJK0211 CROSS-OVER CORRECTIONS TO CMS LAW ENFORCEMENT (3) This course is designed to provide transitioning officers a variety of introductory training topics required for the new discipline (and not previously completed by the officer). In addition, this course is mandated by the Florida Criminal Justice Standards and Training Commission for inclusion in the Crossover from Correctional Officer to Law Enforcement officer training program, effective May 11, 2005. This is a limited access course. It requires active certification and employment as a State of Florida correctional officer.
Lec Hrs = 94 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0212 CROSS-OVER CORRECTIONS TO LAW ENFORCEMENT (0) This course is designed to provide transitioning officers the firearms training (night-firing) required for the new discipline not previously completed by the officer. Qualification with the weapon is required. In addition, this course is mandated by the Florida Criminal Justice Standards and Training Commission for inclusion in the Crossover from Correctional Officer to Law Enforcement Officer training program effective May 11, 2005. This is a limited access course. It requires active certification and employment as a State of Florida correctional officer.
Lec Hrs = 8 Lab Hrs = 0 Oth Hrs = 0 Fees = 66.00

CJK0213 CROSS-OVER CORRECTIONS TO LAW ENFORCEMENT (1) This course is designed to provide transitioning officers the tactical applications training required for the new discipline not previously completed by the officer. This course explores the knowledge and procedures necessary for an officer engaging in various activities, to include: court process, incident command system, bombs and explosives, and crowd control. In addition, this course is mandated by the Florida Criminal Justice Standards and Training Commission for inclusion in the Crossover from Correctional Officer to Law Enforcement Officer training program, effective May 11, 2005. This is a limited access course. It requires active certification and employment as a State of Florida correctional officer.
Lec Hrs = 40 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJK0255 CMS CORRECTIONS PROBATION FIREARMS (0) This course introduces firearms, presents the nomenclature and safety rules, and familiarizes the student with good shooting habits.
Lec Hrs = 2 Lab Hrs = 14 Oth Hrs = 0 Fees = 24.00

CJK0441C POLICE SERVICE AIDE (3) This course (with specified Corequisites) is designed to provide students the minimum skills necessary to perform the duties of a Police Service Aide (PSA) and is approved by the Criminal Justice Standards and Training Commission as prescribed by Florida State Statute 316.640. Corequisite: CJK0442 CJK0451
Lec Hrs = 94 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

CJK0442 TRAFFIC ACCIDENT/CRASH INVESTIGATION (2) This course is designed to provide students the minimum skills necessary to perform the duties of a Parking Enforcement Specialist (PES) and is approved by the Criminal Justice Standards and Training Commission as prescribed by Florida State Statute 316.640.
Lec Hrs = 68 Lab Hrs = 12 Oth Hrs = 0 Fees = 5.15

CJK0451 PARKING ENFORCEMENT SPECIALIST (0) This course is designed to provide students the minimum skills necessary to perform the duties of a Parking Enforcement Specialist (PES) and is approved by the Criminal Justice Standards and Training Commission as prescribed by Florida State Statute 316.640.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.15

CJL1062 CONSTITUTIONAL LAW (3) An examination of the U.S. Constitution, its amendments and its impact on present day criminal justice practitioners.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CJL1100 CRIMINAL LAW (3) Course will be concerned with the sources and elements of criminal law. Emphasis will be placed on criminal law as related to law enforcement officers with particular attention given to the
### CJT2251 TEST QUSTN CONSTR & SEMANTICS/PERSONALITY (3)
- The construction of test questions appropriate to the personnel aspect of the polygraph is emphasized. Course offered through Deception Control, Inc., Ft. Lauderdale.
- **Lec Hrs = 48**
- **Lab Hrs = 0**
- **Oth Hrs = 0**
- **Fees = 0.00**

### CJT2252 TEST QUSTN CONSTR & SEMANTICS/CRIMINALISTICS (3)
- The construction of test questions appropriate to the criminal case aspect of the polygraph is emphasized. Course offered through Deception Control, Inc., Ft. Lauderdale.
- **Lec Hrs = 48**
- **Lab Hrs = 0**
- **Oth Hrs = 0**
- **Fees = 0.00**

### CJT2253 CHART ANALYSIS, VALIDITY AND RELIABILITY (4)
- Validity and reliability of the polygraph is examined, along with an in-depth consideration of chart analysis. Course offered through Deception Control, Inc., Ft. Lauderdale.
- **Lec Hrs = 64**
- **Lab Hrs = 0**
- **Oth Hrs = 0**
- **Fees = 0.00**

### CJT2254 POLYGRAPH OPERATIONS PRACTICUM (3)
- Types of polygraph techniques and examinations are considered with emphasis on conducting examinations in role playing situations in the laboratory. Course offered through Deception Control, Inc., Ft. Lauderdale.
- **Lec Hrs = 48**
- **Lab Hrs = 0**
- **Oth Hrs = 0**
- **Fees = 0.00**

### CJT2362 FIRST RESPONDER (3)
- This course is designed to teach the student proper first responder techniques used by law enforcement officers in emergency medical situations and also to make the student aware of important health issues, such as communicable diseases, that may impact an officer’s duties. Acceptance into the A.S. Criminal Justice Academy-track degree program is a Prerequisite for this course.
- **Lec Hrs = 48**
- **Lab Hrs = 0**
- **Oth Hrs = 0**
- **Fees = 0.00**
programming languages.
Prerequisite: MAT0024
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP1120 COBOL I
The COBOL programming language is taught in a structured format. Through lectures and laboratory practices, students develop programming ability in the COBOL language. Emphasis is placed on sequential file processing and the creation of different reports. Creation of disk files is also covered. Instructor's approval or
Prerequisite: CGS1000
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 24.00

COP1170 PROGRAMMING IN BASIC
This course provides a study of programming utilizing the BASIC language. Emphasis is placed on the development of computer problem-solving skills and structured programming techniques in business, engineering, mathematics, science, and other related fields. Lectures and discussions are supplemented by assigned laboratory work in which microcomputers or mainframes are utilized.
Prerequisite: MAT0024
Pre or Corequisite: CGS1000
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 24.00

COP1334C INTRODUCTION TO C++
This course provides an introduction to computer program design and development using the C++ language. A structured, multi-phase, program development process featuring a series of steps involving problem definition, top-down design, and formal program specification is stressed. The course is intended to provide the novice programming student with the techniques needed to develop well-documented, structured computer programs. Students who do not possess computer programming experience are strongly encouraged to complete COP1000C (Introduction to Computer Programming) before attempting this course.
Prerequisite: MAT1033
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP1337C INTERMEDIATE C++ PROGRAMMING
This course continues the study of structured programming and the C++ language begun in COP1334C. Topics will include classes, polymorphism, inheritance, streams, templates, exception handling, dynamic memory allocation, and memory management. An introduction to data abstraction and data structures is also included.
Prerequisite: COP1334C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP1341 UNIX
Through the use of shell scripts, text processing, electronic mail, utilities and editors, students study the UNIX operating system to fulfill user needs in the business/scientific programming environments.
Prerequisite: COP1334C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 24.00

COP2171C VISUAL BASIC PROGRAMMING
This course teaches how to create Visual Basic based programs. Students write programs that access databases, use OLE to integrate applications, and act as an OLE Server and as an Add-in. This class assumes a working knowledge of Basic Programming (COP1170).
Prerequisite: COP1334C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 24.00

COP2227C SOLUTION ARCHITECTURES
This course provides students with the knowledge and skills necessary to analyze business requirements in a given scenario and then define technical solution architectures that will optimize business results by using Microsoft development tools.
Prerequisite: CGS1100
Pre or Corequisite: CIS2321
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP2331C OBJECT-ORIENTED DESIGN AND PROGRAMMING
This course focuses on objects as the basis for system development. Students will learn to implement object-oriented analysis and design techniques to document system requirements and design object-oriented solutions. CC++ will then be used to implement those solutions.
Prerequisite: COP1337C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 50.00

COP2700C DATABASE PROGRAMMING USING SQL
This course provides the student with a solid foundation in Relational Database Management Systems and RDBMS technology. It emphasizes an end-to-end solution, beginning with requirements and progressing through conceptual design, logical database design, physical database design, and implementation, using a RDBMS and the SQL language. It involves extensive database manipulation and querying using SQL. It also stresses transaction management concepts, data integrity constraints, and performance issues.
Prerequisite: CGS1540C COP2171C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP2701C ACCESS VBA PROGRAMMING
This course provides students with the comprehensive knowledge and skills necessary to implement application programming concepts and procedures, and to apply these skills to design, develop, and implement solutions based on Access for Windows.
Prerequisite: CGS1540C COP2171C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP2706C BUSINESS DEVELOPMENT USING VISUAL BASICS
This course will teach visual basic programmers, who currently build desktop applications and access corporate databases, the basics of how to build three tiers client/server solutions.
Prerequisite: COP2821C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP2707C CLIENT SERVER DEVELOPMENT USING DELPHI
This course covers the concepts of a database engine that allows the user to create and manipulate tables for the purpose of client and server relationships. Programming and data controls are utilized.
Prerequisite: CGS1540C COP1334C COP2171C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP2717C DATA WAREHOUSING
In this course students will study the issues involved in planning, designing, building, populating, and maintaining a successful Data Warehouse. Students learn the reason why data warehousing is a compelling decision-support solution to today's business climate. Students also examine all phases and tasks of the Data Warehouse design process, including business modeling, entity relationship diagramming, dimensional modeling, physical modeling, and Warehouse metadata management.
Prerequisite: COP2740C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 60.00

COP2718C DATA MINING
This course will provide students with an understanding of the concepts of Data-Mining. Students will also learn how to apply specific Data-Mining techniques. Statistical methods of data analysis will be covered as well as industry applications of data-mining tools. Topics include decision tables, decision trees, classification rules, association rules, clustering, statistical modeling, and linear models. Case studies using large data sets taken from real-life applications will also be included. Additional topics may include: problems encountered
COP2740C INTRODUCTION TO ORACLE: SQL AND PL/SQL
This course offers students an extensive introduction to database server technology. This class covers the concepts of relational databases and the powerful SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. In addition, students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and management applications. Demonstrations and hands-on practice reinforce the fundamental concepts. This class is designed to prepare students to successfully complete the Oracle Application Developer and Database Administrator certification exams.
Prerequisite: COP1334C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

COP2741C ORACLE DBA: DATABASE ADMINISTRATION
This course is designed to give the Oracle Database Administrator (DBA) a firm foundation in basic administrative tasks. Through instructor-led learning, structured hands-on practices, and challenge-level exercise labs, the DBA will gain the necessary knowledge and skills to set up, maintain, and troubleshoot an Oracle database. This course is designed to prepare students to successfully complete the Oracle Database Administrator certification exams.
Prerequisite: COP1341 COP2740C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

COP2742C ORACLE DBA: DATABASE ADMINISTRATION
In this course, students will develop skills for basic network administration, and learn several methods to backup and to recover an Oracle database. Hands-on exercises will give students experience in a realistic technical environment. The skills developed in this class will help prepare students for one of the Oracle DBA certification exams.
Prerequisite: COP2741C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

COP2744C ORACLE DBA: PERFORMANCE TUNING
This course will introduce students to the importance of good initial database design, and the methods used to tune a production Oracle database. The focus is on Database and Instance tuning, rather than specific operating system performance issues. Using available Oracle tools, students will learn how to recognize, trouble-shoot, and resolve common performance related problems in administering an Oracle database. The skills developed in this class will help prepare students for one of the Oracle DBA certification exams.
Prerequisite: COP2742C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

COP2745C ORACLE DEVELOPER: DEVELOP PL/SQL
This course enables students to learn how to write PL/SQL procedures, functions and packages. Working in both the Procedure Builder and the SQL*Plus environment, students will learn how to create and manage PL/SQL program units and database triggers. Students will also learn how to use some of the Oracle-supplied packages. This course is designed to prepare students to successfully complete one of the Oracle Application Developer certification exams.
Prerequisite: COP2740C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

COP2746C ORACLE DEVELOPER: BUILD INTERNET APPLICATIONS I
In this course students will build and test inter-active internet applications. Working in a graphical user interface (GUI) environment, students will learn how to customize forms with user input items such as check boxes, list items, and radio groups. They will also learn how to modify data access by creating event-related triggers. This class is designed to prepare students for one of the Oracle Application Developer certification exams.
Prerequisite: COP2745C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

COP2800C PROGRAMMING IN JAVA
This course introduces students to the JAVA Programming Language. Projects will focus on object-oriented programming techniques to create JAVA applications for performing Internet transactions.
Prerequisite: COP1337C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

COP2801C JAVASCRIPTING
This course will teach students to write JavaScript that can be executed on any computer running compatible software. These programs will be created using this object-based scripting language and designed to interact over the Internet or any other similar network with an appropriate Web Browser. Students will learn JavaScript structure and syntax, how to interact with environment variables, use event handlers, perform form validation, create rollover effects and receive an overview of working with cookies. Students will conceptualize and develop interactive web sites using the full features of JavaScript.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 125.00

COP2805C SUN: ADVANCED JAVA PROGRAMMING
This course teaches students advanced Java programming, object-oriented programming with Java, graphical interfaces (GUIs) creation, exceptions, file input/output (I/O), threads, and networking. The skills developed in this class will help prepare students for the Sun Java Programmer certification exam and the Sun Java Developer certification.
Prerequisite: COP1341 COP2331C COP2800C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 125.00

COP2821C VISUAL BASIC DEVELOPMENT
This course is designed to create an active X control, how to create a component object model (COM), how to incorporate active X and COM components within a visual basic program, working with cookies. Students will learn JavaScript structure and syntax, how to interact with environment variables, use event handlers, perform form validation, create rollover effects and receive an overview of working with cookies. Students will conceptualize and develop interactive web sites using the full features of JavaScript.
Prerequisite: COP2171C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 50.00

CPO2002 INTRODUCTION TO COMPARATIVE GOVERNMENT
This course is a survey of political systems in the developed and the underdeveloped world. Democratic, non-Democratic, unitary and Federal systems will be analyzed and contrasted. Also the European community will be examined as an example of multinational cooperation.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CPO2140 GOVERNMENT AND POLITICS OF SPAIN
An introduction to the understanding of Spain's governmental process, with emphasis on the structure of Spanish politics, the constitutional framework, the working of the bureaucracy, and the role of interest groups within the context of Spain's constitutional setting.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 29.00

CRW1001 CREATIVE WRITING I
Student writing as the basis for critical discussion with emphasis on fundamental aspects of poetry, fiction, and/or drama.
Course Descriptions

Prerequisite: ENC0020 ENC0021
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CRW1100 FICTION WRITING (3)
Student writing as the basis for critical discussion with emphasis on analysis of the elements of fiction. Instructor's Approval or
Prerequisite: ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CRW1200 MAGAZINE WRITING (3)
Student writing as the basis for critical discussions with emphasis on analysis of the elements or article writing. Instructor's Approval or
Prerequisite: ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CRW1300 POETRY WRITING (3)
Student writing as the basis for critical discussion with emphasis on analysis for the elements of poetry. Instructor's approval or
Prerequisite: ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CRW2002 CREATIVEWRITING WORKSHOP II (3)
A continuing development of creative writing ability. Prerequisite: Instructor approval or
Prerequisite: CRW1001
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CRW2003 ADVANCED CREATIVE WRITING WORKSHOP (3)
A continuing development of creative writing ability. Students may work on independent writing projects. Directed independent study. Instructor's Approval or
Prerequisite: CRW2002
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CRW2005 ADVANCED CREATIVE WRITING WORKSHOP (1)
A continuing development of creative writing ability. Students may work on independent writing projects. Directed independent study. Instructor's Approval or
Prerequisite: CRW2002
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST0000 CLAST (0)
Prerequisite: ENC1101 MAT1033
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST0001 CLAST RETAKE MATH (0)
Prerequisite: CST0000 MAC1105
Pre or Corequisite: MGF0991
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST0002 CLAST RETAKE ESSAY (0)
Prerequisite: CST0000 ENC1102
Pre or Corequisite: ENC0992
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST0003 CLAST RETAKE ENGLISH (0)
Prerequisite: CST0000 ENC1102
Pre or Corequisite: ENC0992
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST0004 CLAST RETAKE READING (0)
Prerequisite: CST0000
Corequisite: REA0991
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST0010 CLAST MATH ONLY (0)
Prerequisite: MAC1105
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CST1111C LINUX + (4)
This course is designed to teach students the skills they need to effectively administer Linux workstations and servers. Students will plan, install, maintain, and troubleshoot Linux operating system services. The skills developed by students completing this course will help prepare them for the CompTIA Linux+ certification exam.
Prerequisite: CDA1302C CDA1403C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 125.00

CST1112C SUN: SOLARIS SYSTEM ADMINISTRATION (4)
This course provides students with the necessary knowledge and skills to perform essential system administration tasks in the current Solaris OE, such as installing software, managing file systems, performing system boot procedures, performing user and security administration, managing network printers and system processes, and performing system backups and restores. The skills developed in this course will help prepare students for the Sun Certified System Administrator for the Solaris Operating Environment, part I exam.
Prerequisite: COP1341
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 125.00

CST1113C SUN: SOLARIS SYSTEM ADMIN II (4)
This course provides students with the necessary knowledge and skills to perform network basics, manage virtual file systems and core dumps, manage storage volumes, control access and configure system messaging, set up naming services, and perform installation procedures. The skills developed in this course will help prepare students for the Sun Certified System Administrator for the Solaris Operating Environment, part II exam.
Prerequisite: CST1112C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 125.00

CST11173C RED HAT LINUX SYSTEM ADMIN I (3)
Students will learn to be effective administrators of Linux systems, mastering tasks such as hardware and device configuration, file system management, user administration, network configurations, kernel services, attaching new linux systems to a corporate network, configuring the new systems for end-users, and troubleshooting. This is the first course in the series of two for the Red Hat Linux Core System Administration curriculum.
Prerequisite: CST1111C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CST1240C MICROSOFT SPECIALIST: ADVANCED WORD (3)
This course will provide specialized training on advanced word processing concepts and techniques. The major emphasis of this course will be the use of styles, workgroup editing, graphics, advanced table features, and macros. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Word certification exam.
Prerequisite: CGS1100
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 50.00

CST1280C MICROSOFT SPECIALIST: ADVANCED EXCEL (3)
This course will teach students advanced skills and design concepts necessary for employing Microsoft Excel to provide solutions to complex business problems. This course covers advanced topics in spreadsheet and workbook design, complex formulas, functions, database management, and macro programming. The course includes hands-on experiences with exercises and projects to provide students with a thorough working knowledge of Microsoft Excel. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Excel certification exam.
Prerequisite: CGS1100
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 50.00
CTS1301C LINUX NETWORKING (4)
This course covers common networking services, while providing an in-depth understanding of Linux and GNU network-related packages. It covers common services such as Apache, ssh, telnet, ftp, and sendmail; and provides a detailed walk-through of network configuration using console tools such as ipconfig, ifconfig, and route, as well as common GUI tools. This course also reviews network architectures and topologies, including the standard protocols. The skills developed by students completing this course (in combination with CEN1881C, CEN1882C, and CEN1883C) will help prepare them for the LPI Level 1 certification exams.
Prerequisite: CTS1301C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00

CTS1311C LINUX SECURITY (3)
This course covers the fundamentals of security. It examines common security problems, and provides a detailed walk-through of several security-related tools. The course also discusses the proper use of administrative privileges and privacy. The skills developed by students completing this course (in combination with CEN1881C, CEN1882C, and CEN1883C) will help prepare them for the LPI Level 1 certification exams.
Prerequisite: CTS1301C
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00

CTS1321C RED HAT LINUX SYSTEM ADMIN II (4)
Students will learn to be effective administrators of Linux systems, mastering tasks such as hardware and device configuration, file system management, user administration, network configurations, kernel services, attaching new Linux systems to a corporate network, configuring the new systems for end-users, and troubleshooting. This is the second course in the series of two for the Red Hat Linux Core System Administration curriculum.
Prerequisite: CTS11173C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00

CTS1344C SUN: ADVANCED SHELL SCRIPTING (4)
This course provides students with the skills to read, write and debug UNIX shell scripts. The course begins by describing simple scripts to automate frequently executed commands and continues by describing conditional logic, user interaction, loops, menus, traps, and functions. This course is intended for system administrators who have mastered the basic Solaris Ym’ Operating Environment (OE) and who would like to read and understand the various boot scripts and write their own scripts to automate their day-to-day tasks. This course explores, in detail, the Bourne and Korn shell scripting languages.
Prerequisite: CTS1112C
Lec Hrs = 56  Lab Hrs = 8  Oth Hrs = 0  Fees = 125.00

CTS1431C MICROSOFT SPECIALIST: ADVANCED ACC (3)
This course teaches students advanced skills and design concepts for employing Microsoft Access to quickly retrieve and manipulate enterprise data. The course includes hands-on experiences with exercises and projects to provide students with a thorough working knowledge of Microsoft Access programming. This course is valuable for anyone wanting to design and implement powerful database applications, including software developers, analysts, webmasters, programmers, and power users. The skills developed by students completing this course will help prepare them for the Microsoft Office Powerpoint certification exam.
Prerequisite: CGS1100
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

CTS1433C QUERYING MICROSOFT SQL SERVER WITH TRANSACT-SQL (3)
The goal of this course is to provide students with the technical skills required to write basic Transact-SQL queries for Microsoft SQL Server.

Prerequisite: CGS1540C CIS2342
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 150.00

CTS1570C MICROSOFT SPECIALIST: ADVANCED POWERPOINT (3)
This course is designed to develop the advanced Microsoft PowerPoint skills to generate a variety of business presentations. Students will prepare complete presentations for screen, printer, slide presentations, and other multimedia environments. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Powerpoint certification exam.
Prerequisite: CGS1100
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

CTS1730C CIW: JAVASCRIPT FUNDAMENTALS (2)
This CIW certification course teaches developers how to use the features of the JavaScript language and design client-side, platform-independent solutions. Students learn how to write JavaScript programs, script for the JavaScript object model, control program flow, validate forms, animate images, target frames, and create cookies. Students will also understand and use the most popular applications of JavaScript. This course, in combination with COP1806C, prepares students for the CIW Web Languages certification exams.
Prerequisite: CTS1860C
Lec Hrs = 24  Lab Hrs = 8  Oth Hrs = 0  Fees = 100.00

CTS1731C CIW: PERL FUNDAMENTALS (3)
This CIW certification course teaches students how to fully utilize the Perl programming language. Students learn the Perl syntax, the basics of using regular expression, how to use Perl data types, and how to access and manipulate files. Students are also introduced to database connectivity and debugging techniques. This course, in combination with COP1802C, prepares students for the CIW Web Languages certification exams.
Prerequisite: CTS1860C
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 100.00

CTS1760C MICROSOFT SPECIALIST: ADVANCED OUTLOOK (1)
This course will develop advanced skills in a powerful desktop information management (DIM) program that assists in organizing work schedules, tracking files, and communicating with others. the student will use his/her high level skills on all the Microsoft Office software suite (Word, Excel, Access, Powerpoint) to create integrated planners, various integrated application files, and multi-user information sharing through this DIM. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Outlook certification exam.
Prerequisite: CGS1100
Lec Hrs = 12  Lab Hrs = 4  Oth Hrs = 0  Fees = 40.00

CTS1823C MACROMEDIA DREAMWEAVER (3)
This course teaches students how to use the Macromedia Dreamweaver Integrated Development Environment. Students learn project requirements, website usability, using rich medica content, content control tools, website building techniques, collaboration and site testing, and how to manage and maintain websites.
Prerequisite: CTS1860C
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 100.00

CTS1824C ADOBE PHOTOSHOP (3)
This Adobe course teaches students how to fully utilize the latest Adobe Photoshop image editing tool. Students learn to paint and retouch images, use layers, support video, work with vector tools, manage digital assets, work with RAW camera files, manage color, and prepare images for output to the web.
Prerequisite: CTS1860C
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 100.00
CTS1826C CIW: ADVANCED INTERNET SYSTEM MANAGEMENT (3)
This CIW certification course teaches students how to implement mission-critical services on the Windows and Linux platforms. Students learn to configure Web, Newsgroup, e-mail and proxy servers; receive in-depth understanding of how to configure e-commerce databases to Web servers; and learn how to enable CGI on Windows and Linux. Students also learn about back-up and load balancing issues, and receive foundational knowledge concerning Internet security. This course is designed for personnel responsible for implementing real-world solutions for company intranets or ISPs that provide Internet Web services. This course prepares students for the CIW Security+ Administrator certification exam. Prerequisite: CEN1301C CTS1111C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 110.00

CTS1850C MACROMEDIA FLASH (3)
This course teaches students how to produce vector-based animated and interactive websites using Macromedia's Flash toolset. The course will cover everything from the basic interface to advanced button design and form interaction. Students will learn about the multimedia features in Flash and learn how to take advantage of them. Prerequisite: CTS1823C
Lec Hrs = 40 Lab Hrs = 8 Oth Hrs = 0 Fees = 100.00

CTS1860C I-NET+ (4)
This course is a vendor-neutral, entry-level course that provides students with baseline technical knowledge and skills of Internet, intranet, and extranet technologies, independent of specific Internet-related career roles. Students will gain a basic knowledge and/or competency of Internet skills and tasks in 5 core content areas: Internet Basics and Clients, Development, Networking, Internet Security, and Business Concepts. The skills developed by students completing this course will help prepare them for the CompTIA I-NET+ certification exam. Prerequisite: CEN1301C CTS1433C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 90.00

CTS2309C IMPLEMENT & ADMIN SEC.A MICROSOFT WIN SERV NETWORK (4)
This course is part of the Security Portfolio and will act as the primary entry point for IT Professionals at the implementation level and is for system administrators or system engineers who have the foundation implementation skills and knowledge for the deployment of secure Microsoft Windows Server based solutions. This course is not intended to provide design skills, but will cover planning skills at a level sufficient to enable decision making for the implementation process. Prerequisite: CEN1301C CTS1433C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CTS2312C SECURITY+ (4)
This course provides the student with an understanding of the computer, network, infrastructure, and information security issues faced by industry worldwide. Expertise necessary to combat and protect intellectual property from theft and destruction are also developed. The skills developed by students who complete this course will prepare them for the Security+ certification exam. Prerequisite: CET2489C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 150.00

CTS2434C PROGRAMMING A MICROSOFT SQL SERVER NETWORK (4)
This course provides students with the technical skills required to program a database solution using Microsoft SQL Server. The skills developed by students completing this course will help prepare them for the Microsoft Programming a SQL Server Database certification exam. Prerequisite: CTS1433C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CTS2750C SUPPORTING MICROSOFT OFFICE (2)
This course is designed to teach students the skills they need to effectively provide technical support for Microsoft Office end users. The course covers topics such as macro viruses, file security, printing, and application configuration. Students will learn installation procedures and troubleshooting techniques, and strengthen their problem-solving skills. Prerequisite: CTS1240C CTS1280C CTS1431C CTS1570C Lec Hrs = 24 Lab Hrs = 8 Oth Hrs = 0 Fees = 40.00

CTS2811C ADMINISTERING A MICROSOFT SQL SERVER (4)
This course provides students with the knowledge and skills necessary to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. The skills developed by students completing this course will help prepare them for the Microsoft Administering a SQL Server certification exam. Prerequisite: CEN1301C CTS1433C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CTS2814C IMPLEMENTING MICROSOFT EXCHANGE SERVER (4)
This course will give students the knowledge and skills necessary to install, configure, and administer Microsoft Exchange. The skills developed by students completing this course will help prepare them for the Microsoft Exchange certification exam. Prerequisite: CEN1321C
Lec Hrs = 56 Lab Hrs = 8 Oth Hrs = 0 Fees = 150.00

CVT1200 CARDIOPULMONARY PHARMACOLOGY (3)
This course provides an overview of drugs related to the cardiopulmonary system with special emphasis on the drugs used to treat cardiac and pulmonary patients. Prerequisite: RET1485 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CVT1501 BASIC ELECTROCARDIOGRAPHY (2)
This course will discuss a brief history of electrocardiography, the role of the technician, the care and use of the electrocardiographic (EKG) machine, positioning the patient, electrical hazards, normal EKG pattern, identifying and reporting abnormal EKG patterns and mounting the EKG. Instructor's approval or Prerequisite: CAE0062 CAE0216 Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 29.00

CVT2420 INVASIVE CARDIOLOGY I (3)
Introduces the student to diagnostic procedures performed in the cardiac catheterization Laboratory. Emphasis is made on left and right heart catheterization techniques and hemodynamics, operation of x-ray equipment and film processing, sterile techniques and application of resulting data for patient diagnosis. Prerequisite: CVT2620 CVT2620L Pre or Corequisite: CVT1200 CVT2420L CVT2842L Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CVT2420L INVASIVE CARDIOLOGY I LAB (2)
This laboratory course provides an orientation to the cardiac catheterization laboratory with practical application, including x-ray equipment and film processing, sterile technique, physiologic monitoring, intra-aortic balloon pump and emergency protocols. Prerequisite: CVT2620 CVT2620L Pre or Corequisite: CVT1200 CVT2420L CVT2842L Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 35.00

CVT2421 INVASIVE CARDIOLOGY II (3)
This course introduces the student to the intervention procedures performed in the cardiac catheterization laboratory, including, percutaneous transluminal coronary angioplasties, special valvuloplasties, peripheral angioplasties, post procedural care and electrophysiology studies.
CVT2620 NON INVASIVE CARDIOLOGY (3)
This course provides an introduction to cardiovascular testing using vector cardiography, electrocardiology, graded exercise testing, nuclear cardiology and basic echocardiography. Performance competency and patient safety will be emphasized. Prerequisites: Admission to the Cardiovascular Technology Program. 
Prerequisite: BSC1085 ENC1101 MAT1033 
Pre or Corequisite: CVT2620L RET1485 
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

CVT2620L NON INVASIVE CARDIOLOGY LAB (1)
This laboratory course provides the student an opportunity to develop skills in non-invasive cardiovascular testing using EKG, Holter monitors, stress tests and echocardiography. Performance competency and patient safety will be emphasized. Prerequisites: Admission to the Cardiovascular Technology Program. 
Prerequisite: BSC1085 CHM1032 MAT1033 
Pre or Corequisite: CVT2620 RET1485 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 35.00

CVT2840L CARDIOPULMONARY CLINIC I (4)
This course provides an orientation to clinic experience with diagnostic procedures in the cardiac catheterization laboratories. This includes observing, assisting with set-up for procedures and gaining practical knowledge of the administrative duties involved in the operation of the cardiac catheterization laboratory. Prerequisite: Admission to the Cardiovascular Technology Program. 
Prerequisite: CVT2421 CVT2421L 
Pre or Corequisite: CVT2920 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 400 Fees = 50.45

CVT2841L CARDIOPULMONARY CLINIC II (4)
This course provides clinical experience with all aspects of diagnostic and interventional procedures in cardiac catheterization laboratories. Emphasis is on observation and assistance of PTCA’s with special interventional devices such as TEC, DCA and stents. Upon completion of this course students will be proficient in all aspects of the invasive cardiac catheterization laboratory. 
Prerequisite: CVT2840L 
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 400 Fees = 25.45

CVT2842L CARDIOPULMONARY CLINIC III (4)
This course provides clinical experience with various aspects of non-invasive cardiology, including electrocardiography, Holter monitoring, stress testing, nuclear medicine, cardiac rehabilitation, and echocardiography in affiliated hospitals. Prerequisite: CVT2620 CVT2620L 
Pre or Corequisite: CVT1200 CVT2420 CVT2420L 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 256 Fees = 25.45

CVT2920 CARDIOVASCULAR PATHOPHYSIOLOGY (3)
This course provides an overview of the pathogenesis and pathophysiology of the major cardiac diseases. 
Prerequisite: CVT2421 CVT2421L 
Pre or Corequisite: CVT2840L 
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

DAA1104 BEGINNING MODERN DANCE I (2)
Basic modern dance technique, exercises, and choreography are used to achieve physical objectives, to increase artistic self-awareness and to extend cultural enrichment. Coeducational. 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA1105 MODERN DANCE II (2)
A continuation of DAA1104. Further development of modern dance techniques with an emphasis on vocabulary, alignment, movement phrasing, and rhythm. Participation in semester dance concert required. Coeducational. Permission of instructor or 
Prerequisite: DAA1104 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA1204 BALLET I (2)
An academic study of techniques and theoretical concepts of ballet for the performance-oriented student. Includes warm-up, barre, and centre combinations. Coeducational. 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA1205 BALLET II (2)
Continuation of DAA1204. Ballet exercises and step combinations for the intermediate performance student, building on basic skills and culminating in a live performance. Coeducational. Participation in semester dance concert required. Prerequisite: Instructor permission or 
Prerequisite: DAA1204 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA1504 JAZZ DANCE I (2)
This is a course in Jazz technique. Included are warm-up, stretch and strengthening, centre exercises, and basic jazz combinations. Coeducational. 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA1505 JAZZ DANCE II (2)
A course in jazz technique with emphasis on various jazz styles and performance. Includes warm-up, stretch and strengthening, centre exercises, and intermediate level jazz dance combinations. Coeducational. Permission of Instructor. 
Prerequisite: DAA1504 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 2.00

DAA1520 BASIC TAP (2)
Course will include beginning level tap steps including basic barre, centre floor exercises, step combinations and choreography. Coeducational. Students must furnish their own tap shoes. 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA1680 DANCE REPERTORY (1)
Participation as a dancer/performer in dance works of ballet, jazz, and modern vocabularies. Works include those of dance faculty, guest artists, as well as student choreography. Coeducational. May be repeated for credit. Corequisite: Student must be enrolled in at least one BCC dance technique class. 
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

DAA2106 MODERN DANCE III (2)
A continuation of DAA1105 with an emphasis on advanced movement phrases and combinations necessary to perform modern dance repertory. Further emphasis will be placed on the development of the students’ style and performance quality. Coeducational. May be repeated for credit. Prerequisite: Permission of instructor or 
Prerequisite: DAA1105 
Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

DAA2206 BALLET III (2)
Continuation of DAA1205. Emphasis on developing strength and coordination in more complex phrasing and movement. This course will explore and develop an understanding of the vocabulary, technique, and theoretical concepts of ballet on an
DEA2600 MUSIC FOR DANCE (2)
Designed to provide both the dancer and choreographer with the musical knowledge and tools to enhance how they use music in their discipline and how they communicate their musical needs to musicians.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

DEA0000 INTRODUCTION TO DENTISTRY (1)
An overview of dentistry and the dental assisting profession including its history, ethical and legal aspects, duties and responsibilities of the dental health team, professional organizations, and proper conduct and grooming of the dental assistant. 2 hrs. Lec. Term I. Instructor approval or Corequisite: DEA0025
Lec Hrs = 30  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

DEA0025 PRE CLINICAL (2)
Designed to orient the student to the dental office and the use and sterilization of all instruments and equipment used in the practice of dentistry. Special fee charged. 4 hrs. Lec. Term I Instructor's Approval or Pre or Corequisite: DEA0025L DES0100 DES0840
Lec Hrs = 60  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

DEA0025L PRECLINICAL LABORATORY (4)
Laboratory/clinical portion of DEA0025. Provides hands-on instruction of use and sterilization of all instruments and equipment used in the practice of dentistry. Special fee charged. 8 hrs. Lab./Clinical. Term I. Instructor approval or Pre or Corequisite: DEA0025 DES0100 DES0840
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 120  Fees = 50.00

DEA0130 ALLIED DENTAL THEORY (1)
Designed to acquaint the student with basic body structures, functions and diseases which affect dental treatment. Basic concepts of microbiology and their relevance to sterilization. General aspects of oral pathology, including common pathological conditions of the mouth, teeth, and their supporting structures will be covered. Additional consideration will be given to the pharmacological properties, therapeutic applications and any toxicities or contraindications of drugs and medicaments commonly used in dentistry. Essential material on the symptoms, treatment, and equipment required to render adequate care for the common office emergencies will be included. 4 hrs Lec. Term II. Instructor approval or Prerequisite: DEA0025 DES0200
Pre or Corequisite: DES0831 DES0831L
Lec Hrs = 30  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

DEA0150 DENTAL PSYCHOLOGY (1)
This course will offer material on the basic theories of psychology which enable the dental assistant to possess a greater understanding of why people act as they do. Included in the course are practical techniques for effective patient management and basic guidelines for establishing a better interpersonal relationship between the dental assistant, dental staff and the dental patient. 1 hr. Lec. Term II. Instructor approval or Prerequisite: DEA0000 DEA0025 DES0840
Pre or Corequisite: DES0801
Lec Hrs = 30  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

DEA2940 DENTAL PRACTICUM (3)
Designed to provide an opportunity for continued practice in dental assisting procedures while the student is completing the general college courses necessary to meet the requirements of an Associate in Science Degree. Arranged hrs. Term II.
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 192  Fees = 70.95
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**Course Descriptions**

**DEH2400 GENERAL AND ORAL PATHOLOGY (2)**
This course provides principles of general and oral pathology as it relates to diseases of the oral cavity. There will be emphasis on the importance of the dental hygienist's recognition of normal and abnormal conditions.
Pre or Corequisite: DEH1003 DEH1003L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEH2701 COMMUNITY DENTAL HEALTH (2)**
This course will teach the student the concepts of community dental health. Topics covered include the measurement of dental disease, prevention programs, community outreach programs, and simple statistical analysis.
Prerequisite: DEH1130 DES1051
Pre or Corequisite: DEH2701L DEH2804L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEH2701L COMMUNITY DENTAL HEALTH LAB (1)**
This course is the follow through for DEH2701. The student will apply community health principles by designing and presenting dental health education principles to various community audiences.
Prerequisite: DEH1130 DES1051
Pre or Corequisite: DEH2701 DEH2804L DEH2806 DEH2806L
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

**DEH2804L DENTAL HYGIENE III CLINIC (4)**
The laboratory portion of this course provides advanced application of the principles of preventive hygiene and oral prophylaxis techniques on patients in the clinic under supervision.
Prerequisite: DEH2806 DEH2806L
Pre or Corequisite: DEH2804
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 192 Fees = 50.00

**DEH2806 DENTAL HYGIENE IV (2)**
This course provides continuation of theoretical material related to clinic dental hygiene practice. It includes discussion on case information community dental health, ethics and jurisprudence and Florida Statutes 466 Rule 21G.
Prerequisite: DEH1802 DEH1802L
Pre or Corequisite: DEH2806L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEH2806L DENTAL HYGIENE IV CLINIC (4)**
This course provides continuation of clinical experience with patients, developing previously learned skills and knowledge. The emphasis is placed on advanced instrumentation and patient management skills necessary to treat the more advanced patients.
Prerequisite: DEH2701 DEH2804L
Pre or Corequisite: DEH2701L DEH2806
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 192 Fees = 70.95

**DEH2944L ADVANCED DENTAL HYGIENE CLINIC (1)**
This course is designed for students who have successfully graduated from Broward Community College's Dental Hygiene Program to maintain and/ or update clinical skills prior to taking the Florida Stateboard Clinical Examination.
Lec Hrs = 40 Lab Hrs = 0 Oth Hrs = 76 Fees = 20.95

**DEP2002 DEVELOPMENTAL PSY I: CHILD PSYCHOLOGY (3)**
Study of the concepts and principles of growth and development in infancy and childhood.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEP2004 DEVELOPMENTAL PSYCHOLOGY (3)**
This is a general life span developmental psychology offering that considers human growth from conception to death. It is designed to give a general overview of the developmental processes.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEP2302 DEVELOPMENTAL PSYCH II: ADOLESCENT (3)**
The personal, social and developmental aspects of adolescence and early adulthood are reviewed in this course. A focus is placed upon the research dealing with the characteristic problems and adjustments of this life stage.
Prerequisite: PSY2012
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEP2481 THE PSYCHOLOGY OF DYING (3)**
An examination of the historical and present perspectives of death and dying in an intensive assessment of the psychological and cultural factors that serve as the etiological basis of this phenomena. Topics include grief, euthanasia, eschatology, the dying person, the Hospice systems bereavement, and widowhood.
Prerequisite: PSY2012
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)**
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I. Instructor's approval or
Pre or Corequisite: DEA0025 DES0200 DES0830
Lec Hrs = 45 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DES0100 DENTAL MATERIALS (1)**
Designed to familiarize the student with the various types of materials, their physical properties and characteristics, proper manipulation and designed application in the practice of dentistry. 2 hrs. lec. Term I Instructors approval or Corequisite: DES0100L
Lec Hrs = 35 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DES0100L DENTAL MATERIALS LAB (1)**
Laboratory portion of DES0100. Proper manipulation and designed application in the practice of dentistry. Projects demonstrating proficiency in the technical applications and proper manipulation of specified dental materials will be required. Special fee charged. Instructors approval or 3 hrs lab Term I.
Corequisite: DES0100
Lec Hrs = 0 Lab Hrs = 45 Oth Hrs = 0 Fees = 50.00

**DES0200 DENTAL RADIOGRAPHY (1)**
Fundamentals of radiological science as applied to dentistry will be presented. Special consideration will be given to radiation physics, hazards, biological effects, protection, and control methods. Also proper techniques for exposing, processing and mounting of radiographs are included. 2 hrs. lec. Term I. Instructor's approval or Corequisite: DES0200L
Lec Hrs = 40 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DES0200L DENTAL RADIOGRAPHY LAB (2)**
Laboratory portion of DES0200. Proper techniques for exposing, processing, and mounting radiographs. Laboratory exercise demonstrating proficiency in these techniques will be required. 4 hrs. lab. Term I. Instructor approval or Corequisite: DES0200
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 60 Fees = 70.95

**DES0400 BASIC ANATOMY AND PHYSIOLOGY (1)**
A basic anatomy and physiology course designed specifically to meet the needs of dental assisting students. Emphasis will be placed on the human body structure, functions of its components and associated diseases which affect the total care of the dental patient.
Prerequisite: DEA0025 DES0021
Pre or Corequisite: DES0831 DES0831L
Lec Hrs = 30 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DES0502 DENTAL OFFICE MANAGEMENT (1)**
The study of efficient dental office management. Basic concepts to be presented will include telephone etiquette and
This course is designed to be a continuation of dental auxiliary.

**DE0801L EXPANDED FUNCTION II LAB** (5)
Practicum phase provides the opportunity for each student to receive closely supervised individual instruction in all phases of chairside assisting. Special fee charged. 12 hrs. Lab. Term II. Instructor's approval or
Pre or Corequisite: DEA0025 DEA0025L
Lec Hrs = 30 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DE0802 CLINICAL PROCEDURES II** (1)
Practicum phase is a continuation of DES0801 with the addition of a supervised externship program utilizing dental offices and public health facilities in the community. Lecture demonstration series focuses on selected dental topics pertaining to effective dental assisting and the additional duties permitted by rules and regulations of the Florida State Board of Dentistry. 30 hrs. minimum per week. Term III, Session II.
Preprerequisite: DEA0025 DEA0025L DES0801 DES0801L
Corequisite: DES0802L
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 165 Fees = 70.95

**DE0802L CLINICAL PROCEDURES II LABORATORY** (4)
Practicum phase is a continuation of DE0801L with the addition of a supervised externship utilizing dental offices and public health facilities in the community. Special fee charged. Field experience. 30 hrs. minimum per week. Term III, Session II.
Preprerequisite: DEA0025 DEA0025L DES0801 DES0801L
Corequisite: DES0802
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 135 Fees = 18.95

**DE0830 EXPANDED FUNCTIONS I** (2)
The course is designed to provide the basic knowledge and clinical practice necessary for the dental assisting student to perform the expanded functions permitted by the rules and regulations of the Florida State Board of Dentistry. 3 hrs. lec. instruction. Instructor's approval or
Pre or Corequisite: DEA0025 DEA0025L
Lec Hrs = 60 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DE0831 EXPANDED FUNCTIONS II** (1)
The course is designed to be a continuation of dental auxiliary expanded functions I. It will provide the basic knowledge necessary to perform the more complex expanded functions permitted by the rules and regulations of Florida State Board of Dentistry. Special fee charged. 3 hrs. lab. Term II. Instructor's approval or
Pre or Corequisite: DEA0025 DEA0025L DES0830
Lec Hrs = 30 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DE0831L EXPANDED FUNCTION II LAB** (2)
This course is designed to be a continuation of dental auxiliary expanded functions I. It will provide the clinical practice necessary to perform the more complex expanded functions permitted by the rules and regulations of Florida State Board of Dentistry. Special fee charged. 3 hrs. lab. Term II. Instructor's approval or
Pre or Corequisite: DEA0025 DEA0025L DES0830
Lec Hrs = 0 Lab Hrs = 60 Oth Hrs = 0 Fees = 50.00

**DE0840 PREVENTIVE DENTISTRY** (1)
Emphasis is placed on the development of a plaque control program to meet individual patient needs. Materials on methods of toothbrushing, supplementary aids for oral physiotherapy and the use of fluorides, and nutritional counseling in preventive dentistry will be presented. Instructor's approval or
Pre or Corequisite: DEA0025
Lec Hrs = 40 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DI8051 PAIN CONTROL AND DENTAL ANESTHESIA** (1)
This course provides a study of agents used in dentistry for local anesthesia and pain control.
Preprerequisite: DEH1003 DEH1003L DEH1800 DEH1800L
Pre or Corequisite: DEH1130 DEH1802 DEH1802L
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DEH2050 DENTAL PHARMACOLOGY** (2)
This course provides an understanding of the drugs commonly encountered in the dental office. The student will gain knowledge in the origin, physical and chemical properties, modes of administration and effects upon the body system.
Preprerequisite: DEH11003 DEH1003L DEH2400 DES2050
Pre or Corequisite: DEH1180 DEH1800L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DIM1001 DIESEL ENGINE FUNDAMENTALS** (3)
A course designed to teach the principles, operations, and maintenance of automotive and light truck diesel engines, electrical systems, emission control systems, lubrication and exhaust systems.
Preprerequisite: DIM1001
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DIM1010 ADVANCED DIESEL ENGINE AND REPAIR** (6)
A course designed to teach the principles, operations, maintenance diagnosis, and repair of medium and heavy vehicle diesel engines. Topics include diagnosis, and repair of cylinder head and valve train, engine block, lubrication, system, cooling system, air induction and exhaust systems, fuel system and engine brakes.
Preprerequisite: DIM1001
Lec Hrs = 96 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**DSC1011 TERRORISM AND DOMESTIC SECURITY** (3)
A study of domestic and international terrorism as it relates to domestic security. Topics include terrorist organizations and motivations, investigating terrorism threats, conducting vulnerability assessments of potential terrorist targets, and the role of government agencies in response to a terrorist incident and recovery afterwards.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**EAP0100C LISTENING/SPEAKING I** (3)
A beginning level speaking and listening course. Students develop the ability to understand frequently used words in oral contexts and understand and respond appropriately to simple phrases and questions. PREREQUISITE: Through placement testing and/or department recommendation.
Lec Hrs = 48 Lab Hrs = 13 Oth Hrs = 0 Fees = 20.00

**EAP0120C READING I** (3)
This is a level 100 beginning ESL reading course designed for students in English for Academic Purposes (EAP) programs. It emphasizes vocabulary and comprehension on a basic level. Placement in EAP0120C is determined by assessment tests and/or referral. Students must earn a C or higher to proceed to EAP0220C.
Lec Hrs = 48 Lab Hrs = 13 Oth Hrs = 0 Fees = 20.00
EAP0185C GRAMMAR/Writing I (6)
A low-beginning level combined skills course for speakers of other languages designed principally to guide the students to the development of basic grammar and basic writing structures as applied to academic English. Students will develop writing skills in the context of guided discourse on personal topics with an emphasis on logical thought and mechanics. The requirement to move to the next level (EAP0285C) is a C or higher. With a D or F, a student must repeat EAP0185C.
Prerequisite: Through placement testing and/or department recommendation.
Lec Hrs = 96  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0200C LISTENING/SPEAKING II (3)
A high beginning level listening and speaking course. Students continue to develop the ability to understand frequently used words in oral contexts and understand and appropriately respond to simple phrases and questions. Prerequisite: Through placement and/or department recommendation.
Prerequisite: EAP0100C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0220C READING II (3)
This is a level 200 high beginning ESL reading course designed for students in English for Academic Purposes (EAP) programs. It emphasizes vocabulary and comprehension on a basic level. Placement in EAP0220C is determined by successful completion of EAP0120C (a grade of C or higher) or assessment tests and/or referral. Students must earn a C or higher to proceed to EAP0320C.
Prerequisite: EAP0120C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0285C GRAMMAR/Writing II (6)
A high-beginning level combined skills course for speakers of other languages designed principally to guide the students to the development of basic grammar and writing structures as applied to academic English. Students will develop writing skills in the context of guided discourse on personal topics with an emphasis on logical thought and mechanics. The requirement to move to the next level (EAP0385C) is a C or higher. With a D or F, a student must repeat EAP0285C.
Prerequisite: EAP0185C
Lec Hrs = 96  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0300C LISTENING AND SPEAKING III (3)
A course designed to help low intermediate-level ESL students develop speaking and listening skills. Students develop speaking and listening skills necessary for participating in classroom discussion with an emphasis on clarification through rewording and asking questions. With a D or an F, a student must repeat EAP0300C. Student fee charged.
Prerequisite: EAP0200C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0320C READING III (4)
This is a level 300, low intermediate ESL reading course designed for students in English for Academic Purposes (EAP) programs. It emphasizes vocabulary and comprehension on an intermediate level. Placement in EAP0320C is determined by successful completion of EAP0220C (a grade of C or higher) or assessment tests and/or referral. Students must earn at least a C to pass the course and proceed to EAP0420C.
Prerequisite: EAP0220C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0385C GRAMMAR/Writing III (6)
An intermediate level combined skills course for speakers of other languages designed principally to guide the students to the mastery of grammar and writing structure applied to academic English. The requirement to move to the next level (EAP0485C) is a C or higher. With a D or F, a student must repeat EAP0385C.
Prerequisite: EAP0285C
Lec Hrs = 96  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0400C COMMUNICATION SKILLS IV (3)
Designed to guide the students toward applying pronunciation, phrasing, and intonation of oral American English to communication situations in commercial, academic, and social settings. Involves interview presentation and emphasis on developing listening skills. With a D or an F, a student must repeat EAP0400C. Special fee charged.
Prerequisite: EAP0300C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0420C READING IV (3)
This is a level 400 high intermediate ESL reading course designed for students in English for Academic Purposes (EAP) programs. It emphasizes vocabulary and comprehension on an intermediate level. Placement in EAP0420C is determined by successful completion of EAP0320C (a grade of C or higher) or assessment tests and/or referral. Students must earn a C or higher to pass the course and take the reading section of the CPT for further reading placement.
Prerequisite: EAP0320C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP0485C GRAMMAR/Writing IV (6)
This course is a continuation of EAP0385C. An intermediate course for speakers of other languages designed principally to guide the students to the mastery of complex grammar and the sentence structures, and basic paragraph writing. The requirement to move to the next level (EAP1540C) is a C or higher. With a D or an F, a student must repeat EAP0485C.
Prerequisite: EAP0385C
Lec Hrs = 96  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP1540C ADVANCED COMPOSITION I (3)
A composition course in English for speakers of other languages. Designed principally to guide the student to the mastery of paragraph structure using various paragraph modes and the multi-paragraph essay. The grammar focuses on elements which closely tie in with composition, e.g. connectors and sentence combining. With a D or an F, a student must repeat EAP1540C.
Prerequisite: EAP0400C EAP0420C EAP0485C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

EAP1640C ADVANCED COMPOSITION II (3)
This is an advanced composition course in English for speakers of other languages. Students are given intensive practice in the writing of the multiparagraph essay for various modes. Emphasis is given to clear and logical development of ideas. Students apply advanced grammar skills and precise vocabulary usage to essay writing. With a D or an F, a student must repeat EAP1640C. Special fee charged.
Prerequisite: EAP1540C
Lec Hrs = 48  Lab Hrs = 13  Oth Hrs = 0  Fees = 20.00

ECO2013 PRINCIPLES OF ECONOMICS I (3)
An introductory course in macroeconomic principles covering basic economic problems and concepts. Topics discussed and analyzed include the role of government in various economic systems, aggregate measures of economic performance, aspects of economic instability, macroequilibrium, fiscal and monetary policies, and the impact of the public debt. Meets Area 3B general education requirements for the A.A. degree. Meets Area 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ECO2023 PRINCIPLES OF ECONOMICS II (3)
Continuation of ECO2013 stressing microeconomic theories. Topics studied include the theory and application of supply and demand elasticity. Theory of consumer demand, utility, and indifference curve analysis; the law of diminishing returns in production and the firm's profit-maximizing behaviors under
market models ranging from pure competition to pure monopoly; production theory and the theory of income distribution; comparative advantage, trade policies, exchange rates, balance of payments, and other international economic issues.

Prerequisite: ECO2013
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ECO2220 MONEY AND BANKING  (3)
A general survey of the economics of money and banking covering the nature and functions of money; monetary standards; structure and functions of the Federal Reserve System; monetary policy, monetary theory and the price level; interrelation of monetary and fiscal policy, recent monetary problems, and international finance.

Prerequisite: ECO2013
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ECS2001 COMPARATIVE ECONOMICS SYSTEMS  (3)
This course surveys and analyzes the economic systems of Marxist-Leninist, Social Democrat, Third World Socialist, Mixed and pure Capitalistic models. The course considers individual decision-making structures, the functioning of these economies as a whole, and current topics affecting these systems.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ECS2390 THE ECONOMY OF SPAIN  (3)
An analysis of the Spanish economic system covering the historical development in the public and private sectors; agriculture and industry; and foreign trade relations. Only offered in conjunction with the Semester-In-Spain program.

Meets Area 8 A.A. degree general education requirements.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EDF1005 INTRODUCTION TO EDUCATION  (3)
This course satisfies one of the lower level Prerequisite requirements for education majors. Its focus is teacher preparation for the 21st century by emphasizing social problems, student diversity, legal issues and curriculum themes. It provides an overview of the American education system and an introduction to the teaching profession. The field experience component of 16 hours in a local school, gives students opportunities to understand more about teaching. Students must obtain School Board of Broward County security clearance (cost-$60) and must be available for the term preferably from 8:00-2 pm on a weekday for field experience. Limited access section for TEA program instruction will require 60 hours of early field experience.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EDF1050 INTRODUCTION TO TESTS AND MEASUREMENT  (3)
This course provides basic information on the use of measurement and evaluation in the educational process. It explores the theoretical foundation of test and measurement development and its practical application in the construction and evaluation of tests.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EDF2010 EDUCATIONAL PSYCHOLOGY  (3)
This course reviews psychological principles relevant to effective teaching and learning. Stage theories will be used to address issues of pupil variability. The course will enable students to design and use objectives. Units on instruction will include behavioral, information processing, humanistic and cognitive theories. Finally, measurement and evaluation, as well as classroom management, will be addressed.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EDF2021 TEA: PROF SEM: SRVY OF HUM DEVELOP P (3)
This course is part of a series of four professional seminars for students enrolled in TEA seeking an A.A. degree from BCC. It emphasizes basic concepts and perspectives regarding the impact of human growth and development theory on the teacher, students, education, and society as a whole.

Prerequisite: EDF1005 EDF1034C SYG1931C
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EDF2070 PERSPECTIVES IN EDUCATION  (3)
A study of the principles of American education. Emphasis is placed on the historical, philosophical, sociological, and legal foundations of education in America and their impact on curriculum development, learning, and the teaching profession.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EDG2701 TEACHING DIVERSE POPULATIONS  (3)
This course satisfies one of the lower level Prerequisite requirements for education majors. Upon successful completion of this course, the students should be able to demonstrate an understanding of the basic concepts, perspectives and impact of current social and multicultural diversity issues on the teacher, student, and educational system as a whole. Students should also understand and appreciate the local, State and National implications of these issues. 16 hrs. of field experience in a local school is a requirement of this course. Students must have a current (within 2 years) School Board of Broward County security clearance (cost $60) and must have 3 hours free 1 day per week between 8:00-2pm for field experience. Limited access sections for TEA program instruction will require 60 hrs of early field experience. Prerequisites: Instructor approval or

Prerequisite: EDF1005
Lec Hrs = 48  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

EDG2949 CO OP WORK EXPERIENCE  (3)
A course designed to provide training in a students field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EED1200 EARLY CHILDHOOD EDUCATION  (3)
This course reviews the history and present day aspects of early childhood programs for infants, toddlers, preschool, and school children. Basic principles and foundations of early childhood education are covered.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EED1603 CHILD GUIDANCE  (3)
This course provides child guidance and group management techniques to foster the development of self-esteem, self-control, and social skills in young children.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EET1015C DC CIRCUITS  (5)
This is a first course in electric circuits. Upon completion of this course the student should demonstrate an understanding of the definitions and interrelationships of voltage, current and power in circuits containing passive circuit elements and multiple sources. Extensive laboratory experience is included.

Pre or Corequisite: MTB1325
Lec Hrs = 64  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00

EET1025C AC CIRCUITS  (5)
Upon completion of this course the student shall demonstrate a knowledge of circuit analysis using alternating voltage sources, including the behavior of resistive and reactive passive circuit elements, and frequency and transient response. Magnetic circuits, resonance and ideal transformers are also included. Extensive laboratory experience is included.

Prerequisite: EET1015C MTB1325
Lec Hrs = 64  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00
EGS2949 CO-OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Student and employer basis of documentation of learning acquired as reported by students and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EEM2040 INTRODUCTION TO EDUCATIONAL TECHNOLOGY (3)
This course satisfies one of the lower level Prerequisite requirements for education majors. Students will develop skills and competencies which are essential to integrate technology into the delivery of classroom instruction. Students will survey a variety of traditional and emerging technologies in education. Students will learn the use of technological tools and systems in a classroom environment.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EMS1119 EMERGENCY MEDICAL TECHNICIAN BASIC (6)
This course is designed to prepare the basic emergency medical technician in accord with U.S. Dept. of Transportation curriculum and Florida State EMS guidelines includes an introductory survey of emergency medical services including medical legal/ethical aspects, role of the EMT, patient assessment, care of wounds and fractures, airway maintenance, medical and environmental emergencies, patient transportation, emergency, childbirth, basic extrication. Successful completion of EMS1119, EMS1119L, EMS1411 and EMS1421 provide eligibility for Florida State EMT Certification Examination. Admission to this course requires departmental approval. 96 hrs. Lec. Terms I, II, and III.
Lec Hrs = 96 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EMS1119L EMERGENCY MEDICAL TECHNICIAN SKILLS (1)
Lab practice and testing of basic emergency medical technician skills included in the Department of Transportation EMT ambulance curriculum and Florida State EMS guidelines. Skills include CPR at AHA basic rescuer level, patient assessment, triage, airway maintenance, bandaging, splinting, mast suit application, emergency childbirth, and basic extrication. Successful completion of Corequisites EMS1119, EMS1411, and EMS1421 leads to eligibility to take Florida State EMT Certification Examination. Admission to this course requires departmental approval. 96 hrs. Lec. Terms I, II, and III.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

EMS1381 EMT RECERTIFICATION (1)
This course is designed to review the basic knowledge and skills of emergency care, and to introduce the student to current methods of use of new equipment and changes in medicolegal aspects of emergency medical care. Successful completion of this course with a grade “C” or higher leads to Florida State Recertification as an EMT. This course may also be used by those who wish to prepare for the Florida State EMT Certification Examination. 24 hr. lec 8 hr. lab Term I, II, and III.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EMS1381L EMT RECERTIFICATION LAB (1)
Application of skills and procedures involved in the U.S. Department of Transportation’s Emergency Medical Technician Refresher Course.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 20.00

EMS1411 EMERGENCY MEDICAL TECHNICIAN (EMT) (2)
Practical application of (EMT), emergency medical technician clinical knowledge and skills under professional supervision in the Hospital setting. Course emphasizes the development of student skill in recognition of signs and symptoms of illness and
injuries and in the proper procedures of emergency care. Successful completion of EMS1119, 1119L 1411 and 1421 provide eligibility for Florida State EMT Certification Examination. Health and accident insurance recommended. Liability insurance required. 

Lec Hrs = 0     Lab Hrs = 0     Oth Hrs = 48     Fees = 50.45

EMS2010 BODY SYSTEMS FOR THE PARAMEDIC (3)

This course presents basic information of the structure and function of the human body. The general concepts of anatomy and physiology for the assessment and management of emergency patients by the paramedic in the prehospital field area will be emphasized. The interaction of the body systems as they maintain homeostasis with particular attention placed on the nervous, cardiovascular and respiratory systems will be covered. United States Department of Transportation (USDOT) National Standard Paramedic Curriculum anatomy and physiology objectives will be included.

Lec Hrs = 48     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2311 EMT LEADERSHIP (2)

Introduces the student to professional issues in EMS through special projects. Prerequisite: EMT and Paramedic certificate courses. 32 hrs. Lec. Termin I. (Termin I only)

Lec Hrs = 32     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2391 PARAMEDIC REVIEW RECERTIFICATION (2)

This course is based on the department of transportation's (DOT), paramedic refresher training course and is designed to review and update the graduate in the delivery of emergency medical services. Successful completion of the course with a grade of "C" or higher provides eligibility for State of Florida Paramedic Recertification.

Lec Hrs = 32     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2391L PARAMEDIC REVIEW RECERTIFICATION LAB (1)

Application of skills and procedures involved in the Department of Transportation's Paramedic Refresher Course.

Lec Hrs = 0     Lab Hrs = 32     Oth Hrs = 0     Fees = 20.00

EMS2395 TOPICS IN EMERGENCY MEDICAL SERVICE (1)

This course is designed as a seminar in emergency medical care topics for the graduate paramedic and others interested in the delivery of prehospital emergency medical services seminar. Topics will review the U.S. Department of Transportation five divisions paramedic curriculum and cover current developments, updates and changes in the EMS field. Course content may be submitted to the State of Florida EMS Office as continuing education contact hours for paramedic and EMT Recertification. 10 hrs. lec./on demand.

Lec Hrs = 16     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2513 CRISIS INTERVENTION (3)

Deals with the emotional responses of persons in emergency situations, as well as, the emergency care of the mentally ill person. Includes the legal aspects of caring for the emotionally ill person. 48 hr. lec. Termin II Prerequisite: Certification courses on demand. Pre or Corequisite: PSY2012

Lec Hrs = 48     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2631 PARAMEDIC SCIENCE I (3)

Topics deal with EMT systems, Paramedic role and responsibilities, Paramedic well-being, injury, and disease prevention. Legal aspects, ethics, therapeutic communications, life span development, medical terminology, patient documentation including web based computer recording is covered. Systems as they maintain homeostasis with Didactic aspects of EMS/ambulance operations, Multiple Incident Command (MIC), rescue awareness and operations, hazardous materials incidents and crime scene awareness is presented. Basic math computation for medication administration is introduced. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic curriculum objectives for Module 1, Units 1-5, 9, 10, Module 3, Unit 6, and Module 8.

Pre or Corequisite: EMS2010 EMS2631L EMS2650

Lec Hrs = 48     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2631L PARAMEDIC SCIENCE I LAB. (1)

Review of basic life support skills required for advanced level life support skills practiced by the Paramedic. Additional skills include those contained in the latest Department of Transportation (DOT) National Paramedic Curriculum and include prep topics related to Paramedic well- being, injury prevention, ambulance operations, Medical Incident Command (MIC), Haz-Mat and crime scene awareness. The student is expected to demonstrate basic level skill proficiency in patient care scenarios appropriate for beginning Paramedic practice.

Corequisite: EMS2010 EMS2631 EMS2650

Lec Hrs = 0     Lab Hrs = 32     Oth Hrs = 0     Fees = 50.00

EMS2632 PARAMEDIC SCIENCE II (3)

Topics include general principles of pathophysiology, pharmacology, venous access and medication administration. Patient Assessment including history taking, techniques of physical examination, assessment procedures, clinical decision making, and radio communications are included. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 1, Units 6,7,8 and Module 3, Units 1-5.

Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650

Lec Hrs = 48     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2632L PARAMEDIC SCIENCE II LAB. (1)

Skills Lab related to pharmacology, venous access and medication administration. Patient Assessment skills including history taking, techniques of physical examination, assessment procedures, clinical decision making, and radio communications are included. Other topics include Airway Management/Ventilation and Cardiology. Material includes skills in the U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 1, Units 6,7,8 and Module 3, Units 1-5.

Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650

Lec Hrs = 0     Lab Hrs = 32     Oth Hrs = 0     Fees = 75.00

EMS2633 PARAMEDIC SCIENCE II - CARdio-RESPI (3)

Topics deal with Airway Management and ventilation. Selected units from Medical Emergencies are Pulmonary conditions, and Cardiology to include an introduction to 12 Lead Interpretation and the prehospital management of acute myocardial infarction. Material covers 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 2, and Module 5, Units 1-2.

Lec Hrs = 48     Lab Hrs = 0     Oth Hrs = 0     Fees = 0.00

EMS2634 PARAMEDIC SCIENCE III - TRAUMA (3)

Topics deal with Trauma patient care including trauma systems/mechanisms of injury, hemorrhage and shock, of soft tissue trauma, and burns. Trauma of the head and facial area, spinal, thoracic, abdominal and musculoskeletal system is also covered. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum
objectives for Module 4. Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EMS2634L PARAMEDIC SCIENCE III - TRAUMA LAB. (1) Skills lab dealing with topics of trauma care, medical emergencies, and special care considerations related to obstetrics, neonatology, pediatrics, geriatrics, abuse and assault, patients, with special challenges and acute interventions for the chronic care patient. Material includes U.S. Department of Transportation (DOT), National Paramedic Curriculum objectives for Module 4, and Module 5, Units 3-14 and Module 6, Units 1-6. Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651 Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 75.00

EMS2635 PARAMEDIC SCIENCE III - MEDICAL EME (3) Topics include Medical Emergencies related to neurology, endocrinology, allergies and anaphylaxis, gastroenterology, renal/urology, toxicology, hematology, environmental conditions, infectious and communicable diseases, behavioral and psychiatric disorders, gynecology, and obstetrics. Special Considerations related to neonatology, pediatrics, geriatrics, abuse and assault, patients, with special challenges and acute interventions for the chronic care patient are also included. Material includes U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 5, Units 3-14 and Module 6, Units 1-6. Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EMS2636 PARAMEDIC SCIENCE IV (3) Topics include EMS Assessment Based Management, Continuation of 12 Lead ECG material, and didactic information for certification in Pediatric care, Advanced Life Support, (ACLS), Emergency Management of Acute Stroke, Prehospital Management of Traumatic Brain Injury and Trauma Life Support. Information on the EMS employment process is completed. Material includes U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 7. Prerequisite: EMS2634 EMS2634L EMS2635 EMS2642 EMS2652 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EMS2636L PARAMEDIC SCIENCE IV LAB. (1) Final skills lab dealing with scenarios covering all aspect of the curriculum. Demonstration of skill competencies for Certification in ACLS, PEPP, 12 Lead ECG, Support, Emergency Management of Acute Stroke, and Traumatic Brain Injury required. Prerequisite: EMS2634 EMS2634L EMS2635 EMS2642 EMS2652 Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 75.00

EMS2641 PARAMEDIC SCIENCE - HOSPITAL CLINIC (2) First of three hospital courses stressing Advanced Life Support (ALS) skills for the paramedic student. Provides for directed supervised experiences in local hospitals. Clinical experiences with patients having Medical and Trauma Emergencies is stressed. Special patients of interest include OB-GYN, neonates, pediatric, psychiatric, geriatric, and patients with special challenges. Data recording of skill competencies on web based computer system is required. Health and Liability insurance required. Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 72 Fees = 50.45

EMS2643 PARAMEDIC SCIENCE - HOSPITAL CLINIC (2) Last hospital courses involving patient care in a variety of emergency and health care agency sites Clinical experiences with patients of all age groups and medical/traumatic conditions is continued. Data recording of skill competencies on web based computer system is required. Health and Liability insurance required. Prerequisite: EMS2634 EMS2634L EMS2635 EMS2642 EMS2652 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 72 Fees = 50.45

EMS2650 PARAMEDIC SCIENCE I FIELD (1) First of four field courses dealing with the application of didactic material in the rescue field. Provides for directed, supervised experiences on EMS Advanced Life Support (ALS) vehicles. Emphasis on clinical activities and observations related to the US Department of Transportation (DOT), National Paramedic Curriculum, Module 1 and 8. Activities limited to practice of basic life support skills, assisting as a member of the EMS team and observation of paramedic level skills and activities. Documentation of patient care observations and patient care experiences using web based data collection system is required. Student health, accident and liability insurance is required. Prerequisite: EMS2010 EMS2631 EMS2631L Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 58 Fees = 50.45

EMS2651 PARAMEDIC SCIENCE II FIELD (3) Second of four field courses that provides for directed, supervised experiences on EMS Advanced Life Support (ALS) vehicles. Emphasis on clinical activities related to physical assessment with emphasis on patients with Cardio-Respiratory problems. Invasive procedures for IV therapy and medication administration are introduced. Data recording of skill competencies on web based computer system is required. Health and Liability insurance required. Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 84 Fees = 50.45

EMS2652 PARAMEDIC SCIENCE III FIELD (3) Third of four field courses stressing continuation of Advanced Life Support Skills for the Paramedic student. Provides for directed, supervised experiences on Advanced Life Support (ALS) vehicles. Emphasis on clinical activities related to trauma care, medical emergencies, obstetrics, pediatrics, geriatrics and specialty areas. Health and Liability insurance required. Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 84 Fees = 50.45

EMS2653 PARAMEDIC SCIENCE IV FIELD INTERNSH (4) Final field course where student serves as team leader on EMS calls under supervision of EMS agency preceptor. Provides for directed, supervised experiences on Advanced Life Support (ALS) vehicles with increasing responsibility for the management of the EMS response. Health and Liability insurance required. Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2650 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 96 Fees = 50.45

EMS2850 PARAMEDIC CURRICULUM BRIDGE (4) This course provides a bridge for the 1998 DOT Paramedic Curriculum. Topics include emergency care coverage for heart attack and stroke victims, enhanced 12 lead interpretation, use of thrombolytics, and inclusion/exclusion criteria for thrombolytic therapy. In addition, this course includes a number

Broward Community College Catalog 2006-2007 www.broward.edu 247
of sections not covered or briefly covered in 1985 DOT National Paramedic Curriculum. These specific topics include the well being of the paramedic, injury prevention, therapeutic communications, life-span development, general principles of pathophysiology, clinical decision making, hematology, abuse and neglect, patients with special challenges, acute interventions for the home, health-care, assessment based management, and crime scene awareness. Material included by 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 1, Units 2,3,6,9, and 10, Module 3, Unit 4, Module 5, Units 2 and 9,

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ENC0010 COLLEGE PREPARATORY WRITING SKILLS (4)
An overview of the fundamentals of grammar, mechanics, usage, sentence structure, and paragraph development. With a “D” or an “F”, a student must repeat the course. Credit for this course may not be used to meet degree requirements. Students must complete the 16-hour lab requirement to receive credit for ENC0010.
Corequisite: ENC0010L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ENC0010L COLLEGE PREPARATORY WRITING SKILLS (0)
A laboratory component that will supplement classroom instruction in ENC0010. Instruction focuses on the individual needs of the student. Students will have individualized prescriptions depending on the results of the diagnostic test and must complete the 16-hour lab requirement to receive credit in ENC0010.
Pre or Corequisite: ENC0010
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 25.00

ENC0021 COLLEGE PREPARATORY WRITING SKILLS (4)
A refinement of grammatical, mechanical, and usage principles including an overview of the strategies of paragraph and essay development. With a “D” or an “F”, a student must repeat the course. Credit for this course may not be used to meet degree requirements. Students must complete the 16-hour lab requirement to receive credit in ENC0021.
Corequisite: ENC0021L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ENC0021L COLLEGE PREPARATORY WRITING SKILLS (0)
A laboratory component that will supplement classroom instruction in ENC0021. Instruction focuses on the individual needs of the student. Students will have individualized prescriptions depending on the results of the diagnostic test and must complete the 16-hour lab requirement to receive credit in ENC0021.
Pre or Corequisite: ENC0021
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 25.00

ENC0085 INTEGRATED GRAMMAR & WRITING SKILLS (8)
An integrated grammar and writing skills course for students wishing to complete both two-track college preparatory courses in one semester. Course provides an overview of grammar, mechanics, usage, and paragraph development as well as the refinement of those skills and the writing of multi-paragraph essays. Students who earn a “D” may enroll in ENC0085. Students who receive an “F” must enroll in ENC0005. Students must complete the lab requirement to receive credit in ENC0085. Credit for this course may not be used to meet degree requirements.
Pre or Corequisite: ENC0085L
Lec Hrs = 96 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ENC0085L INTEGRATED GRAMMAR AND WRITING SKILLS (0)
A laboratory course that supplements classroom instruction in ENC0085. This course must be taken concurrently with ENC0085. The writing lab hours must be completed in order to receive credit for the class.
ENL2022 BRITISH LITERATURE (3)
A study of man's relationship to the natural environment, the increasing sense of social responsibility, the liberated woman, the continuing intellectual revolution, and the origins of current social and economic problems in British literature of the nineteenth and twentieth centuries. Includes such writers as the romantic poets and Tennyson, Browning, Hardy, Yeats, Shaw, Eliot, and Thomas. Critical analysis required. Meets Areas 2A and 8 general education requirements for the A.A. degree. Meets Area 2 or 5 general education requirements for the A.S. degree. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ENL2330 INTRODUCTION TO SHAKESPEARE (3)
A study of the background and texts of Shakespeare's sonnets and plays. Shakespeare's life and the period of time in which he lived, and the structure and content of various Shakespearean plays. Meets Areas 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.A.S./A.S. degree. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ESC1000 EARTH SCIENCE (3)
An integration of the three classic disciplines of the earth sciences, geology, meteorology, and oceanography, and man's place in the universe. Course will focus on the basic principles governing these disciplines, and the effect of each on man. Meets Areas 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Terms I, II, and III. Placement by Testing Department. Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ESC1000L EARTH SCIENCE LABORATORY (1)
Laboratory Methods for Earth Science. Meets area 4C general education requirements for the A.A. Degree. Meets the 4 or 5 general education requirements for the A.S. Degree. One, two-hour laboratory weekly. Special fee is charged. Placement by Testing Department or Pre or Corequisite: ESC1000
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 20.00

ESC1002 EARTH SCIENCE FOR TEACHERS (3)
Study of the earth sciences at an introductory level with emphasis on topics taught in primary and secondary schools. Earth sciences of the local region as well as their important influence on life and man's activities are discussed. This course is designed specifically for teachers. This course will not satisfy the general education requirements for the A.A. degree. Placement by Testing Department or Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

EST2224C FIBER OPTIC COMMUNICATIONS (3)
The study of fiber optic communication systems and devices. Topics include electronic and optical devices, splices and fiber optic cables as well as telecommunications applications of fiber optic systems. Extensive lab experience. Prerequisite: EET2142C
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 0.00

EST2436C ADVANCED BIOMEDICAL INSTRUMENTATION I (3)
This course is intended to inform students about the theory and operation of instrumentation employed in the medical imaging field such as x-ray machines, CT scanners, Ultrasound, Nuclear Medicine and MRI. Prerequisite: EST2436C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 24.00

EST2940 BIOMEDICAL ENGINEERING TECHNOLOGY I (4)
The student will participate in a 13 weeks internship, 24 hours per week at a cooperating hospital. Topics will include orientation, orientation to biomedical engineering, medical instrumentation theory, safety standards, "hands-on" preventive maintenance procedures and equipment repair activities. The hospital biomedical engineering staff will directly supervise all aspects of this course. Prerequisite: CET1123C EET2142C HSC1531
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 20.95

EST2438C ADVANCED BIOMEDICAL INSTRUMENTATION II (3)
Students will acquire proficiency in biomedical equipment maintenance through classroom and laboratory environment and will gain familiarity with and learn to evaluate, troubleshoot, test, and repair various types of biomedical equipment. Students will also learn to function in a hospital environment through an internship in the biomedical department of a participating hospital or biomedical equipment company. Prerequisite: CET1123C EET2142C HSC1531
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

ETC1250C MATERIALS AND PROCESS (3)
Introduces the materials and process commonly used in building construction. Provides background relating to physical properties, sources and costs. Includes a study of standard manufacturing processes and recent methods of application; and ASTM procedures for testing concrete and steel, soils, and other building materials.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

ETC2450 STRUCTURAL DESIGN (3)
Simplified design of reinforced concrete structures including beams, columns, footings, retaining walls and pile foundations. Classification of soils and interpretation of borings from the standard penetration test. Prerequisite: ETD2530 or equivalent.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ETD1320 BASIC CAD (3)
First course in computer aided design (CAD), lab work using AutoCAD software. Topics include fundamentals of DOS, AutoCAD command structure, setting units and limits, drafting primitives, layering, use of editing tools, grid, snap, and axis commands. Assignments requiring extensive use of the CAD lab. Extra lab hours are available.
Lec Hrs = 16 Lab Hrs = 48 Oth Hrs = 0 Fees = 50.00

ETD2331C AUTOLISP PROGRAMMING (3)
This course will teach students to use AutoCAD's embedded programming language, AutoLISP. Emphasis will be placed on production of small time saving programs to enhance AutoCAD's drafting capabilities. Students will learn proper programming and debugging techniques. Prerequisite: ETD1320 ETD2350C
Lec Hrs = 16 Lab Hrs = 48 Oth Hrs = 0 Fees = 0.00

ETD3500 ADVANCED CAD (3)
Additional topics in AutoCAD. These include blocks, move and copy, array, mirror, text, text styles, 3D and isometric modes. The development of macro operations. As in basic CAD, extra lab hours are available. Prerequisite: ETD3500
Lec Hrs = 16 Lab Hrs = 48 Oth Hrs = 0 Fees = 0.00

ETG2530 STRENGTH OF MATERIALS (2)
A study of statics and strength of materials without the use of advanced mathematics. Introduction to solving problems using an electronic calculator. Should be taken concurrently with ETG2530L.
Prerequisites: MTB1321, MTB1322, PHY1001 or instructor approval.
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
ETG2530L STRENGTH OF MATERIALS LAB (1)
Laboratory sessions emphasize typical solution of problems applied to structural engineering with the help of computers. This course should be taken concurrently with ETG2530.
Prerequisites: MTB1321, MTB1322, PHY1001 or instructor's approval.
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

EUH1000 WESTERN CIVILIZATION (3)
A historical survey of Western culture from its roots in the ancient Near East to the beginning of the modern period in the 17th century. The approach is that of social history which examines the socio-economic, intellectual, political and other cultural forces which have shaped Western civilization. May also be taken for honors credit. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EUH2032 HISTORY OF THE HOLOCAUST (3)
An examination of the historical origins, execution, and consequences of the Holocaust. Meets Area 3A or 6 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EUH2052 HISTORY OF SPAIN (3)
This course will examine Spain's historical development from prehistoric times to the present. Special attention will be paid to the impact of important historical events such as the Enlightenment, the Napoleonic Wars, the fall of absolute monarchy, the several military uprisings during the nineteenth and twentieth centuries, and industrialization and technological innovations in an era that saw Europe achieve and then lose world hegemony. May also be taken for honors credit.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EV1R1009 ENVIRONMENTAL SCIENCE (3)
Study of the physical environment, its relationship with the biosphere, and man's impact upon natural systems. Meets Area 4A or 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Prerequisite: MAT0024
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EV1R1858 ENVIRONMENTAL REGULATION (3)
This course deals with the purpose of federal, state, and local environmental law and its impact on South Florida and the larger world community. Reason for protection of the environment, compliance with legislation, and the concept of due diligence are emphasized. Extensive use of the case studies approach will be used to illustrate the application of law. Placement by Testing Department.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EV1R1858L ENVIRONMENTAL REGULATIONS II LAB (1)
This course will provide environmental technologists in the hazardous materials area with an actual or simulated experience in applying the regulations and compliance methods specific to their area. Topic to be covered will include OSHA, DOT, RCRA, CERCLA, TSCA, FIFRA, EPA, superfund, and clean air, land and water issues. Placement by Testing Department or Prerequisite: EVR1858
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EVR2805 HAZARDOUS MATERIALS TOXICOLOGY (3)
This course will provide hazardous materials technicians with an understanding of potential health effects which may result from exposure to various hazardous materials. Topics to be covered will include biological interactions with toxic substances, metabolism of toxic substances, genetic toxicology, systemic toxicology, toxic agents, environmental toxicology, radiation health effects and common chemical hazards. Placement by Testing Department or Prerequisite: BSC1005 CHM1025
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EVR2930 ENVIRONMENTAL SCIENCE SEMINAR (1)
Selected current topics in environmental science and related subjects. Placement by Testing Department.
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EVR2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Pre-requisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Placement by Testing Department.
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EV1S1671 HAZARDOUS MATERIALS RECOVERY AND DISPOSAL (3)
This course is designed to explain the methods of recovery, incineration and/or disposal of hazardous waste. Topics include contracting with qualified disposal organizations, obtaining permits and ensuring regulatory compliance of hazardous waste. Field trips required.
Prerequisite: CHM1025 EVR1858
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

EV1S1802 INDUSTRIAL WASTE STREAMS (4)
This course will familiarize the student with common categories of industrial process facilities. Using the techniques developed in this course, the student will become familiar with a variety of industrial processes. The student should gain an appreciation for how to reduce the hazardous material waste stream. Field trips required. Instructor permission or Prerequisite: CHM1025 CHM1025L
Lec Hrs = 64  Lab Hrs = 8  Oth Hrs = 0  Fees = 0.00

EV1S2005 WATER SUPPLY AND WASTE WATER DISPOSAL (3)
A single course covering the sources, treatment and distribution of potable water and the collection, treatment and disposal of wastewater. Field trips include inspection of local facilities.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00
EVS2893C ENVIRONMENTAL SAMPLING AND ANALYSIS
(5)
This course provides an introduction to EPA and DEP-approved methods for the collection and analysis of environmental samples. The laboratory is integrated with class theory. Topics include: sampling of water, soils, sediments and hazardous waste; application of field and laboratory-based analytical methods; documentation procedures; method validation including generation of precision, accuracy, and detection limits; writing comprehensive and project-specific quality assurance plans.
Prerequisite: CHM1025 CHM1025L
Lec Hrs = 48  Lab Hrs = 64  Oth Hrs = 0  Fees = 20.00

FFP1000 INTRODUCTION TO FIRE SCIENCE  (3)
This introductory course will examine the evolution of the modern fire department, chemistry and physics of fire, fire hazard properties of materials; combustion; theory of fire control; importance of fire protection; public fire defenses; and other materials pertinent to fire service. 48 hours independent study. Any student who satisfactorily completed the state standard certification requirements will automatically be awarded 3 semester hours in lieu of introduction to fire science.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP1120 FIRE PROTECTION THROUGH BUILDING CODE  (3)
Course examines objectives and criteria of South Florida building code requirements for various types of occupancies, classification by types of construction, building materials, fire resistant standards, egress, permits, inspections, and standards, and other pertinent material for building construction.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP1505 FIRE PREVENTION THEORY AND APPLICATION  (3)
Fundamentals of fire prevention are introduced with examination of fire causes and effects. The function of fire prevention bureaus, enabling legislation regulations and standards are discussed. Additional areas of study include the inspection process, fire code enforcement, local decisions, fire investigations, records and reports.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP1510 CODES AND STANDARDS  (3)
Review of specific requirements of codes and standards that have a direct influence on life safety in both new and existing structures. Study includes discussion on the requirements for property protection.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP1540 FIRE PROTECTION AND DETECTION SYSTEM  (3)
This course examines requirements for and testing of fire sprinkler and standpipe systems, chemical systems, detection and alarm systems.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP1780 FIRE ADMINISTRATION I  (3)
An introduction into managing fire services and community fire protection programs. Relationships between the insurance industry, the professional community, contemporary management and planning concepts are analyzed.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP1810 FIREFIGHTING TACTICS AND STRATEGY  (3)
A study of tactical considerations and strategic options employed in the extinguishment of fires; pre-planning and company level field operations will be analyzed with application of course concepts. 3 hrs. lec.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2111 FIRE CHEMISTRY  (3)
Study of the physical and chemical properties of matter, with a particular emphasis on hazardous materials, hydrocarbons, oxidation-reduction chemistry, and residuals of pyrolysis. Topics covered include atomic structure, the periodic table, chemical bonding, chemical measurement, stoichiometry, and the study of chemical properties according to group, class, and reactivity. Sample collection and analysis is included as a practical component of the course. Prerequisite: Municipal Fire Inspector Certification.
Lec Hrs = 48  Lab Hrs = 8  Oth Hrs = 0  Fees = 0.00

FFP2301 FIRE HYDRAULICS  (3)
Study of the physical properties of water used in fire protection. Basic hydraulic measuring units, facts, theories and formulas for problem solving.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2302 FIRE APPARATUS AND PROCEDURES  (3)
Course offers study in evolution of fire apparatus; apparatus construction; pumps and pump accessories; pumping procedures; pump tests; trouble shooting; aerial ladders; aerial platforms; maintenance; driving fire apparatus.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2401 HAZARDOUS MATERIALS I  (3)
Study of hazardous chemicals and processes including storage and transportation, mitigation, fire fighting, and review of Federal, state and local laws pertaining to hazardous materials.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2501 HAZARDOUS MATERIALS II  (3)
A continuation and expansion of FFP2500 to include radioactive materials, corrosives, pesticides, rocket propellants, and other related materials.
Prerequisite: FFP2401
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2521 CONSTRUCTION AND PLANS EXAMINATION  (3)
Students will review actual building plans and apply codes, standards and inspection techniques, to find errors and omissions, students shall make appropriate corrections according to the code, and with preferences identified.
Lec Hrs = 45  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2604 ORIGIN & CAUSE  (3)
A study of the arson and investigation problems examining facts and figures, motives and the role of fire department in arson suppression. Reviewing chemistry of explosions. Analyzing the juvenile arson problem. Analysis of urban fires, automobile fires, and reports, interrogation and presenting the arson case in the courtroom.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FFP2630 LATENT INVESTIGATION  (3)
Study of proper crime scene/fire scene investigation including conduct of appropriate documentation, collection and preservation of evidence, and the qualitative analysis of data to determine whether or not prosecution for the crime of arson is indicated. Special situations/ problems will be examined including the use of explosives, and hazardous materials. Arson for profit will be discussed with a distinction made between civil and criminal situations. Pre-requisite: must be Fire Inspector or Police Officer certified.
Prerequisite: FFP1120 FFP1505 FFP1510 FFP1540 FFP2521
Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 0.00

FFP2670 LEGAL ISSUES IN FIRE INVESTIGATIONS  (3)
Study of the applicable laws and attending legal considerations associated with the successful prosecution of arson cases. Specific areas of concentration include witness statements, interviews, interrogations, depositions, and written reports. Expert qualification and effective courtroom testimony will be examined and evaluated. Distinctions will be discussed between civil and criminal situations. Students will be required to prepare a case for prosecution from evidence gathered for use in class, and present their testimony in a mock trial activity.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00
FIN2050 FINANCE OF INTERNATIONAL TRADE (3)
This course provides a general survey of international trade. Topics studied include transportation modes, cargo insurance and the various special terms of sale used in overseas transactions. Also covered are import/export, foreign exchange, pricing and quotations; import/export documentation and procedures; documentary credits, international payments and collections; bank financing sources for international trade and alternative financing techniques.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FOS2201 FOOD SERVICE SANITATION & SAFETY (3)
This course provides the student with the basic concepts of food microbiology and food borne diseases. Standards enforced by food regulatory agencies will be identified. All information will lead to the application of measures to prevent food borne illness. This course includes a comprehensive exam leading to national certification.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FRE1000 ELEMENTARY FRENCH CONVERSATION (3)
A custom made course for those residents in the community who require a cursory knowledge of French to help them communicate with French speaking people. One hour language laboratory weekly. Meets Area 8 general education requirement for the A.A. degree. Special fee charged.
Lec Hrs = 48  Lab Hrs = 16  Oth Hrs = 0  Fees = 15.00

FRE1120 BEGINNING FRENCH I (4)
Fundamentals of speaking, understanding, reading and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with FRE1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

FRE1121 BEGINNING FRENCH II (4)
Continuation of FRE1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: FRE1120
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

FRE1170 FRENCH STUDY TRAVEL (3)
A course designed for students who wish to combine the study of French with subsequent travel to a French speaking region. Prerequisite: FRE1120 or FRE1000 or instructor's approval. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: FRE1120
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FRE2201 INTERMEDIATE FRENCH II (3)
Emphasis on composition, comprehension and conversation. Interesting tour through French history, geography and literature. Aim of course to give student a necessary background in the culture of France and to achieve fluency in oral and written expression. This course completes intermediate year. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meet Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: FRE2220
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

FRE2220 INTERMEDIATE FRENCH I (4)
Review of most salient grammatical principles plus introduction of grammatical and idiomatic material. Composition and
readings in new French prose. Conversation at an easy and enjoyable pace. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: FRE1121
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

**GEA2000 WORLD GEOGRAPHY (3)**
A study of geographical characteristics, area relationships, and major problems of the world's component regions. The underlying theme is to explain how and why geographic factors create global contrasts. Special emphasis will be placed on how the world has become more interdependent as complex economic systems have evolved with regional specialization. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**GEA2030 GEOGRAPHY OF THE EASTERN WORLD (3)**
A regional survey of the human/cultural and physical/environmental aspects of the non-western world including the following regions: North Africa & SW Asia, Sub-Saharan Africa, South Asia, Southeast Asia, East Asia, and the Pacific Island Realm. The characteristics and special problems of each region will be analyzed from a geographical perspective in order to understand global diversity and the forces and issues that help shape the world.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**GEA2040 GEOGRAPHY OF THE WESTERN WORLD (3)**
A regional survey of the human/cultural and physical/environmental aspects of the western world including the following regions: Europe, Russia and the C.I.S., Anglo America, Middle America, South America, and Australia. The characteristics and special problems of each region will be analyzed from a geographical perspective in order to understand global diversity and the forces and issues that help shape the world.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

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**GEA2430 BUSINESS ETHICS (1)**
A brief practical approach to recognizing, understanding and solving ethical problems confronting today's business people and organizations. Review the historical development of ethics, examine a variety of ethical dilemmas, and practice resolving them through ethical reasoning. Address reference to statutory and professional codes. Stress logical, responsible decision-making; address individual, organizational and societal needs. 1 hour weekly; or 5-week sessions, 3 hours weekly, 1 hour elective.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**GEA2949 CO OP WORK EXPERIENCE (3)**
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course projects related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

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**Course Descriptions**

Broward Community College

Catalog 2006-2007

www.broward.edu 253
projects. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GEO2200 PHYSICAL GEOGRAPHY (3)
This course serves as an introduction to the manner in which natural systems function at global and regional scales. The course uses a geographical perspective to analyze landforms, climate, the water cycle, and the biosphere, examining spatial relationships and regional variations and addressing spatial patterns of human activity as related to environmental phenomenon.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GEO2370 CONSERVATION OF NATURAL RESOURCES (3)
A survey of the use and mismanagement of natural resources within the environment, including problems of development, pollution, biotic system, population, resource depletion, and technology. Meets Areas 3A and 6 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GEO2420 INTRODUCTION TO HUMAN / CULTURAL GEOGRAPHY (3)
This course will introduce students to geographical concepts as applied in human/cultural issues and problems of the world today. Emphasis will be placed on tensions between globalization and ethnic diversity. The systematic approach will offer theories and techniques developed by geographers that assist in understanding both human/cultural interaction and human/environmental interaction.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GER1000 ELEMENTARY GERMAN CONVERSATION (3)
A custom made course for those residents in the community who require a cursory knowledge of German to help them communicate with German speaking people. One hour language laboratory weekly. Special fee charged. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 15.00

GER1120 BEGINNING GERMAN I (4)
Fundamentals of speaking, understanding, reading and writing. Classroom practice and exercises supplemented by language and laboratory sessions. Designed to develop confidence and proficiency. Students expected to continue with GER1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

GER1121 BEGINNING GERMAN II (4)
Continuation of GER1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Prerequisite: GER1120
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

GER1170 GERMAN STUDY TRAVEL (3)
A course designed for students who wish to combine the study of German with subsequent travel to a German speaking region. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: GER1120
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GER2201 INTERMEDIATE GERMAN II (3)
Emphasis on composition and comprehension and conversation. Interesting tour through German history, geography, and literature. Aim of course is to give student a necessary background in the culture of Germany and to achieve fluency in oral and written expression. This course completes intermediate year. Prerequisite: GER2220 or equivalent. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GER2220 INTERMEDIATE GERMAN I (4)
Review of most salient grammatical principles plus introduction to more complex grammatical and idiomatic material. Composition and readings in German prose. Conversation at an easy and enjoyable pace. Meets Area 2B and 8 general education requirements for the A.A. degree. Meets Area 2 or 5 general education requirements for the A.S. degree.
Prerequisite: GER1121
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

GIS1030 REMOTE SENSING AND APPLICATIONS (3)
This course introduces basic concepts and fundamentals of remote sensing, image processing, and the global positioning system (GPS). The principles and processes involved in airphoto interpretation will be reviewed and examined. Image processing techniques will be reviewed from practical and mathematical points of view. The course is intended to provide the student with the background information necessary to successfully use remotely sensed imagery and GPS in conjunction with GIS technology. Prerequisite: Knowledge of Windows operating system.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 8.00

GIS1040C INTRODUCTION TO GEOGRAPHIC INFO (3)
The intent of this course is to provide the student with a detailed introduction in geographic information systems (GIS) and support this information with laboratory activities. The course will cover all working knowledge of the theory aspects of geographic information systems including data collection, preprocessing, data management and data analysis as well as an introduction to the application of these systems. Prerequisite: Knowledge of Windows operating system.
Lec Hrs = 48 Lab Hrs = 32 Oth Hrs = 0 Fees = 16.00

GIS1042C INTRODUCTION TO GEOGRAPHIC INFO (3)
This course will build upon the student's fundamental knowledge of GIS gained in the prerequisite course titled "Introduction to Geographic Information System I". The student will learn how to implement geographic concepts in GIS systems. The course will provide the student with the fundamental of computing and information science systems and cartography. It will introduce the student to the theory and practice of computer-aided cartography. In addition, the student will delve more deeply into data representation, manipulation and presentation.
Prerequisite: GIS1040C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 16.00

GIS1047C APPLICATIONS OF GEOGRAPHIC INFO (3)
A combined lecture and laboratory course in which students will draw upon the principles learned in GIS I and GIS II to increase/refine skills and apply them to individual and/or group projects.
Prerequisite: GIS1040C GIS1042C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 32.00

GLY1010 PHYSICAL GEOLOGY (3)
Study of geologic agents, minerals, rocks, structure, and land forms. The effects of geologic events upon life and human relations are discussed. Students registering in GLY1010 are strongly urged to register in the companion lab GLY1010L. Some senior institutions require a 4 credit geology course. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GLY1101 PHYSICAL GEOLOGY LABORATORY (1)
Study of common rocks and minerals including their classification and origin and the interpretation of landforms...
through the study of geologic maps. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. One two hour laboratory weekly. Special fee is charged. Placement by Testing Department.

Lec Hrs = 0      Lab Hrs = 32      Oth Hrs = 0      Fees = 7.00

GLY1100 HISTORICAL GEOLOGY (3)
An earth systems study of the origin and evolution of the earth and the history of life on our planet. The course encompasses the causes and effects of mass extinction on the history of life, and the role of plate tectonics on the geologic and biologic evolution of earth. Field trips are optional. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department.

Lec Hrs = 48      Lab Hrs = 0      Oth Hrs = 0      Fees = 0.00

GLY1100L HISTORICAL GEOLOGY LAB (1)
One two-hour session per week. Experimental topics include fossils, paleogeography, rock correlation, and interpretation of geologic maps as related to the lectures. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or

Lec Hrs = 0      Lab Hrs = 32      Oth Hrs = 0      Fees = 5.00

GRA1120C PUBLICATION DESIGN (3)
This course introduces the student to principles governing page layout and the design of publications. The industry standard software will be used for the production of professional looking publications which may include magazines, newsletters, catalogs, newspapers, books, or annual reports. Topics covered include the basic principles of effective typography; the use of grids; integration of graphics and photos into publications; basic information design principles, working with spot, process color and separations, principles of page assembly and other methodologies to design and produce a variety of single- and multi-page publications.

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 0.00

GRA1131C APPLIED GRAPHIC DESIGN FOR MULTIMEDIA (3)
This course will give the student an introduction to graphic design for computer screens. Students will use digital image editing software to create effective computer screen design elements. Color theory and visual communication is introduced emphasizing color as it relates to non-print display, coloration, pixel properties, light mixing, additive vs. subtractive color theory. Digital image editing activities include selecting and creating shapes, and using painting techniques.

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 50.00

GRA1151C DIGITAL ILLUSTRATION (3)
This course addresses the concepts and techniques necessary to create computer-generated illustrations for use in print, web and multimedia applications. Students will work with software packages utilized by professional designers. Assignments include the creation of technical illustrations, business graphics (charts, maps, tables, and diagrams) and art for other applications. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 65.00

GRA1201C DIGITAL TYPOGRAPHY (3)
This course is an introduction to computerized typography. The emphasis is on the visual effects of type as a design and communication element. Students will form an understanding of the fundamental rules related to type design, such as kerning and leading. The primary focus of the instruction will be in how type is used in contemporary graphic design applications, but some practice in hand lettering will be included as well as a study of the how various type styles are designed. Also included is a study of font management, postscript, and handling of digital files. Students will solve a variety of problems commonly encountered in the production of a body of type for both print and electronic output.

Prerequisite: GRA1151C

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 65.00

GRA1721C WEB PROGRAMMING (3)
The student will learn the basics of creating a web site and will progress through the processes of analysis, design, development and implementation of complete web sites using HTML language with the text editors and WYSIWYG web editors. This course includes: introduction to the WWW, Web Programming with HTML, layout and structure of web sites, hyperlinks, multimedia, forms, frames, testing, maintenance and uploading web sites to servers.

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 25.00

GRA2134C ADVANCED MULTIMEDIA ANIMATION (3)
Continuation of Multimedia Animation to create advanced 2-dimensional animations with Lingo scripting (or other language) to be included in multimedia applications. Students learn advanced techniques which include the following: programming concepts in Lingo (or other language), improved hypertext and buttons, using lists and properties, file input and output, debugging, creating object-oriented movies in window programming, creating scrolling graphic and text, menu bars and custom cursors, controlling digital video and MIDI, creating games, and understanding Xtras and NetLingo and Shocking files for Internet use. Students will create advanced animations using scripts for output to kiosks, games, CDs, and the Internet.

Prerequisite: GRA2160C

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 65.00

GRA2142C WEB DESIGN (3)
Intended for Art/Graphic Design majors who will apply sound design principles toward delivering images for the world wide web. The student will develop an understanding of how the internet is used by commerce, how it functions in the marketplace, and how Graphic Designers apply their skills to a digital media. The student will create web pages/sites, coordinate web structures, and learn basic web-site management techniques.

Prerequisite: ART1201C ART1300C GRA2190C

Lec Hrs = 0      Lab Hrs = 96      Oth Hrs = 0      Fees = 50.00

GRA2143C WEB PUBLISHING II (3)
This is an advanced graphics design course in designing web pages. Student will learn to create web pages using HTML focusing on interactivity and usability. Students will work with text, links, color, and images for Internet delivery. Students will also learn and use related technology: JavaScirp and Cascading Style Sheets. The class is portfolio driven.

Prerequisite: GRA2841C

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 65.00

GRA2152C ADVANCED DIGITAL IMAGE DESIGN (3)
This is an advanced level course where students will solve complex digital imaging, illustration and compositing problems that require both 2D and 3D special affects. Students will be introduced to the fundamentals of creating and animating 3D images using 3D animation and modeling software packages, including creating objects, building models, animating, creating a scene, applying textures and paint, setting lights and cameras and rendering the final animation. Projects will satisfy the current industry client base which demands that a graphic artist conceive a given graphic idea which can be produced in a variety of print outputs, as well as output for the Web, TV and multimedia.

Prerequisite: GRA1151C PGY1801C

Lec Hrs = 32      Lab Hrs = 32      Oth Hrs = 0      Fees = 65.00
GRA2160C MULTIMEDIA ANIMATION (3)
Create 2-dimensional animations to be included in multimedia titles. Students learn the windows in the software; how objects can create the illusion of movement; how to auto-animate text; how to coordinate movement, placement, and timing of objects; how to add sound to animation; how to create an animation of a live object, backgrounds, and basic interactions. Students are introduced to a scripting language to coordinate flow of information.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

GRA2161C ADVANCED IMAGE EDITING (3)
The student will learn the advanced image processing techniques to prepare images for various output venues for web and multimedia. Multimedia and web developers use sophisticated graphic software (Fireworks and Photoshop with ImageReady or other similar software) to create interactive and stunning visuals that are easily integrated into dynamic multimedia and web pages. Students will learn how to create graphics with vector and bitmap images, apply special effects, build buttons, rollovers, animated gifs, image maps, compare graphic formats, optimize web graphics & palettes. Projects focus on resolution, color management including palettes and bit depth, optimization, image and texture creation, alpha channels for compositing, and special effects. Industry standard software will be used including Photoshop and Fireworks.
Prerequisite: GRA1131C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

GRA2162C INTRODUCTION TO 3D ANIMATION (3)
This course is an introductory level course in 3D animation. Students create complex animations which are carefully planned through storyboarding and cinematic techniques. Students will complete 3D animation projects and follow the 3D animation workflow. Multimedia and web developers use 3D software (and/or other data-driven applications) to visually create and edit data-driven Web sites for multiple platforms.
Prerequisite: GRA2171C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 65.00

GRA2171C ADVERTISING AND PROMOTIONAL DESIGN (3)
This course will introduce advertising and marketing principles. Students will apply design and technical skills introduced in foundation level classes. The focus will be on solving real-world advertising and promotional problems, carrying projects from initial concept to final presentation of the product. Projects will satisfy the current industry client base which demands that a graphic artist conceive a given graphic idea for production in a variety of print outputs, as well as output for the Web, TV and multimedia. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.
Prerequisite: GRA1151C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 65.00

GRA2181C GRAPHIC DESIGN PORTFOLIO (2)
This course is designed to develop students’ strategies for portfolio presentations to employers and clients, demonstrating their critical analysis skills, technical ability and visual expertise. Students will assemble and evaluate their work in order to develop professional graphic design portfolios. Students will also learn to develop alternate visual strategies as they apply to portfolio requirements set by industry standards. Industry will be consulted on a periodic basis to assist in the identification of portfolio requirements.
Prerequisite: GRA2152C
Lec Hrs = 24 Lab Hrs = 24 Oth Hrs = 0 Fees = 25.00

GRA2185C ART DIRECTION AND FINAL PRODUCTION (3)
This course is an advanced level course that forms an integral part of the final skills needed to complete the Graphic Design Technology A.S. Degree requirements. It is intended to support the portfolio and internship courses by providing practice in advanced concept formulation and art direction strategies and practical experience in production of their portfolio at a service bureau.
Prerequisite: GRA1120C GRA1151C PGY1801C
Corequisite: GRA2181C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

GRA2190C INTRODUCTION TO GRAPHIC DESIGN (4)
This course is an introduction to the materials, techniques and production methods used in the Graphic Arts, pointing out how various layout techniques lead to a printed piece. Intended for Art majors who wish to pursue a BFA degree in Graphic Design.
Prerequisite: ART1201C ART1300C
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

GRA2191C GRAPHIC DESIGN II (4)
Production studio techniques for graphic design, featuring preparation of art for reproduction using the computer as a graphic problem-solving tool, combining test, image, and digital design. Intended for art majors who wish to pursue a BFA degree in Graphic Design or want to seek entry employment.
Prerequisite: GRA2190C
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 0.00

GRA2403 PRINCIPLES OF PROJECT MANAGEMENT (3)
Students in this course will gain a comprehensive understanding of the skills required of project managers. This includes software presentation, training, instruction in monitoring and controlling projects, procurement planning techniques, and an introduction to using project management software.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

GRA2404C PRINCIPLES OF PROJECT MANAGEMENT II (3)
Students in this course will gain a comprehensive understanding of the use of project management software to: organize a project, schedule milestones, schedule tasks in the appropriate sequences, assign resources and costs to tasks, prepare professional reports, and track/analyze a project's progress.
Prerequisite: GRA2403
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

GRA2723C ADVANCED WEB SITE DESIGN (3)
This course allows developers, programmers, and designers to visually create and edit data-driven Web sites for multiple server platforms. Developers will use industry standard software (and/or other data-driven applications) to conceptualize and develop dynamic Web sites. Students should have complete knowledge of graphics, HTML and database management before taking this course.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

GRA2724C ADVANCED WEB ANIMATION (3)
This course will teach students to write ActionScript that can be executed on any computer running compatible software. These programs will be created using Object-Based Scripting language and designed to interact over the internet or by other similar network with an appropriate Web Browser. Students will learn ActionScript structure and syntax, how to interact with environment variables, use event handlers, functions, and methods and receive an overview of working with Object-Oriented methodologies. Students will conceptualize and develop interactive websites and games using the full features of ActionScript.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 50.00

GRA2841C WEB PUBLISHING (3)
This course is a basic course in designing web pages, web site architecture and navigation. Students will be instructed in the most current applications used for production of web pages. Proper coding of the pages using current web tools, with consideration of various platforms, will be provided. A special emphasis will be placed on interactivity design and page layout, and proper use of typography and images for delivery on the
Internet. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.

Prerequisite: PGY1801C  
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 65.00

**GRA2940C GRAPHIC DESIGN INTERNSHIP**  (3)

This course is a culmination of the Graphic Design Technology two year A.S. Program. Students will learn the necessary business protocol and job interviewing skills that will place them in an internship situation. The intern will work in a studio setting, e.g., advertising agency, graphic design department of a small or large company, commercial printing business, etc. The experience will involve all duties usually associated with the current graphic design profession. Interns are expected to complete project assignments from start to finish with minimal guidance from the sponsoring entity/establishment.

Prerequisite: GRA2152C GRA2181C  
Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 45.00

**HBR1120 BEGINNING HEBREW I**  (4)

Fundamental of speaking and understanding reading and writing. Classroom practice and exercises supplemented by language and laboratory sessions designed to develop confidence and a basic proficiency in Modern Hebrew. Student is expected to continue with HBR1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.

Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

**HBR1121 BEGINNING HEBREW II**  (4)

Continuation of Hebrew 1120. Further development of the basic skills. Selected readings in the textbook. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.

Prerequisite: HBR1120  
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

**HBR2201 INTERMEDIATE HEBREW II**  (3)

Review of all basic grammar principles. Emphasis on relative fluency in speaking. Comprehensive reading and writing skills sharpened. Limited cultural and historical information studied in the target language. This course completes the intermediate college level course in modern Hebrew. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.

Prerequisite: HBR2220  
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HBR2220 INTERMEDIATE HEBREW I**  (4)

Continuation in the instruction of the most salient grammatical principles plus introduction of new idiomatic material. Writings and selected readings in Modern Hebrew prose. Conversation at a more advanced level and pace. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.

Prerequisite: HBR1121  
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

**HCP0110C BASIC NURSING I NURSING ASSISTANT**  (4)

This course is designed to prepare the student for employment as a nursing assistant. The student will perform basic nursing skills in both the college lab and clinical area. Didactic instruction will be taught concurrently. Instructor's approval or Prerequisite: HCP0130  
Lec Hrs = 40  Lab Hrs = 0  Oth Hrs = 80  Fees = 72.95

**HCP0130 HEALTH CAREERS CORE CURRICULUM**  (2)

The Health Careers Core Curriculum course presents basic knowledge & skills for students majoring in a health science degree program. The course introduces students to a health care delivery system, the health occupations, and teaches basic medical and employability skills.

Lec Hrs = 45  Lab Hrs = 30  Oth Hrs = 0  Fees = 52.00

**HCP1930 FUNDAMENTALS OF CARDIAC CATHETERIZATION**  (3)

This course is designed to provide the basic knowledge and skill necessary to prepare the health professional for orientation into a cath lab setting. The focus is to prepare the personnel to perform and function in a cath lab setting as related to diagnostic and interventional procedures. Topic areas include: historical perspective, techniques of cardiac catheterization, hemodynamics, pharmacology and radiology. Prerequisites: 2 years work experience in health related field. BCLS-C Certification.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 2.00

**HFT1210 SUPERVISORY DEVELOPMENT**  (3)

This course provides training on the art of supervising employees and the development of sound relations with other departments. It covers methods of controlling costs, development of cost consciousness, cost improvements, techniques in the supervision of employees, and developing sound relations with other departments.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HFT1700 INTRODUCTION TO TOURISM INDUSTRIES**  (3)

This course provides a survey of the history, organization, problems, opportunities and future trends in the areas which comprise the travel and tourism industries. Emphasis is placed on the economic benefits and social implications of tourism. This course is beneficial to the purchaser of tourism services as well as the marketer.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HFT1941 OPERATIONS AND SERVICE PRACTICUM**  (3)

This course requires practical work experience or participation in formalized internship program in related disciplines in a approved segment of the hospitality/restaurant/travel industries and is coordinated with a weekly seminar. Faculty makes regular appraisals of the learning progress through on-site visitations and consultation with supervisors. Emphasis is placed on how the job relates to the satisfaction of customer needs. In addition, the essence of the service transaction offered by the organization is analyzed, including both the tangible and intangible components.

Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HFT2220 ORGANIZATION AND PERSONNEL MANAGEMENT**  (3)

This course covers the organization, supervision and direction of operations in the hospitality/restaurant/travel industries. It analyzes the internal organizational structure and its administrative roles and functions. The course considers techniques of employee training, promotions, job specifications, discipline and morale. The course borrows from the behavioral sciences by emphasizing the human dimensions of management.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HFT2250 HOTEL MANAGEMENT**  (3)

This course provides a study of the growth and progress of the hotel industry and how hotels are developed, organized, financed and operated.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HFT2410 FRONT OFFICE SYSTEMS AND PROCEDURES**  (3)

This course provides basic training in front office procedures, and focuses on the rooms division of a hotel: front office, housekeeping, guest service, engineering, and security/loss prevention.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

**HFT2460 FINANCIAL MANAGEMENT**  (3)

A study of accounting systems for the hospitality/restaurant/travel industries with emphasis on operating...
This course emphasizes how to sell and promote the services that hospitality/restaurant/travel industries offer guests. It covers the development of business through personal selling, media advertising and publicity. In addition, the operations of a sales and convention department are studied.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HFT2721 TRAVEL AGENCY MANAGEMENT AND OPERATION  (3)
This course provides familiarization with travel agency operations including the selling, transporting, storing, advertising, planning, and management of travel services. The course also provides hands-on training in computerized reservations (SABRE) and keyboarding, and incorporates key aspects of managing corporate travel.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HFT2942 MANAGEMENT AND CONTROL PRACTICUM  (3)
This course requires practical work experience or participation in a formalized internship program in related disciplines in an approved segment of the hospitality/restaurant/travel industries and is coordinated with a weekly seminar. Faculty make regular appraisals of the learning progress through on-site visitations and consultations with supervisors. Emphasis is placed on human relations, motivational techniques and management styles relating to the control of employees, money, and material as they are used to satisfy customer needs.

Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HFT2949 CO OP WORK EXPERIENCE  (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by students and employer. Prerequisites: Co-Op department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HIM1000 INTRO TO HEALTH INFORMATION MANAGEMENT  (2)
This course provides an introduction to learning technologies, learning styles, the program, and the profession, including its history, roles, functions, and ethics. Upon completion, students should be able to use learning technologies, apply learning skills and describe the program and profession.

Prerequisite: BSC1085 BSC1085L  Corequisite: BSC1086 BSC1086L

Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HIM1110 HEALTH DATA CONCEPTS  (3)
This course covers basic concepts and techniques for managing and maintaining health record systems. Topics include: record content and format, analysis, record management, forms design/control, release of information, indexes and registers. Upon completion, students should be able to demonstrate and understanding of health record systems, including their maintenance and control.

Pre or Corequisite: HIM1000 HIM1300

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 3.00

HIM1253 CODING: BEGINNING  (4)
This beginning course is designed to provide an introduction into basic coding and coding guidelines. The course will focus on defining basic coding definitions, review of coding guidelines, introduction to billing methodology and application of codes to specific basic coding assignments using ICD, CPT, and HCPCS.

Prerequisite: BSC1086 BSC1086L HIM1435  Corequisite: HIM1260

Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HIM1300 HEALTHCARE DELIVERY SYSTEMS  (3)
This course is an introduction to the historical development, current structure, operation, financing, and future directions of the major components of the U.S. health care delivery system. A population perspective is used. Upon completion, students should be able to identify the major components, issues and trends in the U.S. healthcare delivery system.

Prerequisite: BSC1085 BSC1085L  Corequisite: HIM1000 HIM1435

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 35.00

HIM1435 PATHOPHYSIOLOGY  (3)
This course covers the nature, cause, and treatment of human diseases including the diagnostic and therapeutic modalities used for each. Typical health record data is interpreted. Basic Pharmacological management of various diseases are presented. Upon completion, students should be able to demonstrate an understanding of the diagnosis, management and documentation of human diseases.

Prerequisite: BSC1085 BSC1085L HSC1531  Corequisite: BSC1086 BSC1086L HIM1300

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

HIM1800 PROFESSIONAL PRACTICE EXPERIENCE: B  (2)
This is an introductory level course giving the students their initial supervised Professional Practice experience in the health information management department. Emphasis is on record assembly, analysis, filing, admission and discharge procedures. Basic doing will be addressed. Upon completion, the student shall have an understanding of the daily functional operations of a health information management department. Each student will be responsible for completion of a
HIM2012 LAW AND ETHICS (2)
This course focuses on the impact of legal and ethical issues in health information management. Topics include an overview of the branches of government, tort law; confidentiality and release of information, subpoenaed information; record retention and security; information consent; liability; patient rights; negligence and malpractice; and ethics. Upon completion, students should be able to comply with legal requirements and be aware of legislative and regulatory trends.
Prerequisite: HIM1110 HIM1300
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2110 ELECTRONIC MEDICAL RECORD AND TECHNOLOGY (2)
This course will review the history of the electronic health record and current trends in healthcare information applications such as clinical information systems, administrative information systems, and management support systems. Students will explore the transition from a paper-based health record to an electronic health record and associated issues.
Prerequisite: HIM1800
Corequisite: HIM2012 HIM2652
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2214 HEALTH STATISTICS (2)
This course covers the collection, compilation, analysis, verification, and display of health care statistics. Topics include: the use of statistics, basic statistical principles, commonly computed rates, vital statistics, uniform reporting requirements, data display, ethics, and the role of the HIM department. Upon completion, students should be able to collect, calculate, analyze, present, and report statistical data.
Prerequisite: HIM1110 MAT0024
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2232 CODING: INTERMEDIATE (3)
This intermediate coding course is designed to build upon the HIM1253 Beginning Coding course by enhancing the student's quality of coding and understanding of sequencing for ICD-9-CM and CPT codes. DRG logic, APCs, RBRVs, PPS and other reimbursement strategies will be researched and discussed. Coding and billing compliance will be discussed.
Prerequisite: BSC1086 BSC1086L HIM1253
Corequisite: HIM2214
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2234 CODING: ADVANCED (3)
This is an advanced coding course giving the student extensive 'hands-on' experience in coding complex and sophisticated cases from inpatient, outpatient and physician office settings typically handled by the coding specialist on the job. Emphasis will be placed on quality of specific coding, sequencing, coding compliance and billing methodology. Students will be expected to code assigned cases utilizing the ICD-9-CM and CPT coding manuals and automated coder/groupers. All coding exercises will be timed, conducted and verified in the classroom.
Prerequisite: BSC1086 BSC1086L HIM2232
Corequisite: HIM2810
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 35.00

HIM2500 PERFORMANCE IMPROVEMENT (2)
This course is an introduction to the principles of performance improvement and quality management in health care. Topics include: clinical quality improvement; utilization management; risk management; medical staff credentialing and peer review; accreditation standards; laws and regulations; tools for data collection, analysis, and display; and the role of the HIM department. Upon completion, students should be able to apply performance improvement techniques; collect, analyze, and display data; and support a range of quality management activities.
Prerequisite: HIM2012
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2512 SUPERVISION & ORGANIZATIONAL LIFE (2)
This course covers management and supervision principles as they are applied to healthcare settings. A study of the aspects and techniques of planning, organizing, motivating, and controlling is presented with emphasis on communication, collaboration, and decision making.
Prerequisite: HIM2012
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2652 HEALTH INFORMATION SYSTEMS (3)
This course is an introduction to information technology related to healthcare and the automated tools and techniques for collecting, storing, and retrieving data. Topics include: system analysis, design, and security; file structure, networking, telecommunications, document imaging, medical informatics, the electronic health record, and implementation issues. Activities include HIM computer applications. Upon completion, students should be able to assist in the design, implementation, evaluation, and maintenance of automated information systems in healthcare.
Prerequisite: CGS1100 HIM1800
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIM2810 PROFESSIONAL PRACTICE 2 (2)
This is a continuation of the supervised professional practice experience in a health information management department. Emphasis is placed on health information systems, coding, and law and ethics. Upon completion, students should be able to apply health information theory to practice. Each student will be responsible for completion of a Professional Practice II Workbook.
Prerequisite: HIM1800 HIM2012 HIM2232
Corequisite: HIM2234
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 64 Fees = 20.95

HIM2930 TRANSITION SEMINAR (1)
This course will focus on assisting the student to begin integration into the health information management field by exploring career options, developing a professional development plan, creating a resume, exploring credentialing requirements, and preparing the student to leave the classroom and enter the workplace. Activities conducted in the classroom will assist the student to enter the workplace as a team player with a positive attitude and team communication skills. The course will introduce the student to the preparation needed to sit for the RHIT National Examination by AHIMA.
Prerequisite: HIM2234 HIM2810
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIS2939 SPECIAL TOPICS IN HISTORY (3)
The content of this course will vary, to be determined by the instructor of record. The course is intended to offer students the opportunity for in-depth study of specialized areas and topics in history.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIS2950 HISTORY TRAVEL STUDY (1)
A combination of classroom preparation plus foreign travel. Variable content depending on countries to be visited. Historical background and travel preparation will be included.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HIS2955 HISTORY STUDY ABROAD (3)
A combination of classroom preparation plus foreign travel. Variable content depending on countries visited. Historical background and travel preparation will be included.
Prerequisite: instructor's approval.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
Course Descriptions

HIS2956 HISTORY TRAVEL STUDY (6)
The same general description applies to this course as is given
to the History Study Abroad offered for three semester hours.
However, a longer itinerary to be visited will necessitate more
extensive course requirements.
Lec Hrs = 96 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HSC1949 HEALTH SERVICE WORK EXPERIENCE (20)
Students with a postsecondary adult vocational certificate
program may receive credit for classroom and work experience
based upon departmental review. Credits may apply only to
students seeking an A.S. degree in Health Service Management.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 0.00

HSC2100 PERSONAL AND COMMUNITY HEALTH (3)
This study of health problems relating to the individual
community including mental health, physical fitness, nutrition,
the use of tobacco, alcohol and drugs, marriage and family
living, safety, and the study of diseases. Not classified as an
activity course. Elective credit only.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HSC2400 FIRST AID AND SAFETY (3)
Accepted practices and training in first aid care of the injured
and medical self help for survival in emergencies. Course
includes suggested procedures effective until adequate medical
assistance can be obtained. Principles of safety problems and
accident prevention are included. Not classified as an activity
course. Elective credit only.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HSC2660 COMMUNICATION FOR INTERDISCIPLINARY
HEALTH TEAMS (2)
An introductory course for healthcare professionals working
with interdisciplinary teams. Students will study the dynamics of
interdisciplinary teams, quality customer relations, ethical and
legal considerations and therapeutic communication skills.
Note: Registration limited to students currently enrolled in the
second year of an allied health program.
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HUM2700 HUMANITIES TRAVEL STUDY (3)
An examination of the styles and influences of Music, Art,
Theatre, Religion, Literature, and Philosophy in selected
geographical areas. Course combines classroom preparation
and foreign travel.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HUM2701 HUMANITIES TRAVEL STUDY (3)
The same general description applies to this course as is given
to the Humanities Travel Study offered for three semester hours.
However, a longer itinerary of the location(s) to be
visited will necessitate more extensive course requirements.
Lec Hrs = 96 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

HUN1202 ESSENTIALS OF NUTRITION AND
DIET THERAPY (3)
A study of nutritional science the nutrient, interrelationships and
the nutritional needs of persons at various stages of life cycle.
Particular emphasis will be placed on diet therapy in the
modification of disease process. This course is open to all
allied health students only or with permission of the instructor. 3
hrs. lec. Term I, II, and III.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

IDH2121 HONORS INTERDISCIPLINARY STUDIES IN (3)
The Honors Interdisciplinary Studies Seminar is the capstone
course in the Honors Program. In this course Honors students
have the opportunity to integrate critical and analytical skills
that will enable them to evaluate diverse ideas, information and
research from an interdisciplinary perspective. The study topic
will vary and will be structured around a specific theme; such as
time period, an event or series of events, or a broad cultural
course content will emphasize the relationships of
knowledge in any combination of the following discipline
groups: Mathematics/ Science, Social Science and Behavioral
Science and Liberal Arts. Emphasis will be placed on
interdisciplinary activities in composition, communication,
technology and research. Activities may include written
projects, group projects, presentations, community service,
research and/or field trips.
In this course students will survey the properties and uses of interior materials (3)

Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 40.00

IND2501 INTERIOR DESIGN INDUSTRY PRACTICES (3)
The course familiarizes students with the everyday business, legal and financial considerations of the design industry. Course covers operations, designer/client/vendor/professional consultant/contractor relationships; government and statutory rules and regulations, contract analysis, insurances, fees, and public relations.

Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 40.00

IND2945 INTERNSHIPS IN DESIGN INDUSTRY (1)
The course is a culmination of the Interior Design Technology Advanced Technical Certificate. Students will work in two separate positions in the interior design industry, e.g. professional designer's office, kitchen or bath design firm, retail sales of interior design elements, general contractor's interior design services division, and/or design element fabricator, etc.

Pre or Corequisite: IND2501
Lec Hrs = 16  Lab Hrs = 256  Oth Hrs = 0  Fees = 0.00

INP1390 HUMAN RELATIONS IN BUSINESS AND INDUSTRY (3)
Introductory course to the study of human behavior emphasizing its practical applications in business and industry. It introduces the student to personal and social adjustment mechanisms as a means of understanding the behavior of one's self and of other. Also introduces the student to current psychological applications in the fields of testing, advertising, selling, market research, morale, personnel work, employee selections and training, and supervisory practices.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 40.00

ISS2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ITA1120 ELEMENTARY ITALIAN I (4)
Fundamentals of speaking, understanding, reading, and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with ITA1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.

Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

ITA1121 ELEMENTARY ITALIAN II (4)
Continuation of ITA1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.

Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00
JOU1100 BASIC REPORTING  (3)
Pre-professional course providing fundamental instruction and practice in writing as a basis for all upper division courses in journalism. Includes writing in the news style, leads, defining news, types of stories, organization of stories, policy and libel. Prerequisite: Permission of instructor or
Prerequisite: ENC1101
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

JOU1207L MAGAZINE PRODUCTION  (3)
Course provides instruction and practical experience in the philosophical and technical aspects of magazine production, including printing processes, copy setting, page design, graphic design, and camera ready layout techniques. Prerequisite: JOU1100
Lec Hrs = 16  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

JOU1400L NEWSPAPER PRACTICUM I  (1)
Practical application of news writing and editing principles through work with college media. Instructor's approval or
Prerequisite: JOU1100
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

JOU1401L NEWSPAPER PRACTICUM II  (2)
Continuation of JOU1400L. Students may take JOU1400L and JOU1401L during the same term. Instructor's approval or
Pre or Corequisite: JOU1400L
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 0.00

JOU1402L NEWSPAPER PRACTICUM III  (2)
Continuation of JOU1421L. Practical application of newspaper principles: copy editing, page layout, typesetting, headline writing, picture cropping, rewriting, copy preparation through work with the college newspaper. Instructor's approval or
Prerequisite: JOU1400L JOU2200
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 0.00

JOU1440L MAGAZINE PRACTICUM I  (1)
Practical application of magazine production, magazine writing, or magazine editing principles through work with college magazine media or internship with community media under academic supervision. Prerequisite: Instructor's approval or
Prerequisite: JOU1207L
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

JOU1441L MAGAZINE PRACTICUM II  (1)
Continuation of JOU1440L. Instructor's approval or
Prerequisite: JOU1440L
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

JOU2200 NEWSPAPER EDITING AND MAKEUP  (3)
Course provides instruction and practical experience in copy editing, rewriting, headline writing, page design for both makeup copy and advertising, picture cropping and scaling, cutlines, and an introduction to desktop publishing. Instructor's approval or
Prerequisite: JOU1100
Lec Hrs = 16  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

JOU2203 MAGAZINE EDITING  (3)
Course provides instruction and practical experience in editing a magazine including human relations, expertise in article writing, copy and picture editing, audience analysis, and legal and economic aspects of editing. Prerequisite: JOU1100
Lec Hrs = 16  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

JOU2949 CO OP WORK EXPERIENCE  (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

JST1500 SURVEY OF JEWISH CULTURE  (3)
A survey of the development of Jewish culture through a study of the concepts, values, traditions and rituals of Judaism.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

JST1700 THE HOLOCAUST  (3)
The historical, political, literary, religious, and philosophical dimensions of the Holocaust.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

JST2400 SURVEY OF JEWISH CIVILIZATION  (3)
A survey of the history of Jewish civilization beginning with the origins of the Hebrews, through early Christianity and the Renaissance, to the State of Israel.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

JST2815 HISTORY OF MODERN ISRAEL  (3)
This course will begin with the period of the Enlightenment for the Jewish people and will follow the historical development which led to the development of the State of Israel.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LAH1004 THE HISTORY OF THE TWO AMERICAS  (3)
The North and South America story, from the day of the Indians through the conquest and colonization of the whites to the beginning of today's revolutions. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LAH1005 THE HISTORY OF THE TWO AMERICAS  (3)
The problems of today in the Western hemisphere, how they developed, why they changed and what will become of them with emphasis on inter-American relations in the areas of politics, economy and social structure. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LEI1000 INTRODUCTION TO RECREATION  (3)
This course acquaints the individual with the recreation organization and opportunities for leaders in the field.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LEI1260 INTRODUCTION TO OUTDOOR RECREATION  (3)
This course will introduce students to the career opportunities available in the field of outdoor recreation/adventure education.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LEI1700 RECREATION FOR SPECIAL GROUPS  (3)
An overview of the characteristics and needs of members of special groups and how to plan and implement recreational activities appropriate for each group.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LEI2401 RECREATION MANAGEMENT  (3)
A course primarily designed for the student to learn about the different aspects of managing recreational programs and events. The student will be exposed to the many and varied needs of developing a quality program or event.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

LEI2731C RECREATION THERAPY  (2)
An overview of various therapies that can be useful in a recreational setting.
Lec Hrs = 16  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00
LEI2861 RECREATION TECHNOLOGY AND EQUIPMENT (3)
The rapid growth of technology and sophistication of equipment, necessitate the recreation specialist to keep abreast of developments in the market place. This course is designed to expose students to hardware, software, and equipment at recreation and community centers across the state to attract participants in recreational activities. Opportunities are provided for a hands-on learning experience in this technology and equipment.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIN1670 ENGLISH GRAMMAR (3)
A course designed for those desiring more intensive work in grammar and syntax than composition courses provide. Includes the study of grammatical principles and theory and application of those principles in student writing. May be taken by public school teachers for recertification. Special fee charged.
Prerequisite: ENC0021
Lec Hrs = 48 Lab Hrs = 8 Oth Hrs = 0 Fees = 5.00

LIT1171 JEWISH LITERATURE I: 1800 TO THE HOLOCAUST (3)
A study of selected works from the Jewish Enlightenment to 1933. Analyzes the major characteristics of worldwide Jewish literary works. Includes such authors as Sholom Aleichem, Agnon, Bialik, Cahan, and H. Roth. May be used for study abroad. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT1172 JEWISH LITERATURE II: HOLOCAUST TO THE PRESENT (3)
A study of selected works from the Holocaust to the present. Analyzes the major characteristics of worldwide modern Jewish and Israeli literature. Includes such authors as Weisel, Malamud, Bellow, P. Roth, Ozick, Singer, Oz. Yehoshua and Appelfeld. May be used for study abroad. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT1370 THE BIBLE AS LITERATURE (3)
A study of literary forms found in the Bible, such as history, biography, short story, parable and lyric poetry. Basic literary analysis of selected portions of the Bible. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2020 INTRODUCTION TO THE SHORT STORY (3)
A discussion of the themes in short stories from many countries of the world. May include such authors as Poe, Borges, Camus, Chekhov, Fuentes, Mishima, O’Connor, Bambara, Walker, Kafka, and De Maupassant. Meets Areas 2A and 8 general education requirements for the A.S. degree. Meets Areas 2 or 5 general education requirements for the A.S. and A.A.S. degrees. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2030 GREAT IDEAS IN POETRY (3)
A view of poetry as an exploration into the depth of human experience. Audio-visual materials, guest speakers, and field trips may be utilized. Students read and discuss the aesthetics of poetry. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2110 WORLD LIT THROUGH RENAISSANCE (3)
A survey of selected masterpieces of world literature before 1610. Includes excerpts from the Old and New Testaments and authors such as Sappho, Sophocles, Ovid, Confucius, Lao Tzu, Dante, Boccaccio, Aesop, Homer and Shakespeare. Meets Areas 2A and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. and A.A.S. degrees. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2120 WORLD LIT RENAISSANCE TO PRESENT (3)
A survey of selected masterpieces of world literature since 1610. Includes such authors as Rousseau, Franklin, Wollstonecraft, Tolstoy, Lesing, Camus, Achebe, Yeats, Neruda, Voltaire and Marquez. Meets Areas 2A and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. and A.A.S. degrees. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2310 LITERATURE OF THE SUPERNATURAL AND SCIENCE FICTION (3)
An introduction to the literature of science fiction, fantasy, and the supernatural. Includes authors such as Stoker, Lovecraft, Asimov, Bradbury and Tolkein. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2341 MYSTERY FICTION (3)
A discussion of mystery fiction by investigation of the plot, characters, settings, styles, motifs, and development of the most representative authors of detective, police, procedural, spy, and mystery thriller fiction. Includes authors such as Poe, Christie, Doyle, and Hammett. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2510 MALE FEMALE IMAGES IN LITERATURE (3)
An exploration of the ways literature represents and perpetuates sex roles and stereotypes. Readings include a drama, short stories, novels, and poetry from classical to contemporary. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2935 SEMINAR IN LITERATURE (3)
Literary topics of special interest to students. Course offerings may be in such areas as western literature, the study of the greater novels, or ethnic literature. Class discussions may also include films. Prerequisite: Eligibility for ENC1101
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

LIT2953 TRAVEL SEMINAR IN LITERATURE (3)
A combination of classroom preparation plus travel. Variable content depending on area to be visited. Prerequisite: Eligibility for ENC1101 and instructor's approval
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MAC1105 COLLEGE ALGEBRA (3)
A college algebra course containing topics such as solving, graphing and applying linear and quadratic equations and inequalities; exponential and logarithmic properties; linear, quadratic, rational, absolute value and square root functions; operations, compositions, and inverses of functions; and systems of equations and inequalities, all with applications throughout the course. Requirement of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.
Prerequisite: MAT1033
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 20.00

MAC1114 TRIGONOMETRY (3)
This course, in conjunction with MAC1140, is designed to prepare the student for the study of calculus. Topics include a functional approach to trigonometry; trigonometric equations; trigonometric identities; solving triangles; DeMoivre’s Theorem; radian; polar coordinates; and parametric equations. Graphing calculator may be required. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.
**Course Descriptions**

This course, in conjunction with MAC1114, is designed to prepare the student for the study of calculus. Topics include sequences, series, mathematical induction, matrices, determinants, and systems of equations. Also included are polynomial, rational, exponential, and logarithmic functions and equations, and polynomial and rational inequalities. Functions and graphs are emphasized. A graphing calculator may be required. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.

**MAC1105**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAC1140 PRECALCULUS ALGEBRA

This course is designed to satisfy the dual requirements of MAC1147 and MAC1140, thus preparing the student for the study of calculus. In this course the student will study various function families (e.g. polynomial, exponential, logarithmic, trigonometric) from both analytic and graphical viewpoints, and will use them to model real-life situations. The student will be exposed to additional topics that will deepen their mathematical understanding, including systems, augmented, matrices, sequences and series, and parametric functions. A graphing calculator may be required. Recommendation of the Mathematics Department or at least a grade of "B" in the Prerequisite course is required.

**MAC1140**

- **Lec Hrs**: 80
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAC1233 CALCULUS FOR BUSINESS, SOCIAL AND LIFE SCIENCES

This is a general education course which includes the college-level skills of calculus such as: limits, differentiation, integration, average and instantaneous rates of change, and other applications. Meets Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.

**MAC1233**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAC2311 CALCULUS AND ANALYTICAL GEOMETRY I

This is the first of a three-course sequence in calculus. Students may need to a graphing calculator throughout the sequence of courses. Topics include: analytic geometry, functions, limits, continuity, derivatives and their applications, transcendental functions, antiderivatives, and definite integrals. Certain sections of this course may require the use of a graphing calculator. Meets 5 credits of Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in each of the Prerequisite courses is required.

**MAC2311**

- **Lec Hrs**: 80
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAC2312 CALCULUS AND ANALYTICAL GEOMETRY II

This is the second of a three-course sequence in calculus. Topics include techniques of integration, conics, polar coordinates, indeterminate forms, L'Hopital's Rule, proper integrals, infinite series, parametric equations, improper integrals, vectors, volume, arc length, surface area, work, and other applications of integration. A graphing calculator may be required in certain sections of this course. Meets 5 credits of Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.

**MAC2312**

- **Lec Hrs**: 80
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAC2313 CALCULUS AND ANALYTICAL GEOMETRY III

This is the third of a three-course sequence in calculus. Topics include vectors in 3 space, 3 dimensional surfaces, multivariate functions, cylindrical and spherical coordinates, multiple integrals, partial derivatives, vector fields, Green's Theorem, and Stokes' Theorem. A graphing calculator may be required in certain sections of this course. Meets 4 credits of Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.

**MAC2313**

- **Lec Hrs**: 64
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAD2104 DISCRETE MATHEMATICS

This course will emphasize mathematical theory, formal methods of proof, and applied problem-solving techniques. Topics include formal proof, sets, logic, functions, probability, relations, graphs, trees, and Boolean algebra. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required.

**MAD2104**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAN2021 INTRODUCTION TO MANAGEMENT

This course covers fundamental management principles and concepts. Emphasis is placed on the management functions of planning, organizing, staffing, directing and controlling. Principles of scientific management, motivation, and economic analysis are studied relative to their use in business decisions.

**MAN2021**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAN2604 INTERNATIONAL BUSINESS ENVIRONMENT

A basic course in international business theory and practice focusing on the challenges of managing the operations of an international business in diverse legal, political, economic, and cultural environments. Emphasis is placed on strategic planning and decision-making for the international operations of domestic, foreign and multinational corporations.

**MAN2604**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAN2949 CO OP WORK EXPERIENCE

A course designed to provide training in a student field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by students and employer. Prerequisites: Co-Op department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

**MAN2949**

- **Lec Hrs**: 0
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAP2302 DIFFERENTIAL EQUATIONS

Topics include the classification, solution and application of differential equations, including numerical methods, Laplace transforms, linear systems, and series solutions. Meets Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the Prerequisite course is required. This course may be taken for honors credit with the permission of the instructor.

**MAP2302**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00

### MAR1011 PRINCIPLES OF MARKETING

An introductory course covering the marketing management process. Special topics include the marketing manager's role in a market-directed economy, marketing objectives, strategic planning, and developing marketing mixes for target markets. Material is presented as it relates to the four "P"s of marketing: product, place, promotion, and price. As a learning activity, students analyze forms and prepare case studies of businesses engaged in manufacturing, wholesaling, retailing and service.

**MAR1011**

- **Lec Hrs**: 48
- **Lab Hrs**: 0
- **Oth Hrs**: 0
- **Fees**: 0.00
MAR2141 INTERNATIONAL MARKETING (3)
This course examines basic marketing principles related to business in an international setting. Emphasis is placed on the role of the international marketing manager in the development of marketing strategies for a variety of markets in diverse cultural and economic situations. Topics covered include the decision-making process in the area of foreign market analysis, target market identification, product planning, promotion, and channels of distribution.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MAS2103 LINEAR ALGEBRA (3)
A first course in linear algebra, emphasizing the algebra of matrices and vector spaces. Recommended for students majoring in mathematics or related areas. Meets Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in each of the Prerequisite courses is required. This course may be taken for honors credit with the permission of the instructor.
Prerequisite: MAC1140
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MAT0012 PRE ALGEBRA (4)
A course to improve the abilities of the student who has had difficulties in arithmetic. This course will help the student learn how to read the language of mathematics, to develop problem solving skills, and improve basic arithmetic and algebraic skills. This course includes college-level academic skills in arithmetic and geometry and is nontransferable. Credit for this course may not be used to meet degree requirements.
Prerequisite: MAT0012L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MAT0020 INTEGRATED ARITHMETIC AND ALGEBRA (8)
A course which combines the arithmetic and algebra skills of MAT0012 and MAT0024. This course includes all mathematics skills necessary for entry into college-level mathematics. Arithmetic topics include operations with real numbers, fractions, decimals, exponents, geometry, measurement systems, percents, and ratios. Algebra topics include sets, properties, operations, factoring, solving and graphing linear equations and inequalities, operations with quadratic equations, and applications of all concepts. Credit for this course may not be used to meet degree requirements.
Prerequisite: MAT0020L
Lec Hrs = 96  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MAT0020L INTEGRATED ARITHMETIC AND ALGEBRA LAB (0)
A laboratory course that will supplement classroom instruction in MAT0020. Instruction will focus on the individual needs of the student.
Pre or Corequisite: MAT0020
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 20.00

MAT0024 ELEMENTARY ALGEBRA (4)
A course to help students learn the basic algebra skills needed for college-level mathematics courses. The student will utilize his/her knowledge of arithmetic and algebra for applications problems. Topics include sets; linear and quadratic equations and linear inequalities; exponents; factoring; rational expressions; radical expressions; graphing of linear equations; and systems of equations. Certain sections of this course will use teaching software; such sections will occur in an automated and interactive environment. Credit for this course may not be used to meet degree requirements. Suitable placement test score or at least a grade of "C" in the Prerequisite course is required.
Prerequisite: MAT0012
Corequisite: MAT0024L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MAT0024L ELEMENTARY ALGEBRA LAB (0)
A laboratory course that will supplement classroom instruction in MAT0024. Instruction will focus on the individual needs of the student and consist of computer aids, video tapes, and tutor support.
Pre or Corequisite: MAT0024
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 20.00

MAT1033 INTERMEDIATE ALGEBRA (3)
A continuation of algebra containing topics such as factoring; operations with rational expressions; absolute value; exponents, radicals, and roots; complex numbers; linear and quadratic equations and linear inequalities; graphs; systems of equations; and functions, all with applications throughout the course. Certain sections of this course will use teaching software; such sections will occur in an automated automated and interactive environment. Meets 3 hours of elective credit for the A.A. degree. Suitable placement score or at least a grade of "C" in MAT0024 (or MAT0020) is required.
Prerequisite: MAT0024
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 20.00

MCB2010 MICROBIOLOGY (3)
An introduction to microbiology emphasizing principles of basic morphology, physiology modes of transmission, biochemistry and genetic mechanisms. It will include a survey of representative types of microorganisms and the role of pathogenic organisms in causing diseases and infections. Prerequisites: Four hours of coursework in the biological sciences, including laboratory, and three hours of chemistry, with a minimum grade of "C". Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree.
Placement by Testing Department or
Prerequisite: BSC1085 BSC1085L CHM1032
Pre or Corequisite: MCB2010L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MCB2010L MICROBIOLOGY LABORATORY (1)
This lab course will complement Lecture topics and include the application of fundamental techniques in the isolation cultivation, and identification of microorganisms. Prerequisite: Four hours of coursework in the biological sciences, including laboratory, and three hours of chemistry, with a minimum grade of "C". Two 1.5 hour sessions per week. Meets Area 4C general education requirements for the A.A. degree. Meets Area 4 5 general education requirements for the A.S. degree.
Placement by Testing Department or
Prerequisite: BSC1085 BSC1085L CHM1032
Pre or Corequisite: MCB2010L
Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 45.00

MEA005 INTRODUCTION TO MEDICAL ASSISTING (1)
An overview of medical assisting and related health professions including duties and responsibilities. Public relations and interpersonal relationships of the health team members are emphasized. Study of the various medical specialties and the history of medicine are included. Front office procedures include telephone techniques, medical records management, and mail processing. Prerequisite: program admission.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MEA0204 CLINICAL PROCEDURES (2)
Designed to orient the medical assistant to all phases of patient care in the physician's examining room. Discussion of basic principles involved relating to: vital signs, physical examination, minor surgery, instrumentation sterilization, preparation of medications, physical therapy modalities and
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**Course Descriptions**

**MEA0255 CLINICAL PROCEDURES LABORATORY**

Lectures portion of MEA0204. Laboratory practice in procedures relating to: taking vital signs, assisting at the physical examination and minor surgery, sterilization of instruments, preparation and administration of medications, assisting with physical therapy modalities and taking electrocardiograms. Approved uniform required.

Pre or Corequisite: HSCI1531 MEA0204

**MEA0258**

- Prerequisite: MEA0204 MEA0204L MEA0255 MEA0255L
- Microbiology/Bacteriology. Consists of 4 hours of lecture on a mini-semester.
- Pre or Corequisite: MEA0204 MEA0204L

**MEA0259**

Prerequisite: MEA0258

- Provides instruction in the basic principles of X-ray, film handling, processing, radiographic technique, radiation biology and radiation protection. Prerequisite: Program Admission or department permission.
- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**MEA0259L**

Prerequisite: MEA0258

- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

**MEA0540L**

Prerequisite: HSCI1531

- Lec Hrs = 37 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**MEA0540**

- Provides instruction in the basic principles of X-ray, film handling, processing, radiographic technique, radiation biology and radiation protection. Prerequisite: Program Admission or department permission.

- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

**MEA0540L**

Prerequisite: HSCI1531

- Lec Hrs = 37 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**MEA0204**

- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

**MEA0204L**

Pre or Corequisite: HSCI1531 MEA0204

**MEA0224**

- An introduction to medications, their classifications, dosage, administration, and the legal and ethical considerations applied.

- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

**MEA0255**

Lecture portion of MEA0255L includes discussions in a classroom setting regarding urinalysis, microscopy, specimen collection and preparation, and basic office Microbiology/Bacteriology. Consists of 4 hours of lecture on a mini-semester. Professional uniform required.

Pre or Corequisite: MEA0204 MEA0204L MEA0255L

**MEA0256**

Lecture portion of MEA0256L includes instruction in basic office hematology, immunology and chemistry. Professional uniform and shoes required.

Pre or Corequisite: MEA0204 MEA0204L MEA0255 MEA0255L

**MEA0258**

- Provides instruction in the basic principles of X-ray, film handling, processing, radiographic technique, radiation biology and radiation protection. Prerequisite: Program Admission or department permission.

- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**MEA0259**

Prerequisite: MEA0258

- Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00
MEAO8000 EXTERNAL IN MEDICAL ASSISTING (7)
Student assigned to physician's office, clinic, or laboratory for a total of two hundred hours. Conference meetings will be arranged on an individual or group basis at a time and place to be arranged by the student and the coordinator. Attendance at group orientation prior to assignment is mandatory. Prerequisite: all courses suggested in Term I. Corequisite: all courses suggested in Term II.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 224 Fees = 30.00

MEAO9520 SEMINAR IN MEDICAL ASSISTING (0)
Lecture course designed to serve as a review for medical assisting students in preparation for their national certification examination. Selected areas of the curriculum will be emphasized as needed. Corequisite: MEAO8000
Lec Hrs = 26 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MEAO1233 ANATOMY AND PHYSIOLOGY FOR M.A. (3)
A basic anatomy and physiology course designed to meet the needs of medical assisting students. Emphasis will be placed on the human body structure, the functions of its many different systems and their associated diseases. Corequisite: HSC1531
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MGFI1060 MATH FOR LIBERAL ARTS I (3)
This is a general education course which includes the college-level skills not included in the courses MAT0012 Pre-Algebra, MAT0024 Elementary Algebra, and MAT1033 Intermediate Algebra. This course will include topics in logic; geometry; set theory; probability; and statistics. This course will also emphasize applications to real world situations and the integration of other disciplines, including (but not limited to) business and the physical sciences. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required. Prerequisite: MAT1033
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 20.00

MGFI1070 MATH FOR LIBERAL ARTS II (3)
This is a general education course which includes college-level skills not included in the courses MAT0012 Pre-Algebra, MAT0024 Elementary Algebra, and MAT1033 Intermediate Algebra. The course will include selected topics from mathematics of finance; linear and exponential functions; number systems; history of mathematics; theory of numbers; graph theory; numerical methods and algorithms; game theory; and student project(s) (strongly recommended). This course will also emphasize applications to real-world situations and the integration of other disciplines, including (but not limited to) business and physical sciences. (Note: Liberal Arts Math I is not a Prerequisite for this course). Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required. Prerequisite: MAT1033
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA1021 SALESMANSHIP (3)
Through a combination of principles and techniques, this course identifies the why, what, how and when of selling. Students develop skills in prospecting, opening the sale, presenting customer benefits, overcoming objections, and closing the sale.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA1511 ADVERTISING (3)
This course introduces the use of promotional strategy and marketing communications in achieving marketing objectives. It focuses on how product features/benefits can be translated into promotional appeals that will influence customer purchasing behavior. Topics include promotional objectives, product positioning, selecting media, creative analyses, budgeting and measuring promotional effectiveness. As a learning activity, students prepare a promotional program for a product, business, or not-for-profit organization.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA1930 SEMINAR I: MARKETING IN PERSPECTIVE (3)
This course includes marketing management related activities such as individual projects in promotion and entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA2932 SEMINAR III: MARKETING MANAGEMENT (3)
This course includes marketing management related activities such as individual projects in promotion and entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Prerequisite: MKA1930
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA2934 SEMINAR IV: RESEARCH IN MARKETING (3)
This course includes marketing management related activities such as individual projects in promotion and entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Prerequisite: MKA1930
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA2938 SEMINAR V: RESEARCH IN MARKETING (3)
This course includes marketing management related activities such as individual projects in promotion and entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Prerequisite: MKA1930
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MKA2949 CO-OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MLT1525 MEDICAL LABORATORY TECHNOLOGY III (5)
Immunohematology to include basic genetics; quality control; principles, techniques and factors affecting testing for identification of immunoglobulins (natural and acquired); donor selection, phlebotomy and processing including legal aspects; blood components; compatibility testing and exchange transfusion; Course includes experiences in the classroom and in a clinical facility.
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 88 Fees = 37.95
MLT2624 CLINICAL CHEMISTRY (1)
A study of enzymes, steroids, hormones, lipids and toxicology. Advanced instrumentation. Prerequisite: Satisfactory completion of an approved MLT C Program or permission of the MLT Coordinator. 1 hr, per week. Term II only.
Pre or Corequisite: MLS2624L
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MMC1000 INTRO TO MASS COMMUNICATION (3)
Overview of contemporary mass media and its historical background. Includes processes and effects of media messages on the individual and society. Deals with the media industry, its responsibilities, legalities, and careers. Media discussed may include newspapers, magazines, books, radio, television, advertising, public relations, and the movie and recording industries.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MNA1134 CONTACT CENTER OPERATIONS (3)
This course will prepare students for employment as Contact Center Representatives in the field of Contact/Customer Service. Students will be able to proficiently act as information processing operators on a windows based micro-computer. Written and oral communication, computer essentials, and customer service skills will be enhanced with an emphasis throughout on quality performance in the learning environment and in the workplace.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MNA1161 INTRODUCTION TO CUSTOMER SERVICE (3)
This course provides the student with the basic concepts and current trends in the customer service industry. Through actual case studies, the students analyze organizations which have implemented successful customer service strategies.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MNA1821C INTRODUCTION TO E-COMMERCE (3)
This course examines the history, basic, tools, and other important issues surrounding the many forms of Electronic Commerce. The students develop skills and gain knowledge and experience with a networked community designed for business function and transactions. Subject areas include: types of E-Commerce; E-Marketing; E-Accounting; E-Customer Service; effective E-Commerce solutions and the development process.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MNA1822C MANAGEMENT OF E-COMMERCE (3)
This course examines the management functions unique to Internet marketing and sales. Subject areas include: infrastructure knowledge; technical requirements; designing security solutions; content management; successful commercial packages; and the globalization of E-Commerce. Prerequisite: MNA1821C
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MNA1948 INDUSTRY WORK EXPERIENCE (27)
Students with a postsecondary adult vocational certificate or equivalent may receive credit based on departmental review. Credits may apply only to students seeking an A.S. or A.A. in Industrial Management Technology.
Lec Hrs = 0  Lab Hrs = 300  Oth Hrs = 0  Fees = 0.00

MNA1948 INDUSTRY WORK EXPERIENCE (27)
Students with a postsecondary adult vocational certificate or equivalent may receive credit based on departmental review. Credits may apply only to students seeking an A.S. or A.A. in Industrial Management Technology.
Lec Hrs = 0  Lab Hrs = 300  Oth Hrs = 0  Fees = 0.00

MNA1948 INDUSTRY WORK EXPERIENCE (27)
Students with a postsecondary adult vocational certificate or equivalent may receive credit based on departmental review. Credits may apply only to students seeking an A.S. or A.A. in Industrial Management Technology.
Lec Hrs = 0  Lab Hrs = 300  Oth Hrs = 0  Fees = 0.00

MNA2823C E-COMMERCE CASE STUDIES (3)
Students will develop an E-business firm build a site for that business, and compare businesses in various industries. They will learn how an E-Business compared to an contrasts from a land-based business with a hands-on approach. Prerequisite: MNA1822C
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MNA2824C E-COMMERCE PRACTICUM (3)
An internship with a corporation, non-profit or governmental agency allowing the student to gain professional experience that will help integrate the theory and practice of information systems. Internships must be approved by the department chair or another appointed designee.
Prerequisite: MNA2823C
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MNA2905 INDEPENDENT STUDY IN INDUSTRIAL MANAGEMENT (3)
A directed study course available to both majors and non-majors who wish to investigate a particular concern or related issue in the field of Industrial Management. The student will make application for the course to the program manager. Prerequisite: All students must contact the Program Manager to obtain registration approval.
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

MNA2949 CO-OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of learning objectives and employer evaluations. Prerequisite: Program Manager approval. All students must contact the program manager to obtain registration approval.
Lec Hrs = 0  Lab Hrs = 144  Oth Hrs = 0  Fees = 0.00

MSL1001 FOUNDATIONS OF OFFICERSHIP (2)
Army ROTC: Examines the unique duties and responsibilities of officers, and the organization and role of the Army, reviews skills pertaining to fitness and communication, and analyzes Army values and expected ethical behavior.
Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

MSL1002 BASIC LEADERSHIP (2)
Army ROTC: Presents fundamental leadership concepts and doctrine, student will practice basic skills that underlie effective problem solving and examine the officer experience.
Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

MSL2101 INDIVIDUAL LEADERSHIP STUDIES (2)
Army ROTC: Develops knowledge of self, self-confidence, individual leadership skills, problem solving and critical thinking skills, and improves communication and conflict resolution skills.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MSL2102 LEADERSHIP AND TEAMWORK (2)
Army ROTC: Focuses on self-development by gaining knowledge of self and group processes and by challenging current beliefs, knowledge and skills.
Lec Hrs = 16  Lab Hrs = 16  Oth Hrs = 0  Fees = 0.00

MSS0001 MEDICAL ETHICS AND STANDARDS FOR MA (0)
Course presents a detailed exploration of ethics and professionalism as it related to massage therapy, focusing on the development and application of appropriate professional boundaries and the psychological dimensions of the client-therapist relationship. Licensure, national certification, professional organizations, malpractice insurance, sexuality, cultural diversity, and the other concepts related to ethical practice are discussed.
Lec Hrs = 15  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MSS0150 ANATOMY AND PHYSIOLOGY OF BODY SYSTEM (1)
The structure and function of human organ systems as they service of massage therapy are presented. Basic pathophysiology of the major body systems and organs as they apply to massage therapy are discussed in relationship to
appropriate care by the massage therapist. Systemic contraindications, local contraindications and cautions that influence massage are presented.

Lec Hrs = 45  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MSS0156 ANATOMY AND PHYSIOLOGY FOR MASSAGE THERAPY

(1)
Course provides an opportunity for students to develop an applied understanding of neuromusculoskeletal anatomy. Postural analysis is presented. Students study the major muscles of the body, their origins, insertions, tendons of attachment, and actions; as well as associated bones, bony landmarks and stabilizing ligaments for each joint. Planes of movement and lever classification are discussed. Prerequisite: MSS0150
Corequisite: MSS0156L
Lec Hrs = 45  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MSS0156L ANATOMY AND PHYSIOLOGY MASSAGE THERAPY

(2)
Course provides integration of neuromusculoskeletal anatomy into therapeutic application of massage. Massage techniques are presented sequentially with review of positioning, appropriate strokes, ethical situations, appropriate draping, etc. Throughout the course, charting and interviewing skills are taught and practiced.
Lec Hrs = 0  Lab Hrs = 60  Oth Hrs = 0  Fees = 25.00

MSS0250 INTRODUCTION TO MASSAGE THERAPY

(0)
Course presents an introduction to the massage therapy profession. Effective and appropriate communication techniques for management of the client-therapist relationship; communication skills necessary for working with colleagues in the health care community; and responsibility to the professional community and one's own community, through civic participation and membership in a professional association are discussed. The theory and history of massage therapy are explored.
Pre or Corequisite: MSS0001 MSS0250L
Lec Hrs = 15  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MSS0250L INTRODUCTION TO MASSAGE THERAPY LAB

(3)
Course explores the effects, precautions and variations associated with basic massage strokes and issues associated with touch and trust. Students learn how to perform a full body massage that includes the five basic Swedish massage strokes and variations plus compression and fascia release. Proper draping, lubrication, bolster use and turning procedures during the massage are also taught as well as appropriate use of pressure, rhythm and movement to enhance the massage's effects. The ability to locate areas of tension or discomfort in clients is developed. Efficient body mechanics, hygiene and self-care while performing massage are practiced. Introductory record keeping as well as centering and breathing techniques are presented.
Pre or Corequisite: MSS0001 MSS0250
Lec Hrs = 0  Lab Hrs = 170  Oth Hrs = 0  Fees = 45.95

MSS0281 ALLIED MODALITIES

(0)
Basic principles of allied modalities such as Polarity Therapy, Asian massage, trigger point therapy, deep tissue massage, reflexology, myofascial massage, muscle energy technique and others are explored as well as demonstrated. Specific techniques are related to the activities or needs of unique populations as appropriate, including older adults, children, persons with disabilities, and athletes. Introduction to the basic elements of other natural health care disciplines is presented.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0281L
Lec Hrs = 15  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MSS0281L ALLIED MODALITIES LAB

(4)
Students learn how to help promote relaxation and relieve muscle tension via palpation as well as by determining joint range of motion, and then applying massage, exercise and stretching to support normal motion, muscle tone and relaxation. General techniques for full body and seated massage are practiced. Emphasis continues on the development of correct body mechanics, injury prevention, table management, draping methods, and charting. Hands-on skills in several modalities such as reflexology, manual lymph drainage and neuromuscular therapy are developed.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0281
Lec Hrs = 0  Lab Hrs = 120  Oth Hrs = 0  Fees = 0.00

MSS0300 HYDROTHERAPY MODALITIES

(0)
The therapeutic use of superficial heat and cryotherapy is discussed with an emphasis on developing an ability to make professional judgments about the application of the appropriate modality for each client situation. The history of hydrotherapy and principles of hydrotherapeutic applications and equipment, indications, contraindications are discussed. Basic principles of ultrasound, interferential current, TENS and electrical stimulation are presented.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0300L
Lec Hrs = 15  Lab Hrs = 0  Oth Hrs = 0  Fees = 33.95

MSS0300L HYDROTHERAPY MODALITIES LAB

(1)
Practical experience in the use of ice, heat and hydrotherapies is provided. Application of physical agents modalities are practiced with emphasis on proper technique, safety, indications and contraindications.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0300
Lec Hrs = 0  Lab Hrs = 45  Oth Hrs = 0  Fees = 33.95

MSS0803L MASSAGE THERAPY CLINICAL PRACTICUM

(3)
Course encourages the synthesis and integration of principles and techniques learned across the curriculum. Students provide comprehensive massage therapy services in the Massage Therapy lab under direct supervision, including specific upper and lower body techniques. Introduces the experience of working in a massage clinic including learning principles of relating to clients, keeping records, determining fees, billing insurance, marketing and building a massage practice, maintaining hygiene standards and other activities. Students participate in case conferences and/or other professional discussions. In addition to laboratory sessions, students are required to engage in practice message sessions outside of scheduled class hours, and must complete a minimum community service requirement.
Lec Hrs = 0  Lab Hrs = 110  Oth Hrs = 0  Fees = 45.95

MTB1103 BUSINESS MATHEMATICS

(3)
This course emphasizes the application of mathematics to selected business topics and problems. In addition, it includes material in linear equations and descriptive statistics.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MTB1310 APPLIED MATHEMATICS

(3)
This course is designed for Associate of Science degree seeking students. The following topics are included: the metric system and measurement; linear and quadratic functions; ratios and proportions; exponents and logarithms; and descriptive statistics. Problem solving and applications requiring a calculator will be presented throughout the course. Credit for this course cannot be used to meet the general education requirements for the Associate of Arts degree.
Prerequisite: MAT0024
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 5.00

MTB1325 ENGINEERING TECHNOLOGY MATH I

(4)
This is the first course in a two term sequence for Electronics and Computer engineering technology students. Topics include Euclidean geometry, algebra, exponents and radicals, graphing, trigonometry, vectors, complex numbers, and
MTB1326 ENGINEERING TECHNOLOGY MATH II (4)
This is the second course of a two term sequence designed for Computer and Electronics engineering technology students. Topics include systems of linear equations, factoring and fractions, roots and radicals, quadratic equations, complex numbers, exponentials and logarithms, trigonometry, analytical geometry and linear inequalities. Calculators will be used to solve problems after the basic principles have been mastered.
Prerequisite: MTB1325
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MTB1370 MATH TOPICS FOR HEALTH RELATED PROFESSIONALS (1)
This course provides an intensive review of mathematics operations involving fractions, decimals, percents, ratios, and proportions. Units and measures in apothecaries, metric, and household systems are also discussed with a major emphasis upon application for the calculation of both oral and parenteral drug dosages.
Pre or Corequisite: NUR1020
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

MTG2204 GEOMETRY FOR TEACHERS (3)
This course is designed for middle and high school mathematics teachers. The course emphasizes Euclidean plane geometry with an introduction to the non-Euclidean geometries. The problems, proofs, and constructions involve line segments, angles, triangles, polygons, circles, parallel lines, and similarity. Credit for this course may not be used to meet general education requirements for the A.A. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MTG2206 COLLEGE GEOMETRY (3)
A college geometry course emphasizing Euclidean Geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve line segments, angles, triangles and polygons, parallel and perpendicular lines, slope of lines, circles, and similarity. Trigonometry is presented in terms of right angle relationships: logic is the basis for deductive reasoning in proofs of theorems; and lines and other geometric figures are graphed in the rectangular coordinate system. Unless a requirement or elective in an A.A. degree program, the transfer credit status of this course would be evaluated by the receiving institution.
Prerequisite: MAT1033
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MUE1440 STRING CLASS (1)
Development of elementary performing skills on the violin. A basic study of all string instruments. Examines literature and teaching techniques for group instruction of students.
Pre or Corequisite: MUT1111
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

MUE1450 WOODWIND CLASS (1)
Development of elementary performing skills on the clarinet. A basic study of all woodwind instruments. Examines literature and teaching techniques for group instruction of students.
Pre or Corequisite: MUT1111
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

MUG2101 CONDUCTING (2)
The elementary theory and practice of the technique of conducting.
Prerequisite: MUT1111 MUT1241
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MUH2019 DEVELOPMENT OF AMERICAN POPULAR MUSIC (3)
Popular music in the United States, from 1820 to the present, including the Big Band Era, Country and Western, Jazz, Black Music, and the Rock scene (beginning in 1955).
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

MUH2111 MUSIC HISTORY AND LITERATURE (3)
A survey course tracing the history of music from antiquity through the 18th century, showing the significance of music's development resulting from social, international and cultural influences. Meets Areas 2E and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
MUN1180 CONCERT BAND (1)
Open to all students, faculty and members of the community who play a band instrument. Chairs assigned by the conductor through audition. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1210 SYMPHONY ORCHESTRA (1)
Open by audition to all students, faculty and members of the community who play an orchestral instrument. Chairs assigned by the conductor. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1280 ORCHESTRA (1)
Open by audition to all students, faculty, and members of the community who play an orchestral instrument. Chairs assigned by the conductor. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1310 COLLEGE SINGERS (1)
Open to all college students by audition. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1340 VOCAL ENSEMBLE (1)
A select vocal ensemble performing a wide variety of literature, including Jazz and Pop. Open to all students by audition. May be taken four times for transfer credit.
Corequisite: MUN1310 or MUN1380
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1341 SEAHAWK SINGERS (1)
A select vocal ensemble performing a variety of literature, including jazz and pop. Open to all students by audition. May be taken four times for transfer credit.
Corequisite: MUN1310 or MUN1380
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1380 BROWARD CHORAL SOCIETY (1)
Open to all student, faculty and members of the community who have experience in the art of singing. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1430 BRASS ENSEMBLE (1)
A select instrumental ensemble that performs music written or arranged for Brass instruments. Enrollment is determined by the director through audition. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1440 PERCUSSION ENSEMBLE (1)
A select instrumental ensemble that performs music written or arranged for Percussion instruments. Enrollment is determined by the director through audition. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1460 CHAMBER ENSEMBLE (1)
Small group whose members are selected by the director through audition. Study and performance of repertoire appropriate to the specific chamber media. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1480 CLASSICAL GUITAR ENSEMBLE (1)
Open to all students, faculty and members of the community who play guitar. Enrollment is determined by the director through audition. Participants will study and perform music from all periods in preparation for public performance. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1481 JAZZ GUITAR ENSEMBLE (1)
Open to all students, faculty and members of the community who play guitar. Enrollment is determined by the director through audition. Participants will study and perform music of various styles in preparation for public performance. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUN1710 JAZZ ENSEMBLE (1)
Enrollment is determined by the director through audition. Study and performance of music associated with the popular music and show presentation fields. May be taken four times for transfer credit.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUS2930 course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = Fees = 0.00

MUS2905 INDEPENDENT STUDY: MUSIC (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to music. Prerequisite: instructor approval. Students will shape the course to fit their needs by planning activities with a faculty advisor.
Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 0.00

MUS2930 MUSIC: SPECIAL TOPICS (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the MUS2930 course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT1001 FUNDAMENTALS OF MUSIC (3)
A study of basic music fundamentals for the non-music major or the beginning music major whose background in music has been minimal.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00
MUT1111 MUSIC THEORY I  (3)
A course on music theory and related keyboard skills. Emphasis on diatonic materials. Pre or Corequisite: MUT1241
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT1112 MUSIC THEORY II  (3)
A continuation of MUT1111. Prerequisite: MUT1111 Corequisite: MUT1242
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT1241 EAR TRAINING AND SIGHT SINGING I  (1)
A course in the development of sight singing and ear training skills. Corequisite: MUT1111
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT1242 EAR TRAINING AND SIGHT SINGING II  (1)
A continuation of MUT1241. Prerequisite: MUT1241 Corequisite: MUT1112
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUT2116 MUSIC THEORY III  (3)
Continuation of MUT1112. Concentration on chromatic materials, musical forms, and 20th century techniques. Prerequisite: MUT1112 Corequisite: MUT2246
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT2117 MUSIC THEORY IV  (3)
Continuation of MUT2116. Prerequisite: MUT2116 Corequisite: MUT2247
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT2246 EAR TRAINING AND SIGHT SINGING III  (1)
A continuation of MUT1242. Prerequisite: MUT1242 Corequisite: MUT2116
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUT2247 EAR TRAINING AND SIGHT SINGING IV  (1)
Continuation of MUT2246. Prerequisite: MUT2246 Corequisite: MUT2117
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MUT2641 JAZZ THEORY AND IMPROVISATION I  (3)
A study of the materials and structure of jazz music and the development of improvisational skills. Prerequisite: MUT1111
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MUT2642 JAZZ THEORY AND IMPROVISATION II  (3)
A study of the materials and structure of jazz music and the development of improvisational skills. Prerequisite: MUT2641
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

MVB1110 BRASS TECHNIQUES  (1)
Basic instruction in brass. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVB1211 TRUMPET  (1)
One half-hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVB1212 FRENCH HORN  (1)
One half-hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVB1213 TROMBONE  (1)
One half-hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVB1214 BARITONE HORN  (1)
One half-hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVB1215 TUBA  (1)
One half-hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVB1311 PRINCIPAL TRUMPET I  (1)
Applied instruction in trumpet for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVB1312 PRINCIPAL FRENCH HORN I  (1)
Applied instruction in French horn for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVB1313 PRINCIPAL TROMBONE I  (1)
Applied instruction in trombone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVB1314 PRINCIPAL BARITONE HORN I  (1)
Applied instruction in baritone horn for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVB1315 PRINCIPAL TUBA I  (1)
Applied instruction in tuba for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVB2221 TRUMPET  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVB2222 FRENCH HORN  (1)
One half hour lesson weekly and one hour practice daily. Corequisite: Any music course (MUx) other than Music
Appreciation.

Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ1213 JAZZ GUITAR / SECONDARY**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ1214 ELECTRIC BASS / SECONDARY**  (1)
One hour lesson per week and two hours of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ1310 PRINCIPAL JAZZ PIANO I**  (1)
Applied instruction in jazz piano for the music principal. One hour lesson per week and two hours of practice daily.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ1311 PRINCIPAL JAZZ VOICE I**  (1)
Applied instruction in jazz voice for the music principal. One hour lesson per week and two hours of practice daily.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ1314 PRINCIPAL ELECTRIC BASS I**  (1)
Applied instruction in electric bass for the music principal. One hour lesson per week and two hours of practice daily.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ2223 BARITONE HORN**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ2224 JAZZ VOICE SECONDARY**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ2225 TUBA**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ2321 PRINCIPAL TRUMPET II**  (1)
Applied instruction in trumpet for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ2322 PRINCIPAL FRENCH HORN II**  (1)
Applied instruction in French horn for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ2323 PRINCIPAL TROMBONE II**  (1)
Applied instruction in trombone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ2324 PRINCIPAL BARITONE HORN II**  (1)
Applied instruction in baritone horn for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ2325 PRINCIPAL TUBA II**  (1)
Applied instruction in tuba for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ3120 JAZZ PIANO / SECONDARY**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ3121 JAZZ VOICE / SECONDARY**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ3122 ELECTRIC BASS / SECONDARY**  (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

**MVJ3220 PRINCIPAL JAZZ PIANO II**  (1)
Applied instruction in jazz piano for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

**MVJ3223 PRINCIPAL JAZZ GUITAR II**  (1)
Applied instruction in jazz guitar for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00
MVJ2324 PRINCIPAL ELECTRIC BASS II  (1)
Applied instruction in electric bass for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVK1011 BASIC PIANO  (1)
Basic instruction in piano. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVK1111 PIANO CLASS  (1)
Basic piano skills for the beginning student. Meets Area 7 A.A. degree general education requirements.
Lec Hrs = 0      Lab Hrs = 32      Oth Hrs = 0      Fees = 0.00

MVK1112 PIANO CLASS II  (1)
Basic piano skills for the intermediate student. Two hours weekly. Meets Area 7 A.A. degree general education requirements.
Prerequisite: MVK1111
Lec Hrs = 0      Lab Hrs = 32      Oth Hrs = 0      Fees = 0.00

MVK1211 PIANO  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVK1213 ORGAN  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVK1311 PRINCIPAL PIANO I  (1)
Applied instruction in piano for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVK1313 PRINCIPAL ORGAN I  (1)
Applied instruction in organ for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVK2221 PIANO  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVK2223 ORGAN  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVK2321 PRINCIPAL PIANO II  (1)
Applied instruction in piano for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVK2323 PRINCIPAL ORGAN II  (1)
Applied instruction in organ for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVO1070 APPLIED MUSIC JAZZ COACHING  (1)
Applied music jazz coaching on the student's instrument. One hour lesson per week and two hours practice daily. By permission of the instructor. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVP1011 BASIC PERCUSSION  (1)
Basic instruction in percussion. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVP1211 PERCUSSION  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVP1311 PRINCIPAL PERCUSSION I  (1)
Applied instruction in percussion for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVP2221 PERCUSSION  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVP2321 PRINCIPAL PERCUSSION II  (1)
Applied instruction in percussion for the music principal. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVS1110 STRING TECHNIQUES  (1)
Basic instruction in strings. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs = 0      Lab Hrs = 16      Oth Hrs = 0      Fees = 100.00

MVS1116 GUITAR CLASS  (1)
Class instruction in beginning classical guitar techniques. Meets Area 7 A.A. degree general education requirements.
Lec Hrs = 0      Lab Hrs = 32      Oth Hrs = 0      Fees = 0.00

MVS1211 VIOLIN  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVS1212 VIOLA  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs = 0      Lab Hrs = 8      Oth Hrs = 0      Fees = 50.00

MVS1213 CELLO  (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.

**MVS2223 CELLO**

One half hour lesson weekly and one hour of practice daily. 

**MVS2224 STRING BASS**

Course scheduled on demand. Corequisite: Any music course (MUx) other than Music Appreciation.

**MVS2321 PRINCIPAL VIOLIN II**

Applied instruction in violin for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.

**MVS2323 PRINCIPAL CELLO II**

Applied instruction in cello for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.

**MVS2324 PRINCIPAL STRING BASS II**

Applied instruction in string bass for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.

**MVS2325 PRINCIPAL SOPHOMORE HARP**

Applied instruction in harp for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.

**MVS2326 GUITAR CLASS**

Class instruction in intermediate guitar techniques.

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**Course Descriptions**

Broward Community College

Catalog 2006-2007

www.broward.edu
MVS226 PRINCIPAL CLASSICAL GUITAR II  
(1) 
Applied instruction in classical guitar for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. 
Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVS1011 BASIC VOICE  
(1) 
Basic instruction in voice. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVV1111 VOICE CLASS  
(1) 
Fundamentals of voice production and building of solo repertoire. Meets Area 7 A.A. degree general education requirements. Term I, II and III. 
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

MVV1212 VOICE  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVV1311 PRINCIPAL VOICE I  
(1) 
Applied instruction in voice for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVV2221 VOICE  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVV2321 PRINCIPAL VOICE II  
(1) 
Applied instruction in voice for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW1110 WOODWIND TECHNIQUES  
(1) 
Basic instruction in woodwinds. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW1211 FLUTE  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW1212 OBOE  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW1213 CLARINET  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW1214 BASSOON  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW1215 SAXOPHONE  
(1) 
Applied instruction in saxophone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW1311 PRINCIPAL FLUTE I  
(1) 
Applied instruction in flute for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW1312 PRINCIPAL OBOE I  
(1) 
Applied instruction in oboe for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW1313 PRINCIPAL CLARINET I  
(1) 
Applied instruction in clarinet for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW1314 PRINCIPAL BASSOON I  
(1) 
Applied instruction in bassoon for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW1315 PRINCIPAL SAXOPHONE I  
(1) 
Applied instruction in saxophone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Corequisite: MVK1211 
Lec Hrs = 0  Lab Hrs = 16  Oth Hrs = 0  Fees = 100.00

MVW2221 FLUTE  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW2222 OBOE  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW2223 CLARINET  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00

MVW2224 BASSOON  
(1) 
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. 
Lec Hrs = 0  Lab Hrs = 8  Oth Hrs = 0  Fees = 50.00
MVW2225 SAXOPHONE (1) One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0 Lab Hrs = 8 Oth Hrs = 0 Fees = 50.00

MVW2321 PRINCIPAL FLUTE II (1) Applied instruction in flute for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

MVW2322 PRINCIPAL OBOE II (1) Applied instruction in oboe for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

MVW2323 PRINCIPAL CLARINET II (1) Applied instruction in clarinet for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

MVW2324 PRINCIPAL BASSOON II (1) Applied instruction in bassoon for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

MVW2325 PRINCIPAL SAXOPHONE II (1) Applied instruction in saxophone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 100.00

NMT1002 INTRODUCTION TO NUCLEAR MEDICINE TECHNOLOGY (3) Introduces the student to the field of nuclear medicine. Review of QPRs and first aid; determine vital signs; how to provide patient care; monitor life support equipment; take and record case histories; and apply universal precautions. Prerequisites: Program Admission. Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT1002L INTRODUCTION TO NUCLEAR MEDICINE LAB (1) Introduces the student to the fundamentals of clinical nuclear medicine primarily through practice of material that is learned in NMT1002. Prerequisite: Program Admission. Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

NMT1312 NUCLEAR MEDICINE RADIATION PROTECTION (3) Designed to assure compliance with local, state, and federal regulations; follow appropriate protection procedures; perform area surveys and wipe tests; decontamination procedures; dispose of radioactive waste; practice personnel monitoring of radiation exposure; darkroom techniques; follow approved procedures for identifying and labeling. Prerequisite: NMT1002 NMT1002L Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT1814 NUCLEAR MEDICINE CLINICAL EDUCATION (3) Continuation of NMT1002L that places the student in a clinical site where they will become acquainted with radiation protection and safety along with patient procedures. Prerequisite: NMT1002 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 50.95

NMT1824 NUCLEAR MEDICINE CLINICAL EDUCATION (2) Continuation of NMT1814. Student will perform routine quality control and quality assurance procedures. Prerequisite: NMT1312 NMT1814 Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 256 Fees = 37.95

NMT2061 NUCLEAR MEDICINE (3) Comprehensive testing, discussions and refinement of knowledge of all aspects of Nuclear Medicine technology complementary to national and state certification and professional competency. Prerequisite: NMT2573 NMT2706L NMT2844 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT2102 NUCLEAR MEDICINE ADMINISTRATION (2) Student will be introduced to the administrative duties required of a Nuclear Medicine Technologist. Some areas that will be covered include patient scheduling; radioisotope ordering; recordkeeping and reporting; scheduling and testing; communication; patient and clinician satisfaction. Prerequisite: NMT2130 NMT2485 NMT2705L Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT2130 NUCLEAR MEDICINE RADIOPHARMACY (3) Student will understand how to maintain radio-pharmaceutical laboratory records and materials; obtain a generator eluate; prepare radio-pharmaceuticals and perform quality control tests; dispose of radioactive waste appropriately; demonstrate an understanding of ordering pharmaceuticals in appropriate dosage and effective time frame. Prerequisite: Program Admission. Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT2485 NUCLEAR MEDICINE METHODOLOGY (3) Study of biological effects associated with exposure to ionizing radiation and an introduction to the fundamentals of physics to include radiation sources, radiation/matter interaction modes, cellular, tissue and the total body biological response patterns. Prerequisite: Program Admission. Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT2534 NUCLEAR MEDICINE INSTRUMENTATION (3) Integrates and correlates the principles of electrical and nuclear physics associated with operation and calibration of radiation detection devices employed in nuclear medicine. Prerequisite: NMT2130 NMT2485 NMT2705L Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT2573 NUCLEAR MEDICINE QUALITY CONTROL/QUALITY ASSURANCE (3) Student will perform quality control testing of imaging systems; calibrate and operate scintillation counters; calibrate and operate gas-filled detectors; perform quality assurance testing of routine imaging and procedures. Prerequisite: NMT2130 NMT2485 NMT2705L Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NMT2705L NUCLEAR MEDICINE LAB I (1) Practical and hands-on approach to Nuclear Medicine Methodology and Nuclear Medicine Instrumentation. Student will utilize the instrumentation involved in delivering nuclear medicine to the patient. Prerequisite: Program Admission.
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Lec Hrs</th>
<th>Lab Hrs</th>
<th>Oth Hrs</th>
<th>Fees</th>
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<tbody>
<tr>
<td><strong>NMT2706L NUCLEAR MEDICINE LABORATORY II</strong></td>
<td>1</td>
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<td>Practical hands-on approach to Quality/Assurance. Student will utilize the</td>
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<td>instrumentation involved in delivering nuclear medicine services to the patient.</td>
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<td>Prerequisite: NMT2130 NMT2485 NMT2705L</td>
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<tr>
<td>Pre or Corequisite: NMT2102 NMT2573 NMT2844</td>
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| **NMT2894 NUCLEAR MEDICINE CLINICAL EDUCATION**                                    | 3       |         |         | 120.95|
| Continuation of NMT1824 with a progression of experience from the elementary      |         |         |         |       |
| aspects to more refined procedures.                                               |         |         |         |       |
| Prerequisite: Program Admission.                                                   |         |         |         |       |
| Pre or Corequisite: NMT2130 NMT2485 NMT2705L                                       |         |         |         |       |

| **NUR1020 NURSING PROCESS I**                                                     | 3       |         |         | 12.00 |
| A theoretical course for the beginning nursing student. Nursing process provides  |         |         |         |       |
| the student with the fundamentals of nursing including such basic skill as health  |         |         |         |       |
| assessment, health teaching, and legal aspects of nursing practice, communication |         |         |         |       |
| techniques, the nursing process, and the role of the nurse as a member of the     |         |         |         |       |
| health care team. This course also includes explanation of specific physiological  |         |         |         |       |
| and psychological human needs as hygiene, sleep and rest, sensory, grief and loss,|         |         |         |       |
| and self-concept and the nurse’s role in assisting a person meet these needs,     |         |         |         |       |
| while sensitive to cultural diversity, human dignity, and development progression. |         |         |         |       |
| Prerequisite: CHM1032 ENC1101                                                      |         |         |         |       |
| Pre or Corequisite: BSC1086 BSC1086L MTB1370                                      |         |         |         |       |

| **NUR1020L NURSING PROCESS I CLINICAL LAB**                                       | 2       |         |         | 120.95|
| A clinical course for the beginning nursing student. Initially skills are learned |         |         |         |       |
| in simulation lab and then the student is introduced to direct patient care in an  |         |         |         |       |
| inpatient setting. The emphasis is on care of the adult experiencing medical/surgical  |         |         |         |       |
| situations. The focus is practical application and transference of the theoretical |         |         |         |       |
| concepts covered in Nursing Process I.                                             |         |         |         |       |
| Corequisite: MTB1370 NUR1020 NUR1210                                              |         |         |         |       |
| Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 112 Fees = 96.95                               |         |         |         |       |

| **NUR1210 NURSING PROCESS II**                                                    | 3       |         |         | 0.00  |
| The second in a series of theoretical courses for the beginning nursing student.   |         |         |         |       |
| This course builds on previously learned concepts and introduces more sophisticated|         |         |         |       |
| nursing interventions related to medication administration, care of patient         |         |         |         |       |
| experiencing alterations in the basic needs of nutrition, elimination, comfort,    |         |         |         |       |
| fluid and electrolyte balance, oxygenation, mobility, asepsis, and care of the     |         |         |         |       |
| surgical patient. Prerequisite: BSC1086 BSC1086L MTB1370 NUR1020                   |         |         |         |       |
| Pre or Corequisite: NUR1020L NUR1210                                              |         |         |         |       |
| Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00                                  |         |         |         |       |

| **NUR1210L NURSING PROCESS II CLINICAL LAB**                                      | 2       |         |         | 0.00  |
| The second in a series of clinical courses building on previously learned concepts |         |         |         |       |
| while incorporating more sophisticated nursing interventions related to medication  |         |         |         |       |
| administration, care of patients experiencing alterations in the basic needs of     |         |         |         |       |
| nutrition, elimination, comfort, fluid and electrolyte balance, oxygenation,       |         |         |         |       |
| mobility, asepsis, and care of the surgical patient. Course activities focus on    |         |         |         |       |
| nursing care of the adult patient experiencing medical/surgical situations.        |         |         |         |       |
| Prerequisite: BSC1086 BSC1086L MTB1370                                           |         |         |         |       |
| Pre or Corequisite: NUR1020L NUR1210                                              |         |         |         |       |

| **NUR1220 HEALTH ALTERATIONS I**                                                  | 3       |         |         | 0.00  |
| Health Alterations I is a course designed to provide the student with knowledge    |         |         |         |       |
| of alterations in the basic needs of nutrition, elimination, metabolism, and        |         |         |         |       |
| elimination throughout the life cycle. The major focus is directed at meeting the   |         |         |         |       |
| health care needs of the adult and pediatric patient through utilization of the     |         |         |         |       |
| nursing process. The student will be expected to integrate principles of anatomy, |         |         |         |       |
| physiology, and pathophysiology of the digestive and genitourinary systems into    |         |         |         |       |
| the nursing process. Components of pharmacology and nutrition will be included in  |         |         |         |       |
| this course. Consideration will also be given to the psychosocial aspects of the    |         |         |         |       |
| wellness/illness continuum. Prerequisite: BSC1086 BSC1086L NUR1210 NUR1210L        |         |         |         |       |
| Pre or Corequisite: NUR1220                                                      |         |         |         |       |
| Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00                                  |         |         |         |       |

| **NUR1220L HEALTH ALTERATIONS I CLINICAL LAB**                                    | 2       |         |         | 0.00  |
| Health Alterations I Clinical Lab is a course designed to provide the student     |         |         |         |       |
| with the opportunity to utilize the nursing process in the care of patients with    |         |         |         |       |
| alterations in the basic needs of nutrition, elimination, metabolism, and          |         |         |         |       |
| elimination throughout the life cycle. The student will be expected to correlate    |         |         |         |       |
| theoretical knowledge and scientific principles with clinical situations,           |         |         |         |       |
| observational experiences, written assignments and performance exams may be included |         |         |         |       |
| in this course. Prerequisite: BSC1086 BSC1086L                                    |         |         |         |       |
| Pre or Corequisite: NUR1220                                                      |         |         |         |       |
| Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 112 Fees = 120.95                              |         |         |         |       |

| **NUR1271 COMM HEALTH: FOUNDATIONS OF COMMUNITY HEALTH**                         | 3       |         |         | 0.00  |
| This course is designed to provide the health professional concepts of community  |         |         |         |       |
| health including basic foundations of health care. Topics to be covered include     |         |         |         |       |
| concepts of health, wellness and illness, philosophy of community health, holistic |         |         |         |       |
| health care, influence of culture, and the role of the health professional.       |         |         |         |       |
| Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 12.00                                  |         |         |         |       |

| **NUR1272 COMMUNITY HEALTH: COMMUNITY HEALTH**                                   | 3       |         |         | 0.00  |
| This course is designed to provide the health professional concepts of community  |         |         |         |       |
| health care and crisis intervention.                                              |         |         |         |       |
| Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 12.00                                  |         |         |         |       |
NUR1273 COMMUNITY HEALTH: HEALTH PROMOTION AND PREVENTION (3)
This course is designed to provide the health professional the concepts of community health. Focus for this course: risk appraisal and management, strategies in promoting health, techniques for client education, marketing, evaluation, and problems of the elderly.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 12.00

NUR1310 PEDIATRIC NURSING (3)
This pediatric course is designed to provide an understanding of growth and development through the stages of childhood and the application of the nursing process to these stages. Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1310L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR1310L PEDIATRIC NURSING LAB (2)
This clinical course provides the student with an understanding of growth and development through the stages of childhood and the application of the nursing process to these stages. Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1310
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 112 Fees = 120.95

NUR1420L TRANSITION HEALTH CARE OF WOMEN CLIENT (1)
This clinical course is for the LPN student and will enable students to apply the nursing process in providing nursing care to the maternity patient, her family, and the fetus/newborn during antepartal, intrapartal and postpartal periods. Consideration is given to the multiple factors which complicate the normal physiological or psychological process of the childbearing period. Pre or Corequisite: NUR1421
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 112 Fees = 122.95

NUR1421 HEALTH CARE OF WOMEN (3)
Health care of women is a course designed to provide the student with the knowledge of the reproductive system and health care needs of women throughout the life cycle. The major focus is directed to the childbearing portion of the life cycle. The student is expected to utilize the nursing process in providing nursing care to the maternity patient, her family, and the fetus/newborn during antepartal, intrapartal and postpartal periods. Consideration is given to the multiple factors which complicate the normal physiological or psychological process of the childbearing period. Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1421L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 56 Fees = 122.95

NUR1421L HEALTH CARE OF WOMEN CLINICAL LAB (2)
Health Care of Women is a clinical course designed to provide the student with the knowledge of the reproductive system and health care needs of women throughout the life cycle. The major focus is directed to the childbearing portion of the life cycle. The student is expected to utilize the nursing process in providing nursing care to the maternity patient, her family, and the fetus/newborn during antepartal, intrapartal and postpartal periods. Consideration is given to the multiple factors which complicate the normal physiological or psychological process of the childbearing period. Pre or Corequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1421L
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 112 Fees = 120.95

NUR1500L TRANSITION PSYCHIATRIC NURSING CLINICAL (1)
This clinical course provides the LPN student with a definition and understanding of the psychiatric patient. The nursing process is utilized to present pathological condition. Therapeutic modalities are included. Prerequisite: NUR1220
Pre or Corequisite: NUR1524
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 56 Fees = 110.95

NUR1524 NURSING CARE OF THE PSYCHIATRIC PATIENT (3)
This course provides the student with a definition and understanding of psychiatric nursing. The nursing process is utilized to present pathological conditions. Therapeutic modalities are included. Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1524L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR1524L NURSING CARE OF THE PSYCHIATRIC PATIENT (2)
This course provides the student with a definition and understanding of psychiatric nursing. The nursing process is utilized to present pathological conditions. Therapeutic modalities are included. Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1524
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 112 Fees = 120.95

NUR1731L TRANSITION PEDIATRIC NURSING CLINICAL (1)
This course provides the student with an understanding of growth and development through the stages of childhood and the application of the nursing process through these stages. Prerequisite: NUR2000L NUR2020
Pre or Corequisite: NUR1731
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 56 Fees = 122.95

NUR2000L TRANSITION NURSING I CLINICAL LAB (2)
The student shall be responsible for providing care of a selected group of patients, being aware of legal and ethical issues pertinent to their care and effecting change as necessary. It will be essential for the student to examine his/her own values and methods of communication in attempting to problem-solve patient situations. Observational experiences, written assignments, and performance exams may be included in this course. Prerequisite: BSC1086 BSC1086L CHM1032 ENC1101
Pre or Corequisite: MTB1370 NUR2020
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 112 Fees = 123.10

NUR2020 TRANSITION NURSING I (2)
This theoretical course for the LPN covers the following concepts: nursing process, legal aspects of nursing, communication techniques, computer concepts, and the role of the ADN registered nurse. Prerequisite: BSC1086 BSC1086L CHM1032 ENC1101
Pre or Corequisite: MTB1370 NUR2020L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2062 HEALTH ASSESSMENT OF THE ADULT CLIENT (5)
This course focuses on assessment of the adult client as he or she fluctuates on the wellness illness continuum. Techniques of physical assessment will be systematically taught in a head to toe approach. The skill of concisely recording the findings will also be included. 80 hrs lec. Term I and II. Lec Hrs = 80 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2201 TRANSITION NURSING II CLINICAL LAB (2)
Clinical Lab will provide the student with the opportunity to apply the nursing process in the clinical area to adult patients with alterations in mobility, skin integrity, neuro-regulatory...
This theoretical course for the LPN covers the following concepts: application of the nursing process in the care of clients with alterations of circulatory, respiratory, urinary, and endocrine functions.

Pre or Corequisite: NUR2201
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 112  Fees = 97.95

NUR2202 TRANSITION NURSING III
This course will be provided in a local hospital where the entry-level critical care nurse begins skill building and bedside experiences for the R.N. in providing patient care, team leading, and exposure to nursing care in the specialty areas.

Pre or Corequisite: NUR2202L
Lec Hrs = 80  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2202L TRANSITION NURSING III CLINICAL LAB
This clinical lab for the LPN will provide the opportunity to apply the nursing process in the care of adult patients with the alterations of circulatory, respiratory, urinary, and endocrine functions.

Pre or Corequisite: NUR2201
Lec Hrs = 80  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2221 HEALTH ALTERATIONS II
In this course the student will be responsible for principles of alteration in mobility, skin integrity, and neurological functioning. Concepts of rehabilitation will be emphasized.

Pre or Corequisite: NUR2221
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2221L HEALTH ALTERATIONS II CLINICAL LAB
In this course the student will be responsible for applying the nursing process to assigned patients with alterations in mobility, skin integrity and neurological functions. This experience will require both clinical and written assignments. Evaluation will be based on their application of the nursing process to assigned patients.

Pre or Corequisite: NUR2221
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2222 HEALTH ALTERATIONS III
This course is designed to provide the student with the knowledge necessary to implement the nursing process on patients with cardiopulmonary dysfunction throughout the life cycle. The focus is the pathophysiology, common medical diagnostic and treatment modes, nursing assessments and interventions necessary to treat those patients. The students will be responsible for reviewing anatomy and physiology, pharmacology, pediatric and psychiatric principles as they apply to this course.

Pre or Corequisite: NUR2222
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2222L HEALTH ALTERATIONS III CLINICAL LAB
In this course the student will be responsible for applying the nursing process to assigned patients with alterations in cardiopulmonary functioning. This experience will require both clinical and written assignments. Evaluation will be based on the application of the nursing process to assigned patients.

Pre or Corequisite: NUR2222
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2270 REFRESHER NURSE UPDATE
This course has been developed to meet the needs of the emergency department or critical care nurse in providing patient care, team leading, and exposure to nursing care in the specialty areas.

Pre or Corequisite: NUR2270
Lec Hrs = 128  Lab Hrs = 0  Oth Hrs = 0  Fees = 8.95

NUR2270L REFRESHER NURSE UPDATE PRACTICUM
This course provides the opportunity for practice of basic skills needed in basic emergency nursing care and the application of theory in the laboratory, community emergency departments and emergency medical services mobile vehicles. Prerequisites: Florida RN License, Basic Life Support course (Healthcare Provider Level).

Corequisite: NUR2270L
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2274 EMERGENCY NURSING
This course has been developed to meet the needs of the emergency department or critical care nurse in providing patient care, team leading, and exposure to nursing care in the specialty areas. It is not designed for nurses currently working in another area. It is not designed for nurses currently working in critical care. This course is designed for the practicing RN who is interested in moving from the acute care area or long term care setting into home health nursing. This course is open to registered nurses with at least one year acute care experience who are currently employed.

Pre or Corequisite: NUR2275
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

NUR2275 TRANSITION TO HOME HEALTH NURSING
This course is designed for the practicing RN who is interested in moving from the acute care area or long term care setting into home health nursing. This course is open to registered nurses with at least one year acute care experience who are currently employed or who have been employed within the past six months. Prerequisite: Florida Nursing License, minimum 1 year current acute experience.

Pre or Corequisite: NUR2275
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 20.95

NUR2292 INTRODUCTION TO CRITICAL CARE NURSING
This course is designed for the registered nurse desiring to enter the area of critical care and who is currently working in another area. It is not designed for nurses currently working in critical care. The course will include topics related to intensive nursing care of patients with pulmonary, neurology, cardiovascular, renal, and metabolic disorders, as well as psychological needs of critically ill patients. Prerequisites: Florida RN License; Basic Life Support course (Healthcare Provider Level); Basic Arrhythmia course or challenge.

Corequisite: NUR2292L
Lec Hrs = 128  Lab Hrs = 0  Oth Hrs = 0  Fees = 8.95

NUR2292L CRITICAL CARE NURSING CLINICAL LAB
This clinical course will be provided in a local hospital where the entry-level critical care nurse begins skill building and bedside activities with an assigned preceptor to correlate to didactic mechanisms, and metabolic/endocrine/gastrointestinal functions. Prerequisite: BSC1086 BSC1086L NUR2000L NUR2020
Pre or Corequisite: NUR2201
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 112  Fees = 97.95
theory. The RN will incorporate nursing assessment, implementation and interventions related to the critical care patient from admission to discharge or end-of-life. Skill building activities focus on critical care policies, procedures and protocols required for critical care nursing. Bedside activities focus on organizational skills in performing patient assessment, interventions and documentation into the medical record. Pre-Requisite: Florida RN License; Basic Life Support course (Healthcare Provider Level); Basic Arrhythmia course or challenge. Corequisite: NUR2292
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 240 Fees = 20.95

NUR2293 BASIC PERIOPERATIVE NURSING
This program is designed for the learner who is a registered nurse with minimal or no operating room experiences. The goal of the program is to prepare the R.N. for initial employment as an effective member of the surgical team in both the circulating and scrub roles, thus providing quality perioperative nursing care. This theory course will be taught concurrently with the basic perioperative nursing practicum. Pre or Corequisite: NUR2293L
Lec Hrs = 80 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

NUR2293L BASIC PERIOPERATIVE PRACTICUM
This course is designed to provide laboratory practice and clinical experience for nursing in the operating room, community surgical centers or clinics. Pre or Corequisite: NUR2293
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 160 Fees = 45.95

NUR2294 CORONARY CARE NURSING
A comprehensive cardiac course to review and add to the scientific knowledge needed by the coronary care nurse in their practice. Specific skills and competencies shall be developed in the use of equipment and methods of care. Guidelines shall be presented for guiding other members of the health care team in the effective application of the concepts of coronary care. Designed to foster an attitude of striving for excellence in knowledge. Methods and techniques were developed by the Florida Regional Medical Program as a standard. A Coronary Care course certificate is awarded upon successful completion. This is for the professional nurse. 144 hrs. Lec.
Lec Hrs = 144 Lab Hrs = 0 Oth Hrs = 0 Fees = 12.00

NUR2297 CARDIAC NURSING: BASIC ARRHYTHMIA
This course will be taught on the Internet in the Virtual Classroom-Web CT and is designed to enhance learning for the licensed health care professionals using a non-trditional teaching format. Two scheduled classroom sessions will consist of the Orientation to Web-based ECG learning and the written-short answer Final Protored ECG Exam. The web-based instruction will provide basic yet comprehensive information in the fundamentals of cardiac arrhythmias. Content will include anatomy and physiology, basic rate and rhythm calculations, cardiac monitoring as well as the identification of non-lethal and lethal producing arrhythmias. Prerequisites: Florida RN License; Basic Life Support course (Healthcare Provider Level). Corequisite: NUR2297L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2297L CARDIAC NURSING: BASIC ARRHYTHMIA
The clinical course will be provided in a local hospital where the new telemetry nurse will perform the role of monitor technician, to reinforce the didactic concepts learned in the Basic Arrhythmia course. The RN will incorporate nursing interventions related to telemetry patients from the admission process, trouble shooting ECG transmission, to medication administration. Course activities focus on telemetry/progressive care nursing of the adult patient requiring cardiac monitoring. Prerequisites: Florida RN license, Basic Life Support course (Healthcare Provider Level). Corequisite: NUR2297
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 80 Fees = 20.95

NUR2391 CARE OF THE CRITICALLY ILL NEWBORN
This course will provide an introduction to the basic needs of the sick or compromised infant and the rationale/theory behind prescribed treatments and care. Units include: thermal environment, assessment, CPR, respiratory disorders, hematological disorders, maternal infant bonding, the dying infant, GI disturbances, oxygen administration, neonatal sepsis, blood gas analysis, cardiac anomalies, nutrition, pharmacology, lab studies, seizure disorders and mechanical ventilation. (target audience: term and level II nursery personnel, labor and delivery nurses and nurses seeking entry into neonatal areas.) Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 64 Fees = 27.00

NUR2392 CRITICAL CARE OF THE PEDIATRIC CLIENT
This 5 credit course is designed to prepare the professional nurse to enter into practice in the pediatric intensive care setting. The program focuses on assessment skills of the various body systems, pharmacology, and nursing management of the critically ill child. Prerequisite: current Florida nursing license, BCLS-C (Basic rescuer certification). Lec Hrs = 80 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2801 TRANSITION NURSING IV
This theoretical course for the LPN covers the following concepts: leadership, team management, legal ethical principles, problem solving techniques, interviewing techniques and emergency nursing. Pre or Corequisite: NUR2801L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2801L TRANSITION NURSING IV CLINICAL LAB
This course for the LPN provides clinical opportunities to develop leadership skills, team management skills, and legal, ethical responsibilities. Pre or Corequisite: NUR2801
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 112 Fees = 123.10

NUR2810 TRENDS, PRACTICES, AND ROLES
This course is designed to provide the knowledge necessary to move from the role of a student to that of a graduate nurse. The focus is directed toward the legal, ethical and professional responsibilities of the nurse in managerial and coordinating roles. Pre requisite: NUR2222 NUR2222L
Pre or Corequisite: NUR2810
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2810L TRENDS, PRACTICES, AND ROLES CLINIC
This course is designed to provide the student with the knowledge necessary to implement the nursing process on patients with cardiopulmonary dysfunctions throughout the life cycle. The focus is the pathophysiology, common medical, diagnostic and treatment modes, nursing assessments and interventions necessary to treat those patients. The students will be responsible for reviewing anatomy and physiology, pharmacology, pediatric and psychiatric principles as they apply to this course. Pre requisite: NUR2222 NUR2222L
Pre or Corequisite: NUR2810L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 120.95

NUR2930 COMPARATIVE HEALTH CARE SYSTEMS
This course provides an opportunity for health care professionals and educators to compare health care systems of other countries with that of the United States. Health care systems, variation in patient care, education of health practitioners facilities and the role of international agencies will be studied. Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

NUR2940 NURSING TRANSITION FOR THE NEW NURSES
This course is for the new registered nurse who seeks to gain additional theoretical experience in the application of nursing knowledge in the care of the acutely ill hospitalized patient. Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
NUR2940C RESPIRATORY CARE CROSS TRAINING FOR NURSES (12)
This course will provide nurses with essential principles of respiratory care, to function in their new roles as a multiskilled healthcare professional.
Lec Hrs = 60 Lab Hrs = 0 Oth Hrs = 168 Fees = 27.00

NUR2941C RESPIRATORY CARE FOR NURSES: OXYGEN (2)
This course will teach the students safe handling of oxygen equipment along with a working knowledge of oxygen analyzers. It will also teach proper administration of medications via Twin Jet nebulizer, metered dose inhaler (MDI) and incentive spirometry treatments.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 28 Fees = 52.95

NUR2941L NURSING TRANSITION FOR THE NEW NURSES (1)
This course is for the new registered nurse who seeks to gain additional clinical experience in the application of nursing knowledge in the care of the acutely ill hospitalized patient. Emphasis in the clinical area will be on critical thinking in the decision making process.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 20.95

NUR2942C RESPIRATORY CARE FOR NURSES: CHEST (2)
This course will demonstrate safe and effective technique in the performance of I.P.P.B. therapy as well as CPT treatments, including manual and mechanical techniques. It will also teach the students to demonstrate proficiency in adjunct techniques of CPT.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 36 Fees = 27.95

NUR2943C RESPIRATORY CARE FOR NURSES: TREATMENTS (1)
This course will focus on the proper use of ultrasonic nebulizers, specimen collection and the safe administration of aerosolize medication.
Lec Hrs = 8 Lab Hrs = 0 Oth Hrs = 20 Fees = 0.00

NUR2944C RESPIRATORY CARE FOR NURSES: PROTOCOLS (2)
This course will focus on respiratory care protocols, suctioning and the proper maintenance of tracheostomy and endotracheal tubes.
Lec Hrs = 16 Lab Hrs = 37 Oth Hrs = 0 Fees = 27.95

NUR2945L EMERGENCY NURSING: CLINICAL PRACTICUM (1)
The clinical course will be provided in a local hospital and pre-hospital environment. The course is offered for the entry-level emergency department (ED) registered nurse (RN) who requires additional remediation or for a returning nurse who needs minimal skill building and emergency department activities with an assigned preceptor to correlate didactic theory. The RN will incorporate nursing assessment, implementation and interventions related to the emergency department policies, procedures and protocols required for ED nursing. Emergency department activities focus on organizational skills in performing patient assessments, interventions and documentations in the medical record.
Corequisite: NUR2274
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 80 Fees = 20.95

NUR2946 GRADUATE NURSE INTERNSHIP (1)
This course will cover the theory application of skills in the care of patients. The content will cover content beyond basic educational offerings to intern nurses.
Pre or Corequisite: NUR2946L
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

NUR2946L NURSE INTERNSHIP CLINICAL LAB (6)
This course will cover the clinical application of skills in the care of patients. The content will cover content beyond basic clinical experiences to intern nurses.
Pre or Corequisite: NUR2946
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 192 Fees = 22.95

NUR2947L CRITICAL CARE NURSING: CLINICAL PRACTICUM (1)
The clinical course will be provided in a local hospital where the entry level critical care nurse can receive remediation of an returning nurse who needs minimal skill building and bedside activities with assigned preceptor to correlate didactic theory. The RN will incorporate nursing assessment, implementation and interventions related to the critical care patient from admission to discharge or end-of-life. Skill building activities focus on critical care policies, procedures and protocols required for critical care nursing. Bedside activities focus on organizational skills in performing patients assessments, interventions and documentation in the medical record.
Corequisite: NUR2292
Lec Hrs = 80 Lab Hrs = 0 Oth Hrs = 0 Fees = 20.95

OCA0450 SPREADSHEET AND DATABASE APPLICATION (2)
The purpose of this course is to provide an introduction to computers and their significance in today’s business workplace. An emphasis is placed on the use of spreadsheet software and its importance in compiling financial reports and statistical data. This course also acts as a foundation for all business education programs as it incorporates keyboarding, mathematical calculations, consumer economics, human relations, and job application procedures.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 36.00

OCA0451 SPREADSHEET AND DATABASE APPLICATION (2)
The purpose of this course is to provide an introduction to computers and to develop entry- level skills for computer-related occupations using spreadsheets and databases and text-editing software. This course also acts as a foundation for all business education programs as it incorporates keyboarding, mathematical calculations, consumer economics, human relations, and job application procedures.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 36.00

OCE1001 INTRODUCTORY OCEANOGRAPHY (3)
An integration of the four classic disciplines of the ocean sciences: geological oceanography, chemical oceanography, physical oceanography, and biological oceanography. Course will stress the interdisciplinary nature of the ocean sciences and focus on the basic principles governing these disciplines, and the effect of each on man. Meets Area 4B general education requirements for the A.A. degree.
Corequisite: NUR2274
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 80 Fees = 20.95

OCE1001L OCEANOGRAPHY LABORATORY (1)
Laboratory methods for the Ocean Sciences. Meets area 4C general education requirements for the A.A. degree. One, two-hour laboratory weekly. Special fee is charged.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 20.00

OFT0010 OFFICE SKILLS TRAINING I (2)
The purpose of this course is to prepare students for employment as general office clerks, typists, file clerks, office systems clerks, government records clerks, and clerical office trainees. Topics include typing, filing, calculation skills, telephone skills, and word processing.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 36.00

OFT0011 OFFICE SKILLS TRAINING II (2)
The purpose of this course is to prepare students for employment as clerk typists, clerks, information clerks, data
This course reviews the techniques needed in a clinical environment for the collection of patient case history, entrance visual acuity, basic visual skills of ocular motility and accommodation, color discrimination, depth perception and binocular vision. Emphasis is placed on medical terminology as it relates to the visual system.

Pre or Corequisite: OPT1110 OPT1110L OPT1210
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1450 OPHTHALMIC DISPENSING (2)
This course reviews the theory and terminology of ophthalmic frame materials, multifocal lenses, including progressive power and occupational bifocals and high index lenses. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for the proper frame and lens selection are highlighted.

Prequisite: OPT1150 OPT1150L OPT2090
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1450L OPHTHALMIC DISPENSING LAB (2)
This course provides the opportunity for students to practice ophthalmic dispensing. Measurement and adjusting ophthalmic frame materials, multifocal lens, occupational bifocals, high index lenses and low vision devices will be emphasized. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for the proper frame and lens selection are highlighted.

Prequisite: OPT1150 OPT1150L OPT2090 OPT2375
Pre or Corequisite: OPT1450 OPT2500 OPT2500L OPT2800L
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 10.00

OPT2060 OPHTHALMIC MANAGEMENT POLICY AND PROCEDURES (3)
This course provides a review of procedures and terminology in correspondence, legal and ethical principles, inter-and intra-professional relationships, and retail office management. The history of opticianry, optometry and ophthalmology is traced. Special emphasis is on a comprehensive review of the curriculum. The student will be required to present oral and written reports.

Prequisite: OPT2800L OPT2875
Pre or Corequisite: OPT2876
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2222 OCULAR PATHOLOGY AND PHARMACOLOGY (2)
Theory and terminology of visual and systemic disorders that effect vision. Introduces the student to the general concepts of disease and the processes by which diseases evolve. The specific disorders that may occur in various parts of the eye and ocular adnexa are discussed in detail. The student will become familiar with the Physicians Desk Reference (PDR), diagnostic, and therapeutic pharmaceutical agents used in vision care.

Corequisite: OPT2350, OPT2801
Prequisite: OPT2375 OPT2800L
Pre or Corequisite: OPT2350 OPT2800L
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2223 OCULAR PATHOLOGY AND PHARMACOLOGY I (2)
Continuation of OPT2222: Theory and terminology of visual and systemic disorders that effect vision. Introduces the student to the general concepts of disease and the processes by which diseases evolve. The specific disorders that may occur in various parts of the eye and ocular adnexa are discussed in detail. The student will become familiar with diagnostic and therapeutic pharmaceutical agents used in vision care.

Prequisite: OPT2222
Pre or Corequisite: OPT2351 OPT2802
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2287 OPHTHALMIC MEDICAL PRACTICUM 3 (4)
Externship in an approved ophthalmic practice. This is the most advanced clinical education and successful completion will ensure that the student is competent upon graduation to assume all of the responsibilities required of an Ophthalmic Technician. The student will enhance their knowledge of advanced duties and responsibilities an ophthalmic medical assistant, keyboarding clerks, or to provide supplemental training for persons previously or currently employed in this occupational area.

Lec Hrs = 25  Lab Hrs = 50  Oth Hrs = 0  Fees = 36.00

OPT1110 PHYSICAL AND GEOMETRIC OPTICS (3)
This course provides a review of light energy as it passes through air, plastic, glass and water with emphasis on how light is modified by prisms and curved lens surfaces. These principles relate to the effect these ophthalmic devices have in correcting the errors of human vision.

Pre or Corequisite: OPT1110 OPT1210 OPT1330
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1110L PHYSICAL AND GEOMETRIC OPTICS LAB (1)
This course provides the opportunity for students to demonstrate, measure and explore the behavior of light energy as it passes through prisms and curved lens surfaces. Students will demonstrate the principles of ophthalmic devices and how they correct the errors of human vision.

Pre or Corequisite: OPT1110L OPT1210 OPT1330
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00

OPT1150 OPHTHALMIC LENSES (2)
Characteristics of single vision and multifocal lens reference points for proper lens selection to meet visual needs of the patients. Emphasis is on accurate positioning of the optical centers and selected multifocal addition design. ANSI and F.D.A. standards; prescription ordering; verification procedures; and absorptive lenses are presented. Low vision devices and occupational specialty lenses will be discussed.

Prequisite: OPT1110 OPT1110L OPT1210
Corequisite: OPT1150L OPT2090
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1150L OPHTHALMIC LENSES LAB (2)
This course provides the opportunity for students to gain hands on experience in the accurate positioning of the optical centers and selected multifocal addition designs. ANSI and F.D.A. standards, prescription ordering and verification procedures will be applied to patient jobs. Emphasis will be placed on the use of the manual and automated Lensometer. Fitting of low vision devices and occupational specialty lenses will be discussed.

Prequisite: OPT1110 OPT1110L OPT1210
Pre or Corequisite: OPT1150
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 10.00

OPT1210 ANATOMY AND PHYSIOLOGY OF THE EYE (3)
This course provides a review of the structure and function of the systems of the human body, emphasizing the anatomy of the human eye. Visual recognition of common eye disorders and refractive disorders are discussed.

Pre or Corequisite: OPT1110 OPT1110L OPT1330
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1330 ORIENTATION TO VISION CARE (2)
This course reviews the techniques needed in a clinical environment for the collection of patient case history, entrance visual acuity, basic visual skills of ocular motility and accommodation, color discrimination, depth perception and binocular fusion. Emphasis is placed on medical terminology as it relates to the visual system.

Pre or Corequisite: OPT1110 OPT1110L OPT1210
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1450 OPHTHALMIC DISPENSING (2)
This course reviews the theory and terminology of ophthalmic frame materials, multifocal lenses, including progressive power and occupational bifocals and high index lenses. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for the proper frame and lens selection are highlighted.

Prequisite: OPT1150 OPT1150L OPT2090
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT1450L OPHTHALMIC DISPENSING LAB (2)
This course provides the opportunity for students to practice ophthalmic dispensing. Measurement and adjusting ophthalmic frame materials, multifocal lens, occupational bifocals, high index lenses and low vision devices will be emphasized. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for the proper frame and lens selection are highlighted.

Prequisite: OPT1150 OPT1150L OPT1330
Pre or Corequisite: OPT1450 OPT2500 OPT2500L OPT2800L
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 10.00
Office. Emphasis will be placed on continuing the development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation. Skills in assisting in triage and laboratory diagnosis of eye disease, and outpatient surgical assisting will be obtained. This course is required to fulfill requirements for clinical experience by the national accrediting agencies.

Prerequisite: OPT2223 OPT2351 OPT2800L

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 80  Fees = 20.95

OPT2351 ADVANCED CLINICAL PROCEDURES II

Continuation of OPT2350. Students will be introduced to the theory and terminology of Topography, Tomography: Flourescein Angiography, advanced visual fields, outpatient surgical assisting, and other advanced ophthalmic medical procedures.

Prerequisite: OPT2223 OPT2350 OPT2800L

Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2375 REFRACTOMETRY

This course reviews the theory and terminology used in determining the powers of corrective lenses in relation to a patient's refractive error. Emphasis will be placed on the phoroptor, retinoscope, and automated refraction instruments. Problems associated with the change in refractive powers will also be discussed.

Prerequisite: OPT1110 OPT1110L OPT1210

Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2420 EYEWEAR FABRICATION I

This course presents a review of the theory of ophthalmic surfacing and finishing procedures. Students acquire knowledge to arrange single vision and multifocal lenses, use sensometers and lens clocks, operate project-o-markers for lens layout, select or fabricate frame patterns, and utilize several systems for surfacing and edging lenses for ophthalmic frames.

Prerequisite: OPT2500 OPT2800L

Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2420L EYEWEAR FABRICATION I LAB

In this laboratory course students will gain practical experience in ophthalmic surfacing and finishing procedures. Students will fabricate single vision and multifocal lenses: use sensometers and lens clocks; operate project-o-markers for lens layout; select or fabricate frame patterns; and utilize several systems for surfacing and edging lenses for ophthalmic frames.

Prerequisite: OPT2500L OPT2879

Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 50.00

OPT2421 EYEWEAR FABRICATION II

Advanced techniques in measurement, fabrication and verification of single vision and multifocal lenses. Theory of ophthalmic surfacing and finishing procedures from written specifications ensuring that current ANSI and FDA standards are exceeded.

Prerequisite: OPT2420 OPT2420L

Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2421L EYEWEAR FABRICATION II LAB

Laboratory for OPT2421. Students will fabricate eyewear for the patients of the Vision Care Clinic using advanced techniques in measurement, fabrication and verification of single vision and multifocal lenses. Advanced techniques in the operation and maintenance of manual and computerized equipment.

Prerequisite: OPT2420 OPT2420L

Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 50.00

OPT2460 OPHTHALMIC DISPENSING CLINIC I

Development of skills in the fitting and dispensing of ophthalmic lenses. Students will work under the close supervision of clinical staff in dispensing glasses to patients of the Vision Care Clinic. Emphasis will be placed on techniques used to dispense new technology in ophthalmic frame materials; multifocal lenses including progressive power and occupational bifocals; and high index lenses. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for proper frame and lens selection is highlighted.

Prerequisite: OPT2375 OPT2500 OPT2800L

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 80  Fees = 12.00

OPT2461 OPHTHALMIC DISPENSING CLINIC II

This is a continuation of OPT2493L. It involves advanced skills in the fitting and dispensing of ophthalmic lenses. Students will work under the supervision of clinical staff in dispensing glasses to patients of the Vision Care Clinic. Students will practice advanced techniques used to dispense new technology in ophthalmic frame materials, multifocal lenses including progressive power and occupational bifocals, high index lenses, and low vision devices.

Corequisites: OPT2421, OPT2831, OPT2876.

Prerequisite: OPT2420 OPT2460 OPT2875

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 120  Fees = 8.95

OPT2500 CONTACT LENS THEORY

This course provides a review of the theory and terminology of contact lenses including fitting, application and removal procedures, care of soft and hard lenses, verification of contact lens prescription and "in-office" modification of contact lenses.

Prerequisite: OPT1150 OPT1450

Pre or Corequisite: OPT2500L

Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OPT2500L CONTACT LENS THEORY LAB

This course provides a review of the practical procedures used to apply technical skills of contact fitting, application and removal procedures, care of soft and hard lenses, verification of contact lens prescription and "in-office" modification of contact lenses.

Prerequisite: OPT1150L OPT1450L

Pre or Corequisite: OPT2500

Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 25.00

OPT2800L VISION CARE CLINIC I

This course provides a review of the practical procedures used to apply technical skills of contact fitting, application and removal procedures, care of soft and hard lenses, verification of contact lens prescription and "in-office" modification of contact lenses.

Prerequisite: OPT1150 OPT1150L OPT1450L

Pre or Corequisite: OPT2375 OPT2500L OPT2879

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 80  Fees = 20.95

OPT2801L VISION CARE CLINIC II

Development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation. The student will follow the patient through the entire cycle of vision care under the supervision of the clinical staff.

Prerequisite: OPT2375 OPT2500L OPT2800L

Pre or Corequisite: OPT2222 OPT2350 OPT2940

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 160  Fees = 20.95
OPT2802 VISION CARE CLINIC III
Continuation of OPT2801L: Development of additional skills in tonometry, visual fields, A and B scan ultrasound, photo-documentation, vision therapy, low vision, aseptic techniques, eye emergencies, assisting in triage and laboratory diagnosis of eye disease, and outpatient surgical assisting. The student will follow the patient through the entire cycle of vision care under the supervision of the clinical staff.
Prerequisite: OPT2222 OPT2350 OPT2801L OPT2940
Pre or Corequisite: OPT2223 OPT2351 OPT2941
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 160  Fees = 20.95

OPT2830L CONTACT LENS CLINIC I
Assist eye care specialists in the fitting and follow-up care of rigid and soft contact lenses for patients referred from the Vision Care Clinic. Familiarization with over-refraction, instructions for lens handling, cleaning, care and storage, and basic contact lens pathology.
Prerequisite: OPT2500 OPT2500L OPT2800L
Pre or Corequisite: OPT2420 OPT2460 OPT2875
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 120  Fees = 20.95

OPT2830L CONTACT LENS CLINIC II
This course involves the use of contact lens instruments to confirm all parameters for replacement lenses. Particular attention is given to the patient who is having problems with contact lenses after long-term wear due to corneal changes and sensitivity to solutions. Advanced over-refraction and contact lens fitting procedures are practiced.
Prerequisite: OPT2420L OPT2460 OPT2830L
Pre or Corequisite: OPT2421 OPT2461 OPT2876
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 80  Fees = 20.95

OPT2875 OPHTHALMIC DISPENSING PRACTICUM I
In this laboratory course students will fabricate eyewear for the patients of the Vision Care Clinic using advanced techniques in measurement, fabrication and verification of single vision and multifocal lenses. Advanced techniques in the operation and maintenance of manual and computerized equipment.
Prerequisite: OPT2375 OPT2500 OPT2800L OPT2879
Pre or Corequisite: OPT2420 OPT2420L OPT2830L
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 120  Fees = 20.95

OPT2876 OPHTHALMIC DISPENSING PRACTICUM II
This is an externship in an approved retail ophthalmic dispensing establishment involving frame styling, ordering of appropriately designed lenses, adjustment, repair and dispensing of eyewear. The student will gain a working knowledge of administrative management procedures of the practice.
Prerequisite: OPT2420 OPT2830L OPT2875
Pre or Corequisite: OPT2060 OPT2421 OPT2461
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 120  Fees = 20.95

OPT2879 REFRACTOMETRY PRACTICUM
Practicum for OPT2375. Practical procedures used in determining the powers of corrective lenses in relation to a patient's refractive error. The student will learn to use the Phoroptor, retinoscope, and automated refraction instruments in determining the patient's subjective and objective refraction. Problems associated with the change in refractive powers will be demonstrated.
Prerequisite: OPT1110 OPT1110L OPT1210 OPT1330
Pre or Corequisite: OPT1150 OPT1150L OPT1330 OPT2375
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 96  Fees = 20.95

OPT2910 DIRECTED RESEARCH
Students will be introduced to the theory and terminology of medical research. Under the direct supervision of the clinical staff the student will select an area to do extended research. The areas may include but are not limited to, assisting, and other advanced ophthalmic medical topics.
Prerequisite: OPT2223 OPT2350 OPT2801L OPT2940
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 40  Fees = 0.00

OPT2940 OPHTHALMIC MEDICAL PRACTICUM
Extemship is an approved ophthalmological practice. The student will gain a working knowledge of the basic duties and responsibilities of a technician in a medical office. Emphasis will be placed on the development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation.
Prerequisite: OPT2800L OPT2500 OPT2879
Pre or Corequisite: OPT2222 OPT2350 OPT2801L
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 160  Fees = 20.95

OPT2941 OPHTHALMIC MEDICAL PRACTICUM II
Extemship is an approved ophthalmological practice. The student will gain a working knowledge of advanced and more complex duties and responsibilities of a technician in an ophthalmic medical office. Emphasis will be placed on continuing the development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation. Skills in assisting in triage and laboratory diagnosis of eye disease, and outpatient surgical assisting will be obtained.
Prerequisite: OPT2222 OPT2350 OPT2801L OPT2940
Pre or Corequisite: OPT2223 OPT2351 OPT2802
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 200  Fees = 20.95

ORH1000 HORTICULTURAL BIOLOGY
An introduction to the disciplines involved in the broad field of horticultural plant and animal taxonomy, morphology, anatomy and physiology. Course provides fundamental processes as they relate to plant growth, pests, production maintenance, and planting will be stressed.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ORH1000L HORTICULTURAL BIOLOGY LAB
This two hour lab supports the lecture of ORH1000 and is required for all Landscape Technology students. Lab content is practical and oriented to existing situations encountered in the various horticultural professions and is primarily an overview of the plant and animal kingdoms with specific attention given to groups important to horticulture.
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

ORH1523 NATIVE UPLAND PLANTS
This course includes the identification of approximately 100 plants and plant groups native or naturalized in the higher ground habitats of South Florida. The application of these plants as in-situ, mitigation or landscape materials in the ecological and esthetic situations of this area will be an additional objective. Most instruction will be done in the field utilizing local passive- and active-use parks. Completion of any landscape plant identification class, ORH1524, ORH1510, ORH2511 ORH2512 or ORH1101, is strongly recommended.
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ORH1524 NATIVE WETLAND PLANTS
This course is a continuation of HOS1071, Native Upland Plants, and includes the identification of approximately 100 plants and plant groups native or naturalized in fresh and salt water wetlands of South Florida. The application of these plants in-situ and mitigation species in ecological, landscape and esthetic situations will be done in the field. Instructor approval or
Prerequisite: ORH1523

Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ORI1000 INTRODUCTION TO ORAL INTERPRETATION
Upon completion of this course, the student should have gained a knowledge of and presentational ability in the art of oral interpretation as applied to prose, poetry, drama and reader's theatre. Meets Area 7 AA degree general education requirements.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ORT0001 NEW STUDENT ORIENTATION
This course will provide students with a solid foundation of knowledge and strategies needed for college success. Students will be instructed in areas of policies/procedures,
educational resources, and support services of the college. This course will cover the different disciplines of degrees administered, the various course formats and the process of searching/registering for classes. Further emphasis will be placed on areas including academic standing, test scores, college preparatory courses, catalog year, as well as other topics enabling students to successfully navigate their college experience.

Lec Hrs = 3 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ORT0002 HONORS ORIENTATION (0)
Continuation of ORT0001 for Honors students.
Lec Hrs = 3 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ORT0003 PREP ORIENTATION (0)
Continuation of ORT0001 for students in three prep areas.
Lec Hrs = 3 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ORT0004 CYBER ORIENTATION (0)
An online continuation of ORT0001.
Lec Hrs = 3 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

ORT0005 SOLAR ORIENTATION (0)
Continuation of ORT0001 for speakers of other languages.
Lec Hrs = 3 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

OST1100L KEYBOARDING & DOCUMENT PROCESSING I (3)
This course offers an introduction to the keyboard with development of fundamental techniques, skill development, and simple correspondence and other business keyboarding and document processing. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 35 words per minute with 5-error cutoff on 5-minute timed writings are required.
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 25.00

OST1103 BASIC KEYBOARDING, PART 1 (1)
This course offers an introduction to the keyboard with development of fundamental techniques. Laboratory hours are required in addition to the scheduled course hours. Minimum completion speed of 21 words per minute with a 5-error cutoff on 2-minute timed writings using touch technique are required.
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1104 BASIC KEYBOARDING, PART 2 (1)
This keyboarding credit includes skill development, simple correspondence and other business keyboarding. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 27 words per minute with 5-error cutoff on 3-minute timed writings are required.
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1105 BASIC KEYBOARDING, PART 3 (1)
This keyboarding credit includes skill development, business correspondence, business forms, and manuscripts. It begins production development. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 35 words per minute with 5-error cutoff on 5-minute timed writings are required.
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1110L KEYBOARDING AND DOCUMENT PROCESSING I (3)
This keyboarding course includes skill development which includes speed building, and accuracy improvement; with an emphasis on refining and creating business correspondence, forms, reports, and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 45 words per minute with 4-error cutoff on 5-minute timed writings are required. Prerequisite: OST1100L
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 25.00

OST1113 INTERMEDIATE KEYBOARDING, PART 4 (1)
This keyboarding credit includes skill development which includes speed building and accuracy improvement. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 39 words per minute with 4-error cutoff on 5-minute timed writings are required. Prerequisite: OST1105
Pre or Corequisite: OST1114 OST1115
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1114 INTERMEDIATE KEYBOARDING, PART 5 (1)
This keyboarding credit includes skill development which includes speed building, accuracy improvement, refining business correspondence, reports and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 42 words per minute with 4-error cutoff on 5-minute timed writings are required. Prerequisite: OST1113
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1115 INTERMEDIATE KEYBOARDING, PART 6 (1)
This keyboarding credit includes skill development with emphasis placed on business forms, correspondence, reports and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 45 words per minute with 4-error cutoff on 5-minute timed writings are required. Pre or Corequisite: OST1113 OST1114
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1130 BUSINESS ENGLISH (1)
This course provides a refresher course in punctuation and capitalization.
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

OST1355 RECORDS MANAGEMENT (3)
Students will act as records managers in a simulated office utilizing computerized and paper management of records from planning, creation, filing, and retrieving to disposal according to ARMA principles. The student will learn and work with the basic legal requirements (such as Privacy Act and Freedom of Information Act) for the release and safekeeping of information and the laws and regulations regarding the management of such records.
Lec Hrs = 24 Lab Hrs = 24 Oth Hrs = 0 Fees = 20.00

OST1795 TELECOMMUNICATIONS (1)
A hands-on course utilizing the Internet. Course topics include telecommunications terminology, the use of the world wide web, bulletin boards, attachments, address books, bookmarks, search engines, history lists, browser programs and customizing the browser. E-mail etiquette, legal issues, and organizing and archiving e-mail are also investigated.
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1811C DESKTOP PUBLISHING (3)
This course provides hands-on applications with a popular desktop publishing package. Through the application of desktop publishing techniques, students plan, design and create documents. Effective typeface and use of graphics and color in a publication's design and function are also covered.
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 28.00

OST1831 WINDOWS / GRAPHICAL ENVIRONMENT (1)
This course provides an introduction to the Windows Operating System. Students will learn the basic Windows commands including: My Computer, Explorer, Control Panel, Print Manager, WordPad, Paint, customizing the desktop, multitasking, and optimizing Windows.
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 8.00

OST1841 INSTRUCTIONAL DESIGN FOR MULTIMEDIA (3)
This course will give the student an in-depth study of the instructional design process based on learning theories for multimedia. Students will conduct a needs analysis, a task
analysis, design multimedia elements using storyboards and flow charts, apply interactive strategies to multimedia elements, and evaluate the success of a multimedia project, with emphasis on making content clearer and more meaningful with multimedia.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2053 SUCCESSFUL JOB SEARCH  (1)
This course presents a hands-on, interactive study of interview and employability skills that focus on the keys to career success. The curriculum accentuates the need for goal setting and life achievement. Topics include occupational skills, positive self-image, attitude, setting priorities, time management, resume writing, and tracking down career leads. A unit on ethics and relationships is included.

Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2335 COMMUNICATIONS IN THE WORKFORCE  (3)
This course is designed to help students communicate more effectively. Students will practice analyzing, planning, managing, and executing both written and oral presentations. Special focus includes grammar and all types of business documents to ensure appropriate content and structure. Discussion includes intercultural work groups, nonverbal skills, and electronic mail as part of communication on the job.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2431 LEGAL OFFICE TECHNIQUES I  (3)
This course provides an introduction to legal terminology, the typing of legal documents and pleadings, and office procedures for law firm employees.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2432 LEGAL OFFICE TECHNIQUES II  (3)
A further study of legal terminology with emphasis on preparation of legal papers.

Prerequisite: OST2431

Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 0.00

OST2464C MEDICAL OFFICE COMPUTER APPLICATION  (3)
This course prepares a medical office assistant to work in a health care practice utilizing computerized medical office management software. It provides training for input of new patient entry, posting procedures and payments, insurance billing, appointment scheduling, file maintenance with support files, and generating the daily, end-of-month, and end-of-period reports which are performed in a medical office.

Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 0.00

OST2501 OFFICE MANAGEMENT  (3)
This course is a study of the skills needed by the office professional in the workforce. It includes technology, the global economy, increased diversity, and the changing skills and a nature of work demanded in the workforce. The efficient handling of office matters, such as scheduling appointments, customer/client relations, managing office operations, preparing of legal and correspondence, communication coordinating meetings/travel, and career planning and advancement are covered. Emphasis is placed on the managerial functions of the office.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2601 TRANSCRIBING MACHINES  (3)
This course emphasizes skill development for accurate transcription of recorded dictation to office standard proficiency levels. Special materials related to each student's major subject areas of legal and medical are provided.

Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 15.00

OST2611C MEDICAL TRANSCRIPTION  (3)
This course emphasizes fundamentals of transcribing various medical reports, discharge summaries, admissions records, history and physical reports, special delivery notes and other medical correspondence. Medical vocabulary and basic language skills with grammar, punctuation, spelling and proofreading will be emphasized.

Prerequisite: HSC1531

Lec Hrs = 40  Lab Hrs = 8  Oth Hrs = 0  Fees = 20.00

OST2621L LEGAL OFFICE TRANSCRIPTION  (3)
The student will study legal terminology, operate a transcribing machine efficiently, and proofread accurately. The student will apply the rules of spelling, grammar and punctuation to produce legal documents directly from transcription tapes.

Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 20.00

OST2764 INFORMATION/WORD PROCESSING APPLICATION  (3)
This course introduces the student to the operations of word processing software and emphasizes application skills such as processing business correspondence, reports, tables, macros, flyers, and mail merge. Laboratory hours are required in addition to the scheduled course hours. Keyboarding speed of 40 words per minute is recommended.

Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 10.00

OST2825C DOCUMENT DESIGN, LAYOUT AND SCANNING  (3)
This course provides hands-on applications in designing, laying out and scanning documents for newsletters, brochures, flyers, manuals, advertisements and catalogs. Through principles of effective design, students can makeover documents from their own work areas.

Lec Hrs = 16  Lab Hrs = 64  Oth Hrs = 0  Fees = 28.00

OST2826C PRESENTATION GRAPHICS  (3)
This course provides hands-on applications using graphics and presentation software with draw, paint, chart and show programs. Through transformation of typography and graphic clip art, students will create printed documents and computer-generated slide shows with CD-ROMs.

Lec Hrs = 16  Lab Hrs = 64  Oth Hrs = 0  Fees = 28.00

OST2940L MULTIMEDIA PRACITCUM  (4)
This comprehensive course (recommended to be taken concurrently with Multimedia Project Management) will give the student experience creating work for someone else (content expert). The student will gain work experience in the field by being placed in an internship. The experience may come from within or outside the college. In addition, the student will create an interactive portfolio of work to show potential employers.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2945 MULTIMEDIA PROJECT MANAGEMENT  (3)
This course is recommended to take concurrently with Multimedia Practicum will teach the student the theory necessary to manage projects from visualization to completion. The student will learn how to visualize, schedule, budget, procure and evaluate resources for multimedia development.

Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OST2949 CO OP WORK EXPERIENCE  (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of learning objectives and employer evaluations. Course may be repeated three times. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain the registration approval.

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

OTA0001 OFFICE SUPPORT TECHNOLOGY I  (2)
The purpose of this course is to prepare students for employment as office support technicians in the field of word processing and/or related occupations. The students will be able to edit and produce written communications using word processing software and act as information processing

Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

Broward Community College  Catalog 2006-2007  www.broward.edu  287
Course Descriptions

OTA0002 OFFICE SUPPORT TECHNOLOGY II  
(2) The purpose of this course is to prepare students for employment in the field of word processing and/or related occupations using more advanced skills as office support technicians. The students will be able to proficiently edit and create written communications using word processing software and act as information processing operators on a windows-based microcomputer. Machine transcription and payroll processing skills will be enhanced with an emphasis throughout on quality performance in the learning environment in the workshop.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 36.00

OTA0312 OFFICE COMMUNICATIONS I  
(2) The purpose of this course is to provide a basic overview of written communication used in today's business environment to enhance personal and workplace proficiency. Emphasis is placed on developing fundamental language and writing skills and using word processing computer application software efficiently in today's information-based society.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0313 OFFICE COMMUNICATIONS II  
(2) The purpose of this course is to provide an advanced overview of written communication skills with emphasis being placed on developing additional language and writing skills using computer applications and formatting techniques. These skills may be used in acquiring employment and increasing professional opportunities in an information-based society.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0323 OFFICE COMMUNICATION III  
(5) The purpose of this course is to provide a more advanced overview of written communication skills with emphasis being placed on developing additional language and writing skills using advanced computer applications and formatting techniques. These skills may be used in acquiring employment and increasing professional opportunities in an information-based society.
Lec Hrs = 50 Lab Hrs = 100 Oth Hrs = 0 Fees = 0.00

OTA0475 LEGAL ASPECTS OF BUSINESS  
(2) This course is designed to provide an introduction to the legal aspects of business. Topics include business law concepts, forms of business ownership, insurance awareness, governmental regulations, management functions, human resources management issues, and career development. The use of computers is an integral part of this program.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0476 LEGAL OFFICE I  
(2) The student will become familiar with legal terminology and perform specialized legal office procedures such as preparing legal documents, maintain and utilize a legal reference library, proofread legal documents and perform specialized records management functions specific to the legal field.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 25.00

OTA0477 LEGAL OFFICE II  
(2) This course expands the competencies learned in Legal Office I. Students are required to perform higher level thinking and decision making and to use technology as a resource to efficiently perform systematic procedural tasks and to produce quality work in an efficient manner. Students will begin transcribing legal documents from machine dictation.
Prerequisite: OTA0476
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 25.00

OTA0478 LEGAL OFFICE III  
(2) This course expands the competencies learned in Legal Office II and is designed to develop skill in transcribing legal documents from machine dictation. Students will use technology to produce high quality employment portfolios, research job opportunities, and compile and disseminate job-seeking documents.
Prerequisite: OTA0477
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 25.00

OTA0612 MEDICAL SECRETARY I  
(2) The purpose of this course is to prepare students to perform secretarial duties that require knowledge of basic medical terminology and legal office procedures. Instruction includes an introduction to basic medical terminology, filing, and appointment scheduling as it relates to the medical field, and the development of basic skills in the keying of business letters and other office correspondence.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0613 MEDICAL SECRETARY II  
(2) The purpose of this course is to prepare students to perform secretarial duties in a medical office environment utilizing knowledge of basic medical terminology. Instruction includes the introduction of transcription techniques so the student will be comfortable transcribing paragraphs that include medical terminology. The student will become familiar with completing insurance and claim forms and the scheduling of appointments in a medical setting.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0614 MEDICAL SECRETARY III  
(5) The purpose of this course is to prepare students to perform secretarial, administrative, and managerial duties in a medical office environment with an advanced level of competency. The content includes a thorough knowledge of medical terminology, accurate transcription of various medical documents from machine transcription, production of quality work using advanced features of business software applications, use of technology to develop office management skills, and production of professional job application documents.
Lec Hrs = 50 Lab Hrs = 100 Oth Hrs = 0 Fees = 0.00

OTA0940 OFFICE SUPERVISION I  
(2) The purpose of this course is to prepare students to incorporate appropriate leadership supervision techniques and standards of personal ethics to accomplish job objectives and enhance workshop performance.
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0948 OFFICE SUPERVISION II  
(2) The purpose of this course is to prepare students to attain a position of management that will incorporate leadership and supervision skills that promote quality performance in the workplace without sacrificing high standards of personal ethics. 
Lec Hrs = 25 Lab Hrs = 50 Oth Hrs = 0 Fees = 0.00

OTA0949 ON THE JOB TRAINING  
(5) The purpose of this course is to provide a work-based learning experience to more effectively prepare students for employment in business occupations. This on-the-job training will help to develop occupational competencies required for employment in an office environment.
Lec Hrs = 20 Lab Hrs = 130 Oth Hrs = 0 Fees = 0.00

PAD2002 INTRODUCTION TO PUBLIC ADMINISTRATION  
(3) This introductory course examines the governmental context of public administration including political values, bureaucratic politics, leadership and intergovernmental relations; organizational theory including decision making and organizational structure; and the administrative process including public personnel administration, budgeting, policy making and governmental regulation. The objective of this
PEL1041C RECREATION ACTIVITIES (2)
An overview of outdoor and indoor games and activities for various age groups in a recreational setting.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

PEL1111 BEGINNING BOWLING (1)
The basic techniques for scoring and learning consistency of form in address, approach, swing, release, and follow through in bowling performance skills. (Shoes and ball provided.)
Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 31.00

PEL1121 BEGINNING GOLF (1)
Introduces the Golf swing and provides instruction in the use of irons and woods, plus putting and approach shots. Rules and courtesies of the game are covered. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL1131 BEGINNING POCKET BILLIARDS (1)
Includes the science and techniques of standard Pocket Billiard games. Coeducational. Fee assessed at site of each class.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

PEL1141 BEGINNING ARCHERY (1)
To provide the student with opportunities to learn Archery equipment selection and care, basic safety considerations, techniques and fundamentals of shooting. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

PEL1211 SOFTBALL (1)
Coeducational. Students furnish gloves.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

PEL1321 VOLLEYBALL (1)
Students learn the basic techniques of power Volleyball such as Bumping, Setting, Spiking, Blocking and Overhand serve and apply them in exciting, fast action power Volleyball games. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL1341 BEGINNING TENNIS (1)
Concentration on learning the basic skills of forehand, backhand, and serve. Scoring and rules of the game are covered with an opportunity to apply them in game situations. (Student must furnish racquet and balls.)
Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL1420 HANDBALL & PADDLEBALL (3)
Coeducational (student must supply own gloves and paddles).
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

PEL1441 3 WALL RACQUETBALL (1)
Instruction in Racquetball. Coeducational. Students must provide own Racquets and Balls, and Safety Glasses.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL1621 BASKETBALL (1)
Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL2112 INTERMEDIATE BOWLING (1)
Emphasis is placed upon self improvement following the beginning Bowling course. Advancing by learning “Spot” Bowling and recognizing through analysis, to detect your own Bowling inconsistencies. (Shoes and Ball are provided.)
Prerequisite: PEL1111 or instructor’s approval. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 31.00

PEL2122 INTERMEDIATE GOLF (1)
Provides individualized help in correcting problems in golf swing and introduces advanced shots and techniques. The majority of the course provides extensive opportunities for guided play on a golf course. Coeducational. Prerequisite: PEL1121 or instructor’s approval. Fee assessed at site of each class.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

PEL2132 INTERMEDIATE BILLIARDS (1)
Course will include advanced techniques in Snooker, One Pocket Bank Pool Rotation, Cribbage and Three-cushion Billiards. Prerequisite: PEL1131 or instructor’s approval. Fee assessed at site of each class.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

PEL2322 INT VOLLEYBALL II (1)
This course continues the techniques of power volleyball. Students will project the skills of bumping, setting, spiking, blocking, and gain insight into the strategy of good offense and defense. Advanced skills and strategies are used. Prerequisite: instructor’s approval or PEL1321.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL2342 INTERMEDIATE TENNIS (1)
Reviews Forehand, Backhand, and Serve and concentrates on volley, Approach Shots, Lob, and Overhead. Strategy and tactics of Doubles and Singles play are emphasized. Prerequisite: PEL1341 or instructor’s approval. (Student must furnish own Racquet and Balls). Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEL2442 4 WALL RACQUETBALL (1)
Involves the teaching of advanced skills and strategies in Singles, Cutthroat, and Doubles play of 4-wall Racquetball. Prerequisite: PEL1441 or instructor’s approval. Students supply own Racquets, Balls and protective Eyeglasses.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 31.00

PEM1011 THERAPEUTIC PHYSICAL EDUCATION (1)
Students will participate in a specialized activity program designed for the individual with consultation from the student and from a Physician or Physical Therapist if necessary. Department Head approval required.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEM1116 SLIMNASTICS (2)
Students will discuss and apply information on Exercising, Sensible Dieting, Weight Control, Nutrition, Energy Input and Output as it relates to weight control, and discuss and practice good posture habits, and relaxation techniques.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEM1121 BEGINNING YOGA EXERCISES (1)
Students will learn proper exercise, relaxation and balance of both the body and mind. A holistic approach to health and stress management is emphasized. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEM1131 WEIGHT TRAINING (2)
Students will be introduced to Weight Training Principles, both past and present, and apply these principles in a well-organized Weight Training Program which will lead to an increased strength. Students will also increase their wellness knowledge.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEM1141 AEROBIC MOVEMENT (2)
Students will improve cardiorespiratory fitness through activity that combines exercise and rhythmical movement and increases wellness knowledge.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00
PEM1181 WALK/JOG/RUN (2)
Students will develop and carry out a personalized Walking, Jogging, or Running program by applying information on equipment selection, physiology, mechanics, psychology, training principles, conditioning, program guidelines, environmental concerns, and injury prevention.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEM2462 INTERMEDIATE FENCING (FOIL, SABRE, EPEE) (1)
Advanced Fencing techniques of Foil, Sabre and Epee. Coeducational. Instructor's approval or Prerequisite: PEM1461
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEN1123 BEGINNING BASIC SAILING (1)
The basic course includes certain fundamentals and techniques of Seamanship and Sail handling as would be necessary for the safe, enjoyable use of a sailboat. Coeducational.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEN121 BEGINNING WATER SKIING (1)
Learn to ski on two skis, one ski, and a kneeboard. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 62.00

PEN1211 BEGINNING WATER SKIING (1)
Learn to ski on two skis, one ski, and a kneeboard. Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 62.00

PEN1221 INTERMEDIATE SWIMMING (1)
Coeducational.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 2.00

PEN1236 SCUBA DIVING (1)
This course offers competencies for the PADI basic SCUBA course. Students will learn fundamental skills of snorkeling and scuba diving, as well as theories and knowledge for safe diving. This course does include open water dives required for National Certification. Student must furnish their own mask, snorkel, scuba fins and PADI Open Water Crew Pack (wet suit is optional). The course will meet at Tigrertail Lake.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 125.00

PEO1011C TEAM SPORTS AND ACTIVITIES (2)
An overview of team sports and activities. Concepts appropriate for a variety of ages.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 5.00

PEO1013 SPORTS OFFICIATING (3)
Theory and practice of Officiating in selected sports. High School Federation Rules in Football, Basketball and Baseball or National Association for Girl's and Women's Rules in Volleyball, Basketball and Softball may be taught. Not an activity course. Elective credit only.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PEO1031C INDIVIDUAL SPORTS AND ACTIVITIES (2)
An overview of individual sports and activities concepts appropriate for a variety of ages.
Lec Hrs = 16 Lab Hrs = 32 Oth Hrs = 0 Fees = 5.00

PEO2231 TEACHING SAILING (1)
This program enables a qualified person to teach the basic Sailing at the assistant instructor level and assist in the operation of an on-the- water training facility. Not classified as an activity course. Elective credit only.
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

PET1030 FOUNDATIONS OF EXERCISE SCIENCE (3)
This course is designed to provide a foundational knowledge base which is common to all the different areas of fitness leadership. The didactic instruction lays the groundwork required by the fitness professionals in order to be analytical in their approach to safe and effective exercise programming for the public. Course content is heavy in the areas of anatomy and physiology as well as kinesiology, the science of human movement.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PET2084 PERSONAL FITNESS CONCEPTS FOR TEACHERS (3)
This course is designed for present and prospective middle and high school health and physical education teachers. It covers the basic principles of exercise, various fitness programs, fitness assessment, nutrition, weight management, cardiovascular health, managing stress, and HIV/AIDS. Lectures will include hands-on activities and demonstrations. This course will not satisfy the General Education Requirements for the A.A. or A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PET2622 CARE/PREVENTION/ATHLETIC INJURIES (2)
Develops competence, knowledge and skill in the prevention and care of athletic injuries.
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PGY1800C DIGITAL PHOTOGRAPHY (3)
This is a Graphic Design course formulated to develop skills with a digital camera. Students will learn through the use of a digital camera how to take photographs for use in the designs they create for print, web and multimedia. Students will learn to properly expose, compose, and use effective lighting in the making of photographs. The use of natural and artificial lighting will be used in portraiture, product and outdoor photography. Prerequisite: PGY1801C
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 65.00

PGY1801C DIGITAL IMAGING (3)
This is a Graphic Design course formulated to develop skills in digital imaging. Students will learn through the use of the computer how to create, edit and manipulate digital images from scanned photographs and artwork. Students will utilize retouching technique to modify, enhance and reshape images, apply special effects, adjust color balance, manage files, and prepare their work for print output and web/electronic presentation. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 65.00

PGY2401C PHOTOGRAPHY I (3)
Basic procedures of black and white still camera work, developing, and printing. Emphasis on intensifying visual perception and analysis of photographs as Art and record. Student will supply 35mm camera, film, and paper.
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 20.00

PGY2410C PHOTOGRAPHY II (3)
The application of the 35mm camera to specially directed individual projects. Emphasis on the use of photography in documenting the social landscape. Student will supply 35mm camera, film, and paper. Instructor's approval or Prerequisite: PGY2401C
Lec Hrs = 0 Lab Hrs = 96 Oth Hrs = 0 Fees = 20.00
PHI2610 INTRODUCTION TO ETHICS  (3)
A study of the basic concepts and principles of morals, values and judgments that govern human actions, as well as various ethical theories. Meets Area 2F general education requirements for the A.A. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHI2930 SPECIAL TOPICS: PHILOSOPHY  (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics, or focus may vary from semester to semester. Topics will be identified by the course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT1100 PHYSICAL THERAPY ASSISTANT  (1)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the photographic process. Exceptions to Prerequisite will be considered by the Art Department Head. Instructor's approval or Prerequisite: PHT2401C
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 45.00

PHT1103 ANATOMY FOR PHYSICAL THERAPIST ASSISTANT  (3)
Course introduces basic human anatomy with an emphasis on the structure and function of the skeletal and muscular systems. Actions, origins, insertions and innervations of muscles are discussed. Surface anatomy is presented with an introduction to basic palpation.
Prerequisite: BSC1086 BSC1086L Corequisite: PHT1103 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT1103L ANATOMY FOR PHYSICAL THERAPIST ASSISTANT  (2)
Laboratory sessions for Anatomy for PTA (PHT1103) are designed to provide the students with an opportunity to identify, with accuracy, a variety of bones, bony landmarks, muscles, ligaments and other soft tissue structures using graphics and various anatomical specimens/models. Basic palpation skills are developed.
Pre or Corequisite: PHT1103 Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 5.00

PHT1200 INTRODUCTION TO PHYSICAL THERAPY  (3)
Course introduces the student to the historical background, philosophy and goals of physical therapy as a profession. It incorporates discussion on legal and ethical issues, educational requirements, supervisory relationships and current developments related to physical therapy. Health care delivery systems, the medical record and issues of reimbursement are discussed. Presents the basic theory of preparing the patient and the treatment area, positioning and tranferring techniques, gait training, and wheelchair prescription. Professional behaviors are introduced.
Pre or Corequisite: PHT1103 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PGY2610 PHOTO JOURNALISM  (4)
A production class in periodical and press photography. Students will produce picture essays which will serve as a basis for class discussion. Emphasis is on the form and content of reportorial B&W photographs, their production, and their relationship to American society. The student will supply a 35mm camera, film and paper. As part of the course, students will have an opportunity to shoot for campus publications. Instructor's approval. Special fee charged.
Lec Hrs = 48 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

PGY2806C FINE ARTS DIGITAL PHOTOGRAPHY  (4)
This course is a Visual Arts class formulated to introduce and develop an appreciation of the necessary skills that will enable students to understand the basic principles of digital cameras, film scanners and digital printing and how to use them in the context of the visual language. It is a course designed for Visual Arts students which will provide them with the necessary tools to understand the conceptual, visual, historical and cognitive arguments needed to create a cohesive and personal body of work. The students will learn Fine Arts Digital Photography through the use of digital cameras, film scanners and photo editing software. It will be hands-on learning experience. An important part of the class will be lectures, slide presentations, and discussion of historical and contemporary issues dealing with conceptual and visual arguments. Critiques will be the forum where students present their ideas and discuss/verbalize concepts dealing with
Prerequisite: PGY2401C
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 45.00

PGY2850C DIGITAL VIDEO/AUDIO EDITING  (3)
Concepts and techniques of video/audio production for recording. Using full-motion video camera and video editing and sound editing software, students will produce video and sound modules for inclusion in multimedia projects. Video formats, signals, compression standards, capture and equipment will be emphasized. Sound formats including compression standards, sampling, resource management, software and equipment selection will be studied. Copyright issues will be discussed.
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 45.00

PGY2905 INDEPENDENT STUDY: PHOTOGRAPHY  (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the photographic process. Exceptions to Prerequisite will be considered by the Art Department Head. Instructor's approval or Prerequisite: PGY2401C
Lec Hrs = 32 Lab Hrs = 64 Oth Hrs = 0 Fees = 45.00

PHI2930 SPECIAL TOPICS: PHILOSOPHY  (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics, or focus may vary from semester to semester. Topics will be identified by the course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT1010 PHYSICAL PRINCIPLES FOR THE PHYSICSA THERAPIST ASSISTANT  (1)
Course introduces the student to the basic physical principles that apply to commonly utilized therapeutic procedures in the field of physical therapy. Topics include but are not limited to body mechanics, ergonomics, the use of heat, cold, sound and electricity to facilitate healing.
Pre or Corequisite: PHT1103 Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT1020 THERAPEUTIC COMMUNICATION FOR THE PHYSICAL THERAPIST ASSISTANT  (2)
An overview of effective communication skills and concepts regarding successful therapeutic interactions will be presented. Students will participate in several interactive sessions to become familiar with team building, verbal and non-verbal communication requirements, effective listing concepts, and conflict management to determine how to manage clinical situations as they arise. Cultural diversity is discussed. Students are responsible for developing an in-service presentation as a means of enhancing effectiveness of communication.
Prerequisite: PHT1211 Corequisite: PHT1801L Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT1103 ANATOMY FOR PHYSICAL THERAPIST ASSISTANT  (3)
Study of the principles and evaluation of critical thinking including identification and analysis of fallacious, as well as valid reasoning. Traditional and symbolic logic will be considered and foundations will be laid for further study in each area. Meets Area 2F general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHI2010 INTRODUCTION TO PHILOSOPHY  (3)
An introduction to the nature of philosophy, philosophical thinking, major intellectual movements in the history of philosophy, and specific problems in philosophy. Meets Area 2F general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHI2600 INTRODUCTION TO ETHICS  (3)
A study of the basic concepts and principles of morals, values and judgments that govern human actions, as well as various ethical theories. Meets Area 2F general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT1200 INTRODUCTION TO PHYSICAL THERAPY  (3)
Course introduces the student to the historical background, philosophy and goals of physical therapy as a profession. It incorporates discussion on legal and ethical issues, educational requirements, supervisory relationships and current developments related to physical therapy. Health care delivery systems, the medical record and issues of reimbursement are discussed. Presents the basic theory of preparing the patient and the treatment area, positioning and tranferring techniques, gait training, and wheelchair prescription. Professional behaviors are introduced.
Pre or Corequisite: PHT1103 Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

Broward Community College  Catalog 2006-2007  www.broward.edu  291
PHT1200L INTRODUCTION TO PHYSICAL THERAPY LAB (1)
Laboratory sessions for Introduction to Physical Therapy (PHT1200) are designed to allow students an opportunity to familiarize themselves with the basic fundamentals of patient care. Emphasis is on body mechanic analysis, positioning of patient, transfers, gait training, and basic patient preparation skills. Case studies of various medical conditions with emphasis in these areas are completed. Data collection relative to the course content as well as patient and caregiver education are emphasized. Skill checks as well as competency evaluations are completed. Professional behaviors, at the novice level, are assessed.
Pre or Corequisite: PHT1103L PHT1200
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 50.00

PHT1211L DISABILITIES AND THERAPEUTIC PROCEDURES LAB (2)
Laboratory sessions for Disabilities & Therapeutic procedures (PHT1211L) are designed to develop student skills in the actual performance of the patient care interventions presented. Skills in massage are developed. Practical application of each intervention is emphasized with patient simulations and case studies enhancing the ability to understand a plan of care for a patient. Professional behaviors, at the intermediate level, are assessed. Data collection relative to the course content as well as patient and caregiver education are emphasized. Skill checks as well as competency evaluations are completed. Students are expected to demonstrate competency in carrying out an appropriate therapeutic modality plan of care, including effective documentation.
Prerequisite: PHT1103PHT1200
Pre or Corequisite: PHT1211LPHT2224
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PHT1300 SURVEY OF PATHOLOGICAL DEFICITS (4)
Course introduces the student to general pathological conditions with emphasis on those commonly seen in the field of physical therapy. Basic system anatomy is reviewed with an emphasis on the pathophysiology of disease. Student presentations of various musculoskeletal conditions are completed. Descriptions of how diseases are classified, diagnosed and treated, as well as the natural course/prognosis of these diseases are presented. Implications of disease processes as well as contraindications, precautions and patient/caregiver education related to physical therapy are discussed through case study analysis. The effects of aging upon disease and in general are considered.
Prerequisite: BSC1086
Corequisite: PHT1300
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PHT1350 BASIC PHARMACOLOGY FOR PHYSICAL THERAPIST ASSISTANT (1)
Course introduces concepts of basic pharmacology and presents pharmacological agents dispensed for conditions commonly seen in physical therapy. Drug responses and interactions as they relate to patient response are discussed.
Prerequisite: PHT1300
Pre or Corequisite: PHT1211
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PHT1801L CLINICAL PRACTICE I (2)
Course involves student assignment to a local clinical facility. Includes scheduled class meetings to discuss clinical performance objectives, the self-appraisal process, and overall requirements for this novice-level practicum. Discussions also include professionalism, attitudes, patient rapport, sexual harassment, etc. A journal report of clinical experiences and an article review are required. Weekly online discussion forums facilitate critical thinking, peer review, and managing clinical situations at the novice-level. Students attend a personal conference with the academic coordinator of clinical education to discuss progress and to identify areas of strength/weakness with appropriate target dates methods of amelioration, if needed. Students receive a satisfactory/fail grade.
Prerequisite: BSC1086 PHT1211
Corequisite: PHT1020
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 120  Fees = 70.95

PHT2120 APPLIED KINESIOLOGY (3)
This course is designed as part of a continuum in the application of anatomy to facilitate student analysis of functional movements with specific focus on the relationship between joint structure and function. Joint structure and function including tests and measures for ROM and muscular strength are reintroduced. Special testing procedures, joint play and palpation are introduced which aid the student in understanding pathological gait patterns. Orthotic interventions for the spine and extremities are presented.
Prerequisite: PHT1020
Corequisite: PHT2120L
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PHT2120L APPLIED KINESIOLOGY LAB (1)
Laboratory sessions for Applied Kinesiology (PHT2120L) are designed to provide opportunities for the students to practice the skills of goniometry and manual muscle testing along with special testing procedures. Observation of normal and pathological gait patterns as well as analysis of UE and LE movement patterns are performed. Interventions are developed to address functional deficits. Palpation of surface anatomy and review of anatomical/bony landmarks occurs. Through completion of case studies, the student correlates patient problems related to various pathologies with their deficits in functional activities and gait. Competency evaluations are completed.
Prerequisite: PHT2224L
Pre or Corequisite: PHT2120
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 50.00

PHT2162 SURVEY OF NEUROLOGICAL DEFICITS (4)
Course introduces the etiology, pathophysiology and symptoms of common neurological diseases/conditions. Basic neuroanatomy is reviewed. Neurodiagnostic procedures are presented. Specific case study assignments of various neurological conditions are completed and discussed.
Prerequisite: PHT1020 PHT2224
Corequisite: PHT2810L
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00
understanding of the underlying principles of advanced physical therapy plans of care including motor learning principles. Techniques presented include advanced therapeutic exercise programs (stroke, spinal cord injured, etc.) proprioceptive neuromuscular facilitation (PNF), Bobath and Brunnstrom. Amputations and principles of prosthetics are detailed with fitting and check-out procedures reviewed. Pre or Corequisite: PHT2931

Corequisite: PHT2704L

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT2204 MANUAL TECHNIQUES II

This course explores advanced techniques further developing the student's use and integration of structural-based and energy-based systems. Topics will include trigger point therapy, myofascial release, and other advanced therapy applications. Pre or Corequisite: PHT2203 PHT2203L

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT2204L CLINICAL PRACTICUM IN MANUAL TECHNIQUES

This course provides a student laboratory experience to practice Swedish and structurally based therapeutic massage in a supervised setting. Principles of ROM and stretching techniques are presented. A basic introduction to goniometry and manual muscle testing procedures is presented as it pertains to the development of therapeutic exercise interventions. Pre or Corequisite: PHT2203

Lec Hrs = 0 Lab Hrs = 60 Oth Hrs = 0 Fees = 25.00

PHT2204L CLINICAL PRACTICUM IN MANUAL TECHNIQUES II

This course provides an advanced laboratory experience incorporating hands-on techniques and sequences to balance the various energy patterns of the physical body in a supervised setting. Pre or Corequisite: PHT2204

Lec Hrs = 0 Lab Hrs = 60 Oth Hrs = 0 Fees = 25.00

PHT2220 TECHNIQUES

Course explores advanced techniques further developing the student's use and integration of structural-based and energy-based systems. Topics will include trigger point therapy, myofascial release, and other advanced therapy applications. Pre or Corequisite: PHT2203

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT2220L CLINICAL PRACTICUM IN MANUAL TECHNIQUES

This course provides an advanced laboratory experience incorporating hands-on techniques and sequences to balance the various energy patterns of the physical body in a supervised setting. Principles of ROM and stretching techniques are presented. A basic introduction to goniometry and manual muscle testing procedures is presented as it pertains to the development of therapeutic exercise interventions. Pre or Corequisite: PHT2203

Lec Hrs = 0 Lab Hrs = 60 Oth Hrs = 0 Fees = 25.00

PHT2222 DISABILITIES & THERAPEUTIC PROCEDURES II

Course introduces concepts of therapeutic exercise with regards to its principles, and objectives. The theory of and application of specific exercise regimes are presented. Principles of ROM and stretching techniques are presented. A basic introduction to goniometry and manual muscle testing procedures is presented as it pertains to the development of therapeutic exercise interventions. Pre or Corequisite: PHT1103

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PHT2222L DISABILITIES & THERAPEUTIC PROCEDURES II LAB

Laboratory sessions for Disabilities and Therapeutic Procedures II (PHT2222) are designed to provide the student with observation and actual application of therapeutic exercise in the laboratory setting. Case studies of various medical conditions with emphasis on therapeutic exercise interventions are completed. ROM and stretching techniques are practiced. Goniometry and manual muscle testing procedures are practiced as they relate to the provision of therapeutic exercise. Data collection relative to the course content as well as patient and caregiver education are emphasized. Professional behaviors, at the intermediate level, are assessed. Students are expected to demonstrate competency in developing and carrying out an appropriate therapeutic exercise program including effective documentation. Pre or Corequisite: PHT1103L PHT1200L

Lec Hrs = 0 Lab Hrs = 64 Oth Hrs = 0 Fees = 50.00

PHT2207 REHABILITATION PROCEDURES

Advanced course designed to develop skill in and understanding of the underlying principles of advanced physical therapy.
disability are explored through a community advocacy project. A capstone project is completed to assess entry level preparation. The course also provides a comprehensive curriculum review and presents details on applying for licensure as students prepare for the transition to the workplace. Prerequisite: PHT2120 PHT2162 Pre or Corequisite: PHT2704

Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY1001 APPLIED PHYSICS (3)**
General physics course accompanied by an optional laboratory. Contents: mechanics, electricity, and magnetism. Intended for students in general education and technical fields. Students majoring in a technical field should take PHY1001L concurrently with PHY1001. Meets area 4B general education requirements for the A.A. degree. Meets areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: MAT1033

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY1001L APPLIED PHYSICS LAB (1)**
Laboratory which meets for two hours per week for the purpose of demonstrating and verifying the theories of mechanics, electricity and magnetism. The concept of heat is introduced and experiments are performed to illustrate this concept. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY1001

Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**PHY2048 GENERAL PHYSICS WITH CALCULUS I (4)**
Part one of a two term comprehensive course in physics involving the use of calculus in problem solving. Topics include mechanics, heat, wave motion and sound. Four hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2048

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY2048L GENERAL PHYSICS WITH CALCULUS I LAB (1)**
Laboratories designed to accompany PHY2048. One two hour period each week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2048

Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**PHY2049 GENERAL PHYSICS WITH CALCULUS II (4)**
The second part of a two term physics course employing algebra and trigonometry. Topics covered during this term are electricity and magnetism, optics, and special relativity and quantum theory. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2049

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY2049L GENERAL PHYSICS WITH CALCULUS II LAB (1)**
A continuation of laboratory experiences chosen to coincide with the topics of electricity, magnetism, optics. One two hour period per week. Special fee charged. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2049

Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**PHY2053 GENERAL PHYSICS I (3)**
A general physics course employing algebra and trigonometry to explain the quantitative aspects of mechanics, properties of matter, heat and sound. Three hours weekly. Meets Area 4B general education requirements for the A.A. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: MAC1114 MAC1140

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY2053L GENERAL PHYSICS I LAB (1)**
Laboratories designed to accompany the topics under study in PHY2053. One two hour period per week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Special fee is charged. Placement by Testing Department or Pre or Corequisite: PHY2053

Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**PHY2054 GENERAL PHYSICS II (3)**
The second part of a two term physics course employing algebra and trigonometry. Topics covered during this term are electricity and magnetism, optics, and special relativity and quantum theory. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2054

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY2054L GENERAL PHYSICS II LAB (1)**
Laboratory experiences designed to accompany the topics under study in PHY2054. One two hour period per week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2054

Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**PHY2420 ELEMENTARY WAVE THEORY (3)**
A survey of the basic topics in the properties of physical and electromagnetic waves, including the study of intensity and motion waves. Placement by Testing Department or Pre or Corequisite: MAT1033

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PHY2464 ACOUSTICS (3)**
A survey of basic topics in the physical properties of sound and music, including an in-depth study of wave motion, pitch, timbre intensity, and the nature of stringed, wind, percussion, and vocal instruments. Three hours weekly. Prerequisite: MAT1033 with a grade of "C" or higher. Prerequisite or Corequisite: MUT1111 or consent of instructor. Placement by Testing Department or Pre or Corequisite: MAT1033

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PLA1003 INTRODUCTION TO LEGAL ASSISTING (3)**
This course provides an overview of the training and duties of the legal assistant/paralegal. Also included is a discussion of legal terminology, research techniques, and pertinent litigation documents.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**PLA1104 LAW LIBRARY/RESEARCH (3)**
This course provides information on how to research and write legal documents for both trial and appellate work. An in-depth examination of the law library and legal research techniques are emphasized, including the teaching of how to research utilizing computer research.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 100.00
PLA1201 CIVIL LITIGATION (3)
This course covers the basic concepts of Civil Litigation. Discussions involve the liability of the individual in relation to the specific acts committed.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA1303 CRIMINAL LITIGATION (3)
This course provides students with a survey of the criminal justice system. Substantive and procedural aspects of criminal law are studied. Course content includes the nature of different crimes, the potential charges, and penalties involved; also covered are pre-trial procedures, discovery, plea-bargaining process, and the problems involved in the conduct of trial proceedings. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA1435 CORPORATIONS (3)
This course provides an in-depth study of Corporate Law. Topics covered include types of corporations, articles of incorporation, bylaws, shareholders' agreements, voting rights, management structure, directors' powers, and voluntary/involuntary dissolutions. Non-profit corporations and professional associations are also discussed. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA1600 PROBATE PRACTICE (3)
This course prepares legal assistants to work effectively under the supervision of a lawyer in the probate of an estate. The Florida probate code and related taxes are studied. Preparation of pleadings is included. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA1610 PROCEDURES FOR REAL ESTATE TITLE CLOSING (3)
This course surveys the basic concepts of Real Property Law. The students study how to handle a real estate transaction from the drafting of a contract to its closing. The nature of property, the consequences of its possession, and the mechanics of the title examination are also studied. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA1800 DOMESTIC RELATIONS (3)
This course surveys domestic relations, and includes topics such as marriage, dissolution of marriage, separation agreements, custody, legitimacy, adoption, name changes, support, court procedures, and property disposition. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA1841 IMMIGRATION LAW (3)
This course provides an in-depth study of Immigration Law. Topics covered include a historical overview of immigration law, types of immigration law practices, agencies involved with immigration laws, the drafting of fall documents and forms associated with immigration law, the Immigration & Nationality Act & the administrative system covering the practice of immigration law.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA2114 LEGAL WRITING AND DRAFTING (3)
This course concentrates on developing skills in the grammar, language, and format of legal documents. Emphasis is placed on drafting interoffice memoranda. Other documents drafted include business letters, briefs, and pleadings. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA2466 DEBTOR/CREDITOR RELATIONS (3)
This course provides an in-depth study of Debtor/Creditor law. Topics covered include collection of debts through court processes, post-judgment collection practices, bankruptcy law, landlord/tenant debt law, collection of debts based upon negotiable instruments, federal consumer collection acts, and foreclosure actions. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLA2612C ADVANCED TITLE SEARCH PROCEDURES (3)
The student will learn how to perform a closing from the inception to closing. They will become familiar with real estate documentation, an understanding of title insurance, homestead concepts, basic title examination, and transactions and procedures to prepare and close various real property transactions. The student will apply computer applications throughout the course using The Fund's ATID System to search title information to prepare closing documents and policies.
Prerequisite: PLA1610
Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

PLA2940 LEGAL ASSISTING PRACTICUM (3)
This course is designed to apply the knowledge and skills developed in the required courses through practical work experience. The student will perform legal work for 144 hours under the supervision of an attorney. Program Coordinator's approval.
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

PLS2600 WOOD IDENTIFICATION AND CONTROL (3)
Identification and methods of control of terrestrial and aquatic weeds of Southern Florida commonly found in landscapes, field and container nurseries, and turfgrasses and aquatic areas. Calibration, use and preventative maintenance of pest control equipment will also be discussed. Two four hour lectures for 6 weeks.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

POR1120 BEGINNING PORTUGUESE I (4)
Fundamentals of speaking, understanding, reading, and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with POR1121. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

POR1121 BEGINNING PORTUGUESE II (4)
Continuation of POR1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: POR1120
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

POS2041 NATIONAL GOVERNMENT (3)
Study of theory, principles, and institutions involved in the American National Government. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

POS2112 STATE AND LOCAL GOVERNMENT (3)
Study of the principles and institutions of American state and local government. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

POS2601 THE AMERICAN CONSTITUTION (3)
A study of the basic elements of the U.S. Constitution as they impact society and the individual. Emphasis is placed upon the document's theoretical, as well as, pragmatic applications.
Course Descriptions

Course is taught from perspectives which are primarily historical and cultural.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PSC1121 PHYSICAL SCIENCES SURVEY  (3)
A survey of physical sciences for the non-science major. An integrated approach is used to introduce topics in astronomy, chemistry, geology, meteorology and physics. It is recommended that students take the companion laboratory, PSC1191L. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Prerequisite: MAT1033
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PSC112L PHYSICAL SCIENCES LABORATORY  (1)
Experiments and exercises which supplement topics covered in PSC1121. Special fee is charged. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: PSC1121
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 10.00

PSC1341 FUNDAMENTALS OF PHYSICS AND CHEMISTRY  (6)
This course is designed for students in the Teacher Education Alliance. Major concepts and principles of physics and chemistry will be covered. Practical applications of the scientific method will be stressed. Hands on activities and demonstrations will be included. Placement by Testing Department or
Prerequisite: MAT1033
Lec Hrs = 96  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PSY2012 GENERAL PSYCHOLOGY  (3)
Scientific approach to basic principles of human behavior. Emphasis is placed on such topics as learning motivation, perception, feeling and emotion, intelligenc e, and personality. Placement by Testing Department or
Pre or Corequisite: PSY2930
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PSY2012L GENERAL PSYCHOLOGY LAB  (1)
This laboratory course parallels and supplements the instruction given in General Psychology (PSY2012). Illustrated in this course are a variety of experimental and behavioral activities that demonstrate the scientific basis of psychology. Placement by Testing Department or
Pre or Corequisite: RAT1651 RAT1652 RAT1655
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 3.00

PSY2043 ADVANCED GENERAL PSYCHOLOGY  (3)
The rationale, methods, and application of the scientific analysis of behavior. Emphasis is placed on the lawfulness of behavior, how behavioral laws are found and used in the formulation of behavior.
Prerequisite: PSY2012
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 8.00

PSY2905 INDEPENDENT STUDY IN PSYCHOLOGY  (3)
Directed study course in the Behavioral Sciences. The course will be available to both majors and non-majors who wish to investigate a particular problem. The student will make application for the course to the Head of the Behavioral Sciences Department via an Instructor.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

PSY2930 SPECIAL TOPICS: PSYCHOLOGY  (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the PSY2930 title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

QMB2100 QUANTITATIVE METHODS IN BUSINESS  (3)
This course applies quantitative methods to business problems with emphasis on learning to select the appropriate problem solving method, applying the chosen method, and interpreting the solution. The use of quantitative methods in managerial decision making is a continuous focus of this course. Management problems are used and written managerial recommendations are required.
Prerequisite: MAT1033
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RAT1001 INTRODUCTION TO RADIATION THERAPY  (3)
An introduction to the clinical institution and the radiation therapy department. Stresses the ethics of patient/oncologist/therapist relationship, nursing procedures, safety precautions necessary for therapy patients, and the keeping of records. 3 hrs. lec. Prerequisite: Program Admission.
Pre or Corequisite: RAT1614
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RAT1021C INTRO TO RADIATION THERAPY CLINICAL  (2)
A course designed to provide knowledge and hands-on instruction in the application of radiation therapy procedures with a detailed study of instrumentation prior to actual patient contact.
Prerequisite: RAT1001 RAT1614
Pre or Corequisite: RAT1111 RAT1111L
Lec Hrs = 16  Lab Hrs = 32  Oth Hrs = 0  Fees = 25.00

RAT1111 RADIOGRAPHIC PROCESSES  (2)
Provides the student with instruction on the principles of radiographic exposure, the processing of film and the positioning of patients for simulated procedures.
Prerequisite: RAT1001 RAT1614
Pre or Corequisite: RAT1021C RAT1111L
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 20.00

RAT1111L RADIOGRAPHIC PROCESS LAB  (1)
Laboratory experience exposing phantom body parts to x-ray radiation to allow therapy students to practice radiographic imaging and film processing techniques. Laboratory accompanies RAT1111 lecture.
Prerequisite: RAT1001 RAT1614
Pre or Corequisite: RAT1021C RAT1111
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 25.00

RAT1614 INTRO RADIATION THERAPY PHYSICS  (3)
Introduction to the fundamentals of physics involved in the production of x-radiation to include: mathematics, electricity, electromagnetism, x-ray interactions and the radiographic tube.
Pre or Corequisite: RAT1001
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RAT1651 INTRODUCTION TO DOSIMETRY  (2)
A study of the skills necessary to develop as a dosimetrist in the clinical setting. Prerequisites: Program Admission.
Pre or Corequisite: RAT1652 RAT1655 RAT1655L
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RAT1652 ADVANCED DOSIMETRY I  (3)
The study of patient dosimetry for radiation therapy including planning techniques for external beam and brachytherapy.
Prerequisites: Program Admission.
Pre or Corequisite: RAT1653 RAT1655 RAT1655L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RAT1653 TREATMENT ACCESS. FAB., LOCALIZATIO  (2)
A study of fabrication of treatment accessories, tumor localization and simulation. Prerequisite: Program Admission.
Pre or Corequisite: RAT1651 RAT1652 RAT1655
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00
RAT1654 ADVANCED DOSIMETRY II (3)
A continuation of the study of dose calculations including the combination of multiple modalities of treatment methodology with emphasis on comparison of treatment techniques for selected anatomical sites.
Prerequisite: RAT1651 RAT1655 RAT1942
Pre or Corequisite: RAT1656 RAT1659 RAT1902C
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT1655 MEDICAL PHYSICS AND INSTRUMENTATION (2)
A review and in-depth presentation of radiation physics including but not limited to matter, energy, and radiation, principles of x-ray and radioactivity, interaction of x and gamma rays. Radiation protection to include state and federal regulations. An introduction to various radiation detection instrumentation. Prerequisite: Program Admission.
Pre or Corequisite: RAT1651 RAT1652 RAT1655L
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 25.00

RAT1656 PHYSICS & BASIC BIOMEDICAL ELECTRON (2)
A continuation of the study of radiation physics with emphasis on the principles of medical electronics to include instrument trouble-shooting and electrical safety in the patient care environment.
Prerequisite: RAT1651 RAT1655 RAT1942
Pre or Corequisite: RAT1652 RAT1653 RAT1655
Lec Hrs = 0 Lab Hrs = 16 Oth Hrs = 0 Fees = 25.00

RAT1659 ADVANCED QUALITY ASSURANCE (2)
An in-depth study of the rationale, principles and the methods of quality assurance as they relate to radiation therapy.
Prerequisite: RAT1651 RAT1655 RAT1655L
Pre or Corequisite: RAT1654 RAT1656 RAT1902C
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT1804 CLINIC EDUCATION I (3)
Patient treatment competencies are assigned under the direct supervision of a registered radiation therapist. Complexity is commensurate with level of education.
Prerequisite: RAT1021C RAT1111 RAT1111L
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 20.50

RAT1902C COMPUTER TREATMENT PLANNING LAB (3)
A study of the computers utilized in radiation therapy treatment planning and the generation of computerized treatment plans.
Prerequisite: RAT1651 RAT1655 RAT1655L
Pre or Corequisite: RAT1652 RAT1654 RAT1655
Lec Hrs = 32 Lab Hrs = 16 Oth Hrs = 0 Fees = 25.00

RAT1942 CLINIC EDUCATION I (3)
Under the direct supervision of the medical Dosimetrist and/or Medical Physicist, the student participates in medical dosimetry practices in a local radiation therapy department. This will encompass basic treatment planning, simulation, and quality assurance. Prerequisite: Program Admission.
Pre or Corequisite: RAT1652 RAT1653 RAT1655
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 50.45

RAT1944 CLINIC EDUCATION II (3)
Under the direct supervision of the Medical Dosimetrist and/or Medical Physicist the student participates in medical dosimetry practices in a local Radiation Therapy Department. This will improve on the skills developed in Clinic I in the area of treatment planning, simulation, and quality assurance.
Prerequisite: RAT1651 RAT1655 RAT1655L
Pre or Corequisite: RAT1654 RAT1659 RAT1902C
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 150.95

RAT1946 CLINIC EDUCATION III (5)
Under the direct supervision of the Medical Dosimetrist and/or Medical Physicist, the student participates in medical dosimetry practices in a local radiation therapy department. This is the most advanced clinical education and successful completion of this course will ensure that the student is competent upon graduation to assume all of the responsibilities required of a medical dosimetrist.
Prerequisite: RAT1654 RAT1902C RAT1944
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 640 Fees = 50.45

RAT2021 PRINCIPLES OF RADIATION THERAPY I (3)
An introduction to the principles of radiation therapy and radiation protection providing the student with basic concepts to prepare him/her for clinical education.
Prerequisite: Program Admission.
Pre or Corequisite: RAT2023 RAT2617 RAT2814
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2022 PRINCIPLES OF RADIATION THERAPY II (3)
A continuation of the fundamentals of technologic applications in simulation and patient treatment.
Prerequisite: RAT2021 RAT2023 RAT2617
Pre or Corequisite: RAT2241 RAT2618 RAT2619
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2023 RADIATION ONCOLOGY (3)
A study of the fundamentals of clinical radiation oncology stressing the following: etiology, epidemiology, histopathology, symptoms, diagnosis, staging, prognosis and the therapeutic aspects of malignant conditions. Prerequisite: Program Admission.
Pre or Corequisite: RAT2021 RAT2617 RAT2814
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2240 RADIATION PATHOLOGY (3)
An introduction to the concept of disease and general pathology. The types of growth, causative factors and biological behavior of neoplastic diseases are stressed. Pharmacology with emphasis on the radiation therapy patient is included in this course.
Pre or Corequisite: RAT2021 RAT2023 RAT2617
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2241 RADIOTOLOGY (2)
A study of the sequence of events following the absorption of energy from ionizing radiation. Factors influencing radiation effects, tissue sensitivity, tolerance, and clinical applications are considered.
Prerequisite: RAT2021 RAT2240 RAT2617
Pre or Corequisite: RAT2022 RAT2618 RAT2619
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2617 ADVANCED RADIATION THERAPY PHYSICS (3)
The fundamentals of x-ray, gamma, and corpuscular radiation as applied to radiation therapy. Teletherapy units and nuclear reactors are also covered in this course.
Pre or Corequisite: RAT2021 RAT2223 RAT2617
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2618 ADVANCED RADIATION PHYSICS II (3)
Advanced physics of ionizing radiation including measurements, dosages, absorption, isodose curves, filters, radioactive materials treatment planning, properties of radionuclides, radiation safety and health physics.
Pre or Corequisite: RAT2021 RAT2222 RAT2023 RAT2241 RAT2617
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RAT2619 DOSIMETRY AND COMPUTER TREATMENT PLANNING (2)
The study of radiation dose measurement and instrumentation usage. The need for accuracy is stressed.
Prerequisite: RAT2022 RAT2241 RAT2618 RAT2657 RAT2824
Corequisite: RAT2619L
Pre or Corequisite: RAT2834
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
RAT2619L DOSIMETRY AND COMPUTER TREATMENT PLANNING (1)
Introduction to computer application in treatment planning in brachytherapy and external beam treatments.
Prerequisite: RAT2022 RAT2241 RAT2618 RAT2657 RAT2824
Corequisite: RAT2619
Pre or Corequisite: RAT2834
Lec Hrs = 48   Lab Hrs = 16   Oth Hrs = 0   Fees = 25.00

RAT2657 QUALITY ASSURANCE AND PHARMACOLOGY (3)
Will present an in-depth study of the principles and concepts of quality assurance and pharmacology to include the history, theory, legal issues, and their relationship to oncology.
Prerequisite: RAT2021 RAT2023 RAT2617
Pre or Corequisite: RAT2022 RAT2241 RAT2618
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 25.00

RAT2814 CLINIC EDUCATION (3)
Patient treatment competency assignments are continued in clinic. The student's responsibilities increase as more complex competencies in patient treatment are mastered. Prerequisite: Program Admission.
Pre or Corequisite: RAT2021 RAT2023 RAT2617
Lec Hrs = 0   Lab Hrs = 0   Oth Hrs = 384   Fees = 29.45

RAT2824 CLINIC EDUCATION (3)
Advanced clinical education stressing practical application of dosimetry competencies under the direct supervision of a medical physicist or dosimetrist. Continuation of advanced patient treatment competencies under the supervision of a registered radiation therapy technologist.
Prerequisite: RAT2021 RAT2023 RAT2617
Pre or Corequisite: RAT2241 RAT2618 RAT2619
Lec Hrs = 0   Lab Hrs = 0   Oth Hrs = 384   Fees = 29.45

RAT2834 CLINIC EDUCATION (5)
The most advanced clinical education as evidenced by the level of competency of the student upon completion of clinic RAT2824. Successful completion of this course will ensure that the student is competent upon graduation to assume all of the responsibilities required of a Registered Radiation Therapy Technologist.
Prerequisite: RAT2241 RAT2618
Pre or Corequisite: RAT2619 RAT2619L
Lec Hrs = 0   Lab Hrs = 0   Oth Hrs = 512   Fees = 29.45

REA0001C COLLEGE PREPARATORY READING I (4)
This course teaches basic reading skills, vocabulary, word recognition skills, and work-study skills. Placement in REA0001C is determined by CPT test scores. An EAP0320C student must have an A, B, or C in EAP0320C and have taken the CPT reading subtest to place into REA0001C.
Lec Hrs = 48   Lab Hrs = 16   Oth Hrs = 0   Fees = 36.00

REA0006C COLLEGE PREPARATORY READING II (4)
Teaches basic reading and study skills to prepare students for college course work. An EAP0320C student must have a A, B, or C in EAP0320C and have taken the CPT reading test to place into REA0006C. Special fee charged. Prerequisite: Completion of REA0001C with a grade of "C" or higher or placement by assessment test or department recommendation.
Lec Hrs = 48   Lab Hrs = 16   Oth Hrs = 0   Fees = 20.00

REA1105 COLLEGE READING STRATEGIES (3)
Teaches efficient reading abilities, comprehension, vocabulary, speed, study techniques, and reading skills necessary to conduct investigative research. REA1105 includes all CLAST skills.
Lec Hrs = 48   Lab Hrs = 16   Oth Hrs = 0   Fees = 0.00

REA1205 ADVANCED COLLEGE READING II (3)
Increases speed, improves analytical, inferential, and critical reading abilities, and teaches advanced study techniques. Special fee charged. Placement by scoring a minimum of 40th percentile on a national college reading test or instructor approval or Prerequisite: REA1105
Lec Hrs = 32   Lab Hrs = 32   Oth Hrs = 0   Fees = 5.00

REE1040 FLORIDA REAL ESTATE COMMISSION I (4)
The Real Estate Commission Course I. It provides an introduction to the basic principles and theories of real property, its economic value, and the legal aspects of real estate law affecting salespersons. Successful completion qualifies a candidate to apply for the State of Florida Salesperson's License Exam.
Lec Hrs = 64   Lab Hrs = 0   Oth Hrs = 0   Fees = 5.00

REE1210 REAL ESTATE FINANCE (3)
This course covers the basics of real estate lending with an emphasis on commercial property. Topics covered include legal issues in real estate lending, risk, appraising income property, and financing of different types of commercial properties.
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00

REL1210 OLD TESTAMENT HISTORY (3)
Reading the English Bible in various documents, and examining selected source material, with emphasis on its cultural importance today. Prerequisite: College-level reading skills.
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00

REL1240 NEW TESTAMENT HISTORY (3)
A study of the social, historical, cultural, and religious environment of the New Testament as well as of the dynamics of the beginnings and spread of the Christian Faith during the First Century A.D. and into the Second Century A.D.
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00

REL2000 INTRODUCTION TO THE STUDY OF RELIGION (3)
An introduction to the study of religion as an academic discipline. The focus of the course is religion, not religions; an attempt is made to acquaint the student with the problems and issues ever present in the understanding of religious phenomena. Meets Area 2G general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Prerequisite: College-level reading skills.
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00

REL2300 WORLD RELIGIONS (3)
Primarily an ideological examination of the world's most popular religions. Meets Areas 2G and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Prerequisite: College-level reading skills.
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00

REL2930 SPECIAL TOPICS; RELIGION (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the REL2930 course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00

RET1026 RESPIRATORY THERAPY EQUIPMENT (3)
This course reviews all of the normally used respiratory therapy equipment except that used for artificial mechanical ventilation or diagnostic procedures. Especially emphasized are methods of manufacturing, storing and administering oxygen; humidity and aerosol therapy, cleaning and sterilization techniques and airway management. Term I.
Prerequisite: BSC1085 CHM1032 MAT1033
Pre or Corequisite: RET1026L
Lec Hrs = 48   Lab Hrs = 0   Oth Hrs = 0   Fees = 0.00
RET1026L RESPIRATORY THERAPY EQUIPMENT LAB (1)
This course allows the student to work with and master the manipulative skills required to utilize respiratory therapy equipment. Emphasis is on oxygen, humidity and aerosol therapy, and airway management.
Prerequisite: BSC1085 CHM1032 MAT1033
Pre or Corequisite: RET1026
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

RET1264 MECHANICAL VENTILATION (3)
This course describes the techniques and hazards of artificial ventilation including IPPB, IMV, CPAP, and PEEP. The principles and operation of all commonly used ventilators are emphasized.
Prerequisite: RET1026 RET1026L RET1485
Pre or Corequisite: RET1264 RET1484 RET1832L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET1484 CARdio PULMONARY PATHOPHYSIOLOGY (3)
This course is designed to introduce the students to the basic concepts of cardiopulmonary disease. Included are mechanisms of altered lung structure airway caliber, neurogenic control and pulmonary vascular function.
Prerequisite: RET1026 RET1026L RET1485
Pre or Corequisite: RET1264 RET1484 RET1832L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET1485 RESPIRATORY PHYSIOLOGY (3)
This course is an in-depth study of the anatomy of the cardiopulmonary system, and a review of the physiology of respiration including ventilation mechanics and control, internal and external respiration, gas exchange, and acid base balance.
Prerequisite: BSC1085, CHM1032, MAT1033, or MTB1310.
Corequisite: RET1026, RET1026L. 3 hrs. Lec. Term I.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET1832L RESPIRATORY THERAPY CLINIC I (3)
In this first clinical course, the students are oriented to, and work at, tasks of a non-critical nature. Included are oxygen and aerosol administration, chest physiotherapy, IPPB administration, and incentive spirometry. Special fee is charged.
Prerequisite: RET1026 RET1026L RET1485
Pre or Corequisite: CVT1200 RET1264 RET1832L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 23.95

RET1833L RESPIRATORY THERAPY CLINIC II (3)
This clinic course represents continuation of the activities in Clinic I. By the end of this term the student must have mastered all non-critical care duties normally performed by respiratory therapists and the fundamentals of adult critical care. Special fee is charged.
Prerequisite: CVT1200 RET1264 RET1484 RET1832L
Pre or Corequisite: RET2418
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 96 Fees = 20.95

RET2286 MANAGEMENT OF THE INTENSIVE CARE PATIENT (2)
This course includes nephrology, renal anatomy and physiology, fluid and electrolyte disorders, and therapy. Additional topics are the management of arrest, of shock, and airway care of the post-op heart patient and labile blood pressures.
Prerequisite: RET2503 RET2714 RET2834L
Pre or Corequisite: RET2601 RET2835L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET2414 RESPIRATORY THERAPY PULMONARY FUNCTION (1)
RET2414 pulmonary function: refined techniques in spirometry gas analysis, and theory of arterial blood gas analysis are discussed. Mass screening and other techniques in diagnosis of respiratory disease are given.
Prerequisite: RET1485
Pre or Corequisite: RET2414L
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET2414L PULMONARY FUNCTION LAB (1)
This course provides the opportunity to practice the techniques used for spirometric determination of lung volumes and flow rates and the basic principles of cardiopulmonary stress testing.
Prerequisite: RET1485
Pre or Corequisite: RET2414
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

RET2418 CARDIOPULMONARY DIAGNOSTICS AND TECHNIQUES (2)
This course examines cardiac anatomy, physiology, and diseases. Diagnostic procedures include EKG's, cardiac catheterization, cusp, and arterial lines, shunt and cardiac output determinations. Drug and other therapeutic regimen are discussed.
Prerequisite: CVT1200 RET1485 RET1832L
Pre or Corequisite: RET1833L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET2503 ADVANCED CARDIOPULMONARY PATHOPHYSIOLOGY (2)
An in-depth examination of the most commonly encountered cardiopulmonary diseases from the physicians' clinical perspective. Emphasized are pathophysiology, physical examination, diagnosis and clinical management.
Prerequisite: RET1833L RET2418
Pre or Corequisite: RET2414 RET2714 RET2834L
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET2601 RESPIRATORY THERAPY MANAGEMENT (1)
This course is designed to assist the student in successfully making the transition from the role of a student to that of a competent member of the health care team. The attainment of the course objectives will provide the student with an understanding and appreciation for the complexity and comprehensiveness of the health care delivery system. Such an understanding will allow the student to assume his rightful role within the health delivery system and enable him to adjust to the dynamics of the system in positive ways that will ensure his or her growth and success.
Prerequisite: RET2503 RET2714 RET2834L
Pre or Corequisite: RET2286 RET2835L
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET2714 PEDIATRIC AND NEONATAL RESPIRATORY (3)
This course emphasizes pediatric and neonatal diseases, their etiology and treatment. It encompasses the newest equipment and techniques used in monitoring and maintaining the infant patient.
Prerequisite: RET1833L RET2418
Pre or Corequisite: RET2414 RET2503 RET2834L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RET2834L RESPIRATORY THERAPY CLINIC III (3)
This clinical course is designed to introduce the student to all aspects of respiratory therapy critical care. The students will work primarily with patients requiring continuous ventilatory support. Special fee is charged.
Prerequisite: RET1833L RET2418
Pre or Corequisite: RET2414 RET2503 RET2714
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 256 Fees = 20.95
### Course Descriptions

#### RET2835L RESPIRATORY THERAPY CLINIC IV (3)
This is a continuation of the activities in Clinic III. The student’s responsibility will increase as his clinical skills become more sophisticated. By the end of this term the student will assume all of the responsibilities required of critical care therapists with patients requiring ventilatory management or support. Special fee is charged.
Pre or Corequisite: RET2414 RET2503 RET2834L
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 256 Fees = 20.95

#### RTE1000 INTRODUCTION TO RADIOLOGIC TECHNOLOGY (3)
The organization and operation of a radiology department; radiologic procedures to include radiation protection, darkroom technique, basic exposure factors, films and film holders, and professional development. Prerequisite: Program Admission.
Pre or Corequisite: RTE1111 RTE1503 RTE1804
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

#### RTE1111 NURSING PROCEDURES RADIOLOGIC TECHNOLOGY (2)
Nursing procedures and patient care issues, as related to diagnostic procedures in radiologic technology. Topics include: legal ethics, infection control, basic patient care, body mechanics, medical emergencies, patients with special needs, pharmacology and drug administration.
Pre or Corequisite: RTE1000 RTE1503 RTE1804
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

#### RTE1418 PRINCIPLES OF IMAGING I (2)
A study of the production and properties of X-radiation, primary exposure factors as they relate to the formulation of radiographic technique, the properties and characteristics of films/film holders and the primary factors of radiographic quality.
Prerequisite: RTE1000 RTE1111 RTE1503
Pre or Corequisite: RTE1513 RTE1613 RTE1814
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

#### RTE1418L PRINCIPLES OF IMAGING I LAB (1)
Practical application of theory taught in RTE1418. Students perform laboratory experiments to demonstrate concepts taught in lecture.
Prerequisite: RTE1000 RTE1111 RTE1804
Pre or Corequisite: RTE1513 RTE1613 RTE1814
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

#### RTE1503 RADIOGRAPHIC ANATOMY AND POSITIONING I (3)
Anatomy and radiographic techniques related to the chest, abdomen, upper and lower gastrointestinal tract, biliary, and urinary systems. Prerequisite: Program Admission.
Pre or Corequisite: RTE1000 RTE1111 RTE1503L
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

#### RTE1503L RADIOGRAPHIC ANATOMY AND POSITIONING I LAB (1)
Practical application of theory taught in RTE1503 class. Students practice techniques relating to radiography of the chest, abdomen, upper and lower gastrointestinal tracts, biliary, and urinary systems. Prerequisite: Program Admission.
Pre or Corequisite: RTE1000 RTE1111 RTE1503
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 20.00

#### RTE1513 RADIOGRAPHIC ANATOMY AND POSITIONING II (3)
The principles of radiographic anatomy and positioning related to the upper and lower extremities including the shoulder and pelvic girdle and the spine to include sacrum and coccyx. Student will learn anatomy of the body parts and the radiographic positions/projections routinely employed in the imaging of these parts.
Prerequisite: RTE1000 RTE1111 RTE1503
Pre or Corequisite: RTE1418 RTE1513L RTE1613
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

#### RTE1513L RADIOGRAPHIC ANATOMY AND POSITIONING II LAB (1)
Laboratory course content parallels the material taught in the lecture portion (RTE1513) which must be taken concurrently with this lab. Course content will include the same topics covered in lecture, i.e., the upper and lower extremity, including shoulder and pelvic girdle and the vertebral column to include sacrum, coccyx and trauma/mobil radiography.
Prerequisite: RTE1000 RTE1111 RTE1503L RTE1804
Pre or Corequisite: RTE1418 RTE1418L RTE1513
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 20.00

#### RTE1561 NON-Routine PROCEDURES (1)
The principles of Radiographics Anatomy related to the vascular system, central nervous system, respiratory system, reproductive system and joints. The contrast media employed for each procedure will be studied. Specialized radiographic equipment used in special procedures as well as a variety of new positioning techniques are studied.
Prerequisite: RTE2385 RTE2457 RTE2457L
Pre or Corequisite: RTE2854
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

#### RTE1613 RADIOGRAPHIC PHYSICS I (2)
Introduction to the fundamentals of physics involved in the operation of radiographic equipment to include: units of measurement, matter, energy, mechanics, magnetism, electростatics, and electrodynamics.
Prerequisite: RTE1000 RTE1111 RTE1503
Pre or Corequisite: RTE1418 RTE1513 RTE1814
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

#### RTE1804 CLINICAL EDUCATION I (2)
Provides the student with clinical experience in the hospital and involves the application of the theory covered in lecture. Also includes darkroom practice, principles of radiology and film critique. Meets 16 hours per week. Term I
Prerequisite: Program Admission.
Pre or Corequisite: RTE1000 RTE1111 RTE1503
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 256 Fees = 45.95

#### RTE1814 CLINICAL EDUCATION II (2)
Continuation of RTE1804 with students performing radiographic examination under direct supervision in clinical education centers. Emphasis is placed on upper and lower extremities, fluoroscopic procedures and film critique. Meets 16 hours per week. Term II.
Prerequisite: RTE1111 RTE1503 RTE1804
Pre or Corequisite: RTE1418 RTE1513 RTE1613
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 256 Fees = 45.95

#### RTE1824 CLINICAL EDUCATION III (2)
A continuation of RTE1814 with students performing radiographic examinations under direct supervision. Emphasis is placed on the spine, thorax, and film critique. Students will begin to perform procedures unassisted. Meets 32 hours per week for 12 weeks. Term III, Year I.
Prerequisite: RTE1418 RTE1513 RTE1814
Pre or Corequisite: RTE1932C
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 45.95
RTE1932C SPECIAL TOPICS (1)
Designed to prepare the student with the necessary knowledge and skills to perform in specialized areas that include: venipuncture and electrocardiography.
Prerequisite: RTE1513 RTE1513L RTE1613 RTE1814
Pre or Corequisite: RTE1824
Lec Hrs = 16 Lab Hrs = 16 Oth Hrs = 0 Fees = 0.00

RTE2385 RADIATION BIOLOGY AND PROTECTION (2)
Study of the biological effects associated with exposure to ionizing radiation and the accepted radiation protection principles and practices. Topics will include radiation sources, radiation/ matter interaction modes, cellular, tissue and total body biological response patterns, radiation detection and measurement and Federal and State radiation protection guidelines relating to equipment and personnel.
Prerequisite: RTE2523 RTE2523L RTE2623
Pre or Corequisite: RTE2457 RTE2457L RTE2844
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

RTE2457 PRINCIPLES OF IMAGING II (2)
A study of the factors that affect radiographic quality, solving technique problems and developing technique charts.
Prerequisite: RTE2523 RTE2523L RTE2623
Pre or Corequisite: RTE2385 RTE2457L RTE2844
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

RTE2457L PRINCIPLES OF IMAGING II LAB (1)
Practical application of theory taught in RTE2457 class. Students perform laboratory experiments to demonstrate factors affecting radiographic quality.
Prerequisite: RTE2523 RTE2623 RTE2834
Pre or Corequisite: RTE2385 RTE2457L RTE2844
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

RTE2473 RADIOGRAPHIC QUALITY ASSURANCE (2)
Practices and procedures related to radiographic quality assurance and quality control.
Prerequisite: RTE2523 RTE2623 RTE2782
Pre or Corequisite: RTE2385 RTE2457L RTE2844
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

RTE2523 RADIOGRAPHIC ANATOMY AND POSITIONING III (3)
The principles of anatomy and positioning related to the skull to include facial bones, sinuses and mastoids; thorax to include ribs and sternum; mammary glands; trauma, pediatric and mobile radiography.
Prerequisite: RTE1824
Pre or Corequisite: RTE2523L RTE2623 RTE2782 RTE2834
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RTE2523L RADIOGRAPHIC ANATOMY AND POSITIONING III LAB (1)
Practical application of the theory taught in RTE2523. Students practice positioning of the cranium and facial area, bony thorax to include ribs and sternum and trauma and pediatric radiography.
Prerequisite: RTE1824
Pre or Corequisite: RTE2523 RTE2623 RTE2782 RTE2834
Lec Hrs = 0 Lab Hrs = 32 Oth Hrs = 0 Fees = 25.00

RTE2563 ADVANCED VASCULAR/INTERVENTIONAL RADIOGRAPHY (3)
Provides advanced study into vascular/cardiovascular/interventional procedures for the special procedures radiographer. This course will provide an overall review of current and future vascular, as well as nonvascular intervention being performed to this date. Emphasis will be on diagnostic and therapeutic procedures and their application in a clinical setting.
Prerequisite: graduation from an accredited radiography program.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

RTE2573 SURVEY OF IMAGING MODALITIES (1)
A study of the imaging modalities which exist in conjunction with the radiology department to include nuclear medicine, diagnostic medical, sonography, C.T. scanning, radiation therapy, and magnetic resonance imaging.
Prerequisite: RTE2523 RTE2782 RTE2834
Pre or Corequisite: RTE2457 RTE2473 RTE2844
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RTE2575 INTRODUCTION TO MAGNETIC RESONANCE (3)
A study of the clinical applications and principles of Magnetic Resonance Imaging. Basic MR physics, history, hardware, safety, and important aspects of the MR exam are among the topics covered to introduce the student to the MR Imaging Technology profession. Prerequisites: Graduation from a two year allied health program.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

RTE2623 RADIOLOGIC EQUIPMENT (3)
A study of the physical basis of operation of radiographic equipment. Emphasis includes x-ray equipment circuitry and components, x-ray tubes, image intensifiers, TV monitors and video recorders, serial film changers, multi-phaeic generators, conventional and digital image subtraction equipment, digital equipment, non-film imaging equipment, accessory equipment and x-ray production and interaction process processes.
Prerequisite: RTE1824
Pre or Corequisite: RTE2523
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 10.00

RTE2782 RADIOGRAPHIC PATHOLOGY (2)
An introduction to the study of human disease and the radiographic appearances of specific diseases. Topics will include: Pathogenesis, disease classification systems, and the study of specific diseases of the respiratory, skeletal, gastrointestinal, urinary, cardiovascular, nervous, hematopoietic, endocrine and reproductive systems with radiologic imaging considerations.
Prerequisite: RTE1824
Pre or Corequisite: RTE2523 RTE2523L RTE2623 RTE2834
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

RTE2834 CLINICAL EDUCATION IV (3)
A continuation of RTE1824 with students performing procedures taught in previous clinical courses. Emphasis is placed on radiography of the skull. The student is expected to work with indirect supervision. Meets 24 hours per week, includes film critique.
Prerequisite: RTE1824
Pre or Corequisite: RTE2523 RTE2623 RTE2782 RTE2834
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 45.95

RTE2844 CLINICAL EDUCATION V (3)
A continuation of RTE2834 with students perfecting positioning skills and learning to work independently. Emphasis is placed on completing clinical competencies. Includes film critique.
Meets 24 hours per week.
Prerequisite: RTE2523 RTE2782 RTE2834
Pre or Corequisite: RTE2385 RTE2457 RTE2457L
Lec Hrs = 0 Lab Hrs = 384 Oth Hrs = 384 Fees = 45.95

RTE2854 CLINICAL EDUCATION VI (1)
A continuation of RTE2844 with students practicing skills independently. Includes rotation through the specialty areas of C.T., nuclear medicine, radiation therapy and ultrasound. Students use this clinical as their elective time and selectively choose an area of specialization. Term III, Session 2 (6 weeks).
Prerequisite: RTE2457 RTE2844
Pre or Corequisite: RTE1561
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 144 Fees = 45.95

RTV2000 INTRODUCTION TO RADIO AND TELEVISION (3)
An introduction to the broadcast media through which the students should gain an understanding of the historical,
technical, legal, and critical aspects of radio and television media.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

RTV2102 BROADCAST WRITING (3)
Designed to give students an opportunity to learn the style of production writing for different types of media/broadcast scripts. The course will emphasize practical broadcast writing skills, radio and television copy techniques and forms of commercial copy, as well as learning the special rules and regulations governing the presentation of materials "over the air." Instructor's approval or
Prerequisite: ENC1101 ENC1102
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RTV2241C TELEVISION PRODUCTION I (3)
In this course the student will acquire understanding of the theory and practice of television program production and directing with emphasis on studio production. There is a requirement of two hours of television laboratory production per week. Completion of RTV2000 recommended prior to taking this course.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RTV2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by students and employer. Prerequisite: Co-Op department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

RUS1120 BEGINNING RUSSIAN I (4)
Fundamentals of speaking, understanding, reading and writing. Classroom practice and exercises supplemented by language laboratory. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

RUS1121 BEGINNING RUSSIAN II (4)
Continuation of RUS1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: RUS1120
Lec Hrs = 64  Lab Hrs = 0  Oth Hrs = 0  Fees = 15.00

SLS1001 STRATEGIES FOR SUCCESS (3)
This course is tailored for First Time in College students and provides opportunities to learn about Broward Community College and higher education, acquire and practice learning strategies, explore personal learning styles, identify career options, and develop life-long skills for responsible citizenship. Required for all degree seeking students that test into 3 college preparatory areas with two at the lowest level. Recommended for all new students.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SLS1261 LEADERSHIP (3)
The purpose of this course is to provide effective leadership skills for student leaders to help them develop an ethical, value grounded leadership style for future educational, organizational and community leadership roles.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SLS1301 CAREER PLANNING WORKSHOP (2)
This course is a study of the career decision making process. The student will learn the skills necessary for career decision making as it applies to their individual characteristics (including values, interests, abilities, goals, strengths, etc.).
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SLS1350 EMPLOYABILITY SKILLS (1)
This course is a study of the methods and techniques used in the job search process with particular emphasis on resume writing, interview techniques, employment communications, and job search strategies.
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SLS1501 COLLEGE SUCCESS SKILLS (1)
This course is designed for first semester freshman students. It serves as an introduction to Broward Community College and assists beginning students in coping with challenges of college life, clarifying their goals and learning strategies and skills that will help them succeed in college and life.
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1100 PRINCIPLES AND PROTOCOLS OF SONOGRAPHY (3)
An introduction to the basic approaches to sonographic scanning and scanning protocols for the abdomen and pelvis. Prerequisite: Program Admission.
Pre or Corequisite: SON1170
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1111 ABDOMINAL SONOGRAPHY I (3)
An introduction to the cross-sectional anatomy of the abdominal area and its recognition on sonographic visualization systems. Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1121 SON1211 SON1214
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1112 ABDOMINAL SONOGRAPHY II (3)
An in-depth presentation of sonographs of the abdominal area stressing deviations from the norm and the studies to make a diagnostically acceptable study. Prerequisite: SON1111 SON1121 SON1211
Pre or Corequisite: SON1122 SON1212 SON1215
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1121 SONOGRAPHIC OB/GYN I (3)
An introduction to the cross-sectional anatomy of the female reproductive system with and without an existing pregnancy. The sonographic recognition of the normal throughout all terms of pregnancy is presented. Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1111 SON1211 SON1214
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1122 SONOGRAPHIC OB/GYN II (3)
The detection of anomalies, pathology, deviation from normal and the planes which must be sonographically imaged for accurate diagnosis is stressed. Prerequisite: SON1111 SON1211 SON1212 SON1215
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1141 SMALL PARTS SONOGRAPHY (3)
A general introduction to the areas of carotid, eye, thyroid, prostate, scrotum, breast and other superficial structures. Prerequisite: SON1112 SON1212 SON1215
Pre or Corequisite: SON1824
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1170 SONOGRAPHY OF THE CIRCULATORY SYSTEM (2)
An introduction to the hemodynamics of the circulatory systems and the sonographic imaging and Doppler assessment of the cardiac and vascular structures. Prerequisite: Program Admission.
Pre or Corequisite: SON1100
Lec Hrs = 32  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SON1211 MEDICAL SONOGRAPHIC PHYSICS I (3)
A study of the principles of diagnostic ultrasound, the fundamental properties of ultrasonic physics, stressing tissue
interactions, and interfaces. Focusing characteristics, methods, intensity, and power considerations are introduced along with system resolution considerations.

Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1111 SON1121 SON1214
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SON1212 MEDICAL SONOGRAPHIC PHYSICS II (3)
A continuation of the study of the properties of diagnostic ultrasound stressing the operation of diagnostic equipment, the display systems, biological effects and quality assurance methods. Current developments in ultrasound are reviewed, discussed, and evaluated.

Prerequisite: SON1111 SON1121 SON1211
Pre or Corequisite: SON1112 SON1122 SON1215
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SON1214 PRACTICAL ASPECTS OF SONOGRAPHY I (3)
A study of the principles of diagnostic ultrasound and practical aspects of scanning techniques, film critique, film identification and patient care and handling as related to sonographic examination. Stressing the operation of diagnostic ultrasound equipment and routine images obtained.

Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1111 SON1121 SON1211
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SON1215 PRACTICAL ASPECTS OF SONOGRAPHY II (3)
Offering more advanced principles of diagnostic ultrasound, adding knowledge of pathological processes. Further presenting the practical aspects of scanning techniques, film critique, film identification and patient care and handling as related to sonographic examination. Stressing the correlation of all patient data, including sonographic images obtained to assist in the differential diagnosis process.

Prerequisite: SON1111 SON1121 SON1214
Pre or Corequisite: SON1112 SON1122 SON1814
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SON1804 CLINIC A (3)
Clinical education requiring application of the knowledge learned. Professionalism and personal interaction are stressed along with technical abilities. As the student progresses he or she will be performing examinations with less and less supervision.

Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1111 SON1121 SON1211
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 45.95

SON1814 CLINIC B (3)
A continuation of the learning by doing process where more responsibility in the form of decision making regarding anatomical areas and resultant imaging is assumed by the student being supervised. 24 Hr. clinical per week. Term II.

Prerequisite: SON1111 SON1211 SON1804
Pre or Corequisite: SON1112 SON1122 SON1212
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 45.95

SON1824 CLINIC C (4)
Application of all the material presented requiring the student to make judgmental decisions regarding technical aspects, to interact in a professional manner with those with whom he or she comes in contact, and to generally progress to the point where he or she may be accepted as a competent sonographer for general sonographic exams.

Prerequisite: SON1112 SON1122 SON1814
Pre or Corequisite: SON1141
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 384 Fees = 45.95

SON2161 NEONATAL NEUROSONOLOGY (2)
An introduction to the sonographic imaging of the neonatal and infant brain. Emphasis is placed on normal brain anatomy, congenital and acquired pathological conditions, as well as sonographic scanning techniques.

Prerequisite: SON2400 SON2834
Pre or Corequisite: SON2401 SON2844
Lec Hrs = 32 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SON2171 VASCULAR SONOGRAPHY (3)
Venous and arterial anatomy and hemodynamic functions, both normal and abnormal are stressed. Sonographic imaging techniques for vascular structures and Doppler spectral analysis of normal and pathological patterns are also studied.

Prerequisite: A.R.D.M.S.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

SON2175 VASCULAR SONOGRAPHY II (3)
Arterial anatomy below the neck and head, and it's hemodynamic functions, both normal and abnormal, are stressed, along with sonographic imaging techniques for arterial vascular structures, non-imaging testing modalities, and Doppler analysis of normal and abnormal flow patterns.

Prerequisite: SON2174
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

SON2176 VASCULAR SONOGRAPHY III (3)
Venous and arterial anatomy and hemodynamic functions of the circulatory system of the neck and head, both normal and abnormal, are stressed, along with sonographic imaging techniques for vascular structures and Doppler analysis of normal and abnormal flow patterns. An understanding of the process of test validation and interpretation of test results will be covered.

Prerequisite: SON2175
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 2.00

SON2400 SONOGRAPHY OF HEART/CHEST I (3)
Anatomy of the heart and the procedures used in screening are introduced stressing recognition of the normal versus abnormal. Prerequisites: Program Admission or Permission by Program Manager and Prerequisite: SON1111 SON1824
Pre or Corequisite: SON2834
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

SON2401 SONOGRAPHY OF HEART/CHEST II (3)
An in-depth presentation of the intricacies of diagnostic ultrasound as it applies to the heart and the chest stressing its capabilities and its limitations. 3 hrs. wk., Term II
Prerequisite: SON2400 SON2834
Pre or Corequisite: SON2161 SON2844
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

SON2834 CLINIC D (3)
A course designed to add additional clinical competencies to those gained in the specialties mastered in the first year. Emphasis on specialty of echocardiography with clinical application of classroom material presented. To continue to make judgement decisions regarding the technical aspects of diagnostic sonoergic exams.

Prerequisite: SON1141 SON1824
Pre or Corequisite: SON2400
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 258 Fees = 45.95

SON2844 CLINIC E (3)
Application of all the materials presented requiring the student to interact in a professional manner, to make judgement decisions regarding the technical aspects, and to generally progress to the point where he/she may be accepted as a competent sonographer. Further mastering of all skills gained, emphasizing echocardiography and cardiovascular examination techniques. Clinical application of classroom material presented.

Prerequisite: SON2400 SON2834
Pre or Corequisite: SON2161 SON2401
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 258 Fees = 45.95

SOP2002 SOCIAL PSYCHOLOGY (3)
This course provides scientifically based constructs used in understanding social phenomena and their impact on the
individual. Identification of the social and psychological variables that give human behavior a predictable base is stressed. Topics considered include human nature, psychological development, sex role identification love, affiliation, aggression, image management, attitudes, opinion manipulation, morality, leader-ship, group dynamics, attribution and construct theory.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**SOS1102 SOILS AND FERTILIZERS (3)**
The study of the complex problems involved in the use of existing soils and growing media in South Florida for commercial production of ornamental plants and turf. Fertilizer programs and formulations will be discussed thoroughly.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**SOS2242C WETLANDS MANAGEMENT I (3)**
This course provides the background to define a wetland using indigenous plant forms, aquatic conditions, geology and applicable laws and regulations. The strategies and techniques needed to maintain natural habitats are outlined. Course consists of classroom and extensive field work. Completion of any of the horticultural biology, zoology, or native plant courses would be helpful and is suggested.

Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**SOS2243C WETLANDS MANAGEMENT II (3)**
This course provides the background needed to design, implement, monitor and maintain a functional wetland, both fresh water and coastal, in South Florida. Course consists of classroom and extensive field work.

Prerequisite: SOS2242C

Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 10.00

**SOW2020 INTRODUCTION TO SOCIAL WELFARE (3)**
This is a beginning course in the behavioral science based field of social work. It aims at introducing the student to the historical, political policy and methodological systems that have interacted to produce the institutions of welfare services and the profession of social work.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**SOW2054 SOCIAL SERVICE FIELD EXPERIENCE I (3)**
A survey and orientation to organization, and operations of the social service setting. Contact with and participation in social service agencies to make students aware of community resources is a goal of this course. Part of the course's activities can include volunteer participation in an agency or a supervised review of an agency in which a person is employed.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**SPA1612 AMERICAN SIGN LANGUAGE I (4)**
Upon completion of this course students will have acquired American Sign Language vocabulary totaling approximately 500 concepts, linguistic principles of ASL and information related to deafness and deaf culture. Students should check individual university program requirements for transferability. On Demand.

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

**SPA1613 AMERICAN SIGN LANGUAGE II (4)**
Upon completion to this course, students will have acquired American Sign Language vocabulary totaling approximately 500 concepts, intermediate level linguistic principles of ASL and information related to deafness and deaf culture. Content builds upon the foundation laid in SPA1612. After completing SPA1612 and 1613, students should have a receptive and expressive sign vocabulary of approximately 1000 concepts. Students should check individual university program requirements for transferability. On Demand.

Prerequisite: SPA1612

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

**SPA2001 INTRODUCTION TO SPEECH DISORDERS (3)**
Upon the completion of this course the student should have an understanding of the types, causes, and therapeutic methods relative to primary speech disorders with emphasis on preschool and elementary school populations.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**SPA2614 AMERICAN SIGN LANGUAGE III (4)**
Upon completion of this course, students will have acquired American sign language vocabulary totaling approximately 500 concepts and intermediate to advanced level linguistic principles of ASL, including fingerspelling. Use of the signing space to set up person, objects, place and time will be stressed. Information on the cultural and communication aspects of ASL will also be covered. Content builds upon the foundation established in SPA1612 and SPA1613. After completing the three courses, students should have a receptive and expressive sign vocabulary of approximately 1500 concepts. Students are strongly advised to check with the college or university of their choice for acceptance of these credits to fulfill their entrance and/or exit language requirements.

Prerequisite: SPA1613

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

**SPA2615 AMERICAN SIGN LANGUAGE IV (4)**
Upon completion of this course, students will have acquired American sign language vocabulary totaling approximately 500 concepts. Conceptual accuracy in sign choices will be stressed. Advanced level linguistic principles will be covered including the linguistic and semantic differences between ASL and English. The course will emphasize receptive understanding of ASL through the study of native deaf signers. Indirect discourse for recounting stories will be emphasized. Content builds upon the foundation established in the three previous courses in ASL. After completing the four courses, students should have a receptive and expressive sign vocabulary of approximately 2000 concepts. Students are strongly advised to check with the college or university of their choice for acceptance of these credits to fulfill their entrance and exit language requirements.

Prerequisite: SPA2614

Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 5.00

**SPC0252 PLAY PRODUCTION (3)**
A course designed to investigate the problems of choosing and analyzing the script, casting, rehearsal, costuming, make-up, organization and management of the educational theatre.

Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

**SPC0255 ACTING (3)**
The techniques of acting, including expressive use of the body and voice in characterization. Exercises from various types of plays for business, movement, pacing, emotional expression, creation and projection of character.

Lec Hrs = 32 Lab Hrs = 32 Oth Hrs = 0 Fees = 0.00

**SPC1024 INTRODUCTION TO SPEECH COMMUNICATION (3)**
This course is designed to provide students with the fundamentals of speech communication including speaking and listening. Topics include: intrapersonal, interpersonal, verbal, nonverbal, small group communication, and public speaking in various cultural contexts. Meets Areas 1C, 7, and 8 general education requirements for the A.A. degree. Meets Area 5 general education requirements for the A.S. degree.

Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

**SPC1050 VOICE AND DICTON (3)**
Through observation, study and practice, the student should acquire an understanding of the speech mechanism, a knowledge of its proper use, and improvement of individual voice and diction.

Lec Hrs = 32 Lab Hrs = 16 Oth Hrs = 0 Fees = 0.00
SPC1420 INTRODUCTION TO GROUP TECHNIQUES (3)
Upon completion of this course, the student will have acquired communication skills that will enable him or her to function more effectively in various group settings utilizing group discussions and conference techniques to resolve social, business and professional problems.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPC1511 ARGUMENTATION AND DEBATE (3)
The student, upon completion of this course, should achieve proficiency in the principles of argumentation including analysis, evidence, inference, and refutation as they pertain to the debate situation in democratic society.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPC1600 INTRODUCTION TO PUBLIC SPEAKING (3)
This course is designed to provide students with fundamental training and practical experience for speaking in public, business, and professional situations. Topics include: audience analysis, speech anxiety, critical listening, and preparation and delivery of speeches in various cultural contexts. Meets Areas 1C, 7, and 8 general education requirements for the A.A. degree. Meets Area 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPC2300 INTRODUCTION TO INTERPERSONAL COMMUNICATION (3)
Upon completion of this course, the student should demonstrate an understanding of the basic concepts of interpersonal communication with emphasis on perception, self-awareness, dyadic communication, small group communication, and communication conflict.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPC2330 NONVERBAL COMMUNICATION (3)
This course explores the various facets of nonverbal communication. The following nonverbal cues will be emphasized: movement, space, distance, physical characteristics, dress, object language, eye contact, signs, paralanguage, and environmental cues. The focus of the course will be the role that these cues play on communication.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPN1000 ELEMENTARY SPANISH CONVERSATION (3)
A custom made course for those residents in the community who require a cursory knowledge of Spanish to help them communicate with Spanish speaking people. One hour language laboratory weekly. Special fee charged. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPN1120 BEGINNING SPANISH I (4)
Fundamentals of speaking, understanding, reading and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with SPN1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

SPN1121 BEGINNING SPANISH II (4)
Continuation of SPN1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Prerequisite: SPN1120
Lec Hrs = 64 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

SPN1170 SPANISH STUDY TRAVEL (3)
A course designed for students who wish to combine the study of Spanish with subsequent travel to a Spanish speaking region. Prerequisite: SPN1100 or SPN1000 or instructor's approval. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs = 0 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPN2201 INTERMEDIATE SPANISH II (3)
Emphasis on composition, comprehension and conversation. Interesting tour through Spanish history, geography and literature. Aim of course to give student a necessary background in the culture of Spain and to gain more fluency in oral and written expression. This course completes intermediate year. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: SPN2200
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPN2220 INTERMEDIATE SPANISH I (4)
Review of the most essential grammatical structures with an introduction of new grammatical and idiomatic material. Composition and readings in Spanish prose. Conversation at an easy and enjoyable pace. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Special fee charged.
Prerequisite: SPN1121
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

SPN2240 INTERMEDIATE SPANISH CONVERSATION (3)
Course may be taken in conjunction with SPN2220 or SPN2201 but cannot displace either one of those courses as a college parallel requirement. The purpose of this course is to permit that student who wishes to increase his comprehension and speaking facility in Spanish to be in a class where the emphasis is totally on the oral approach and where a greater variety of topics will be discussed at a faster pace than the required 2201 course would allow. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: SPN1120 SPN11121
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 15.00

SPN2240 BEGINNING SPANISH FOR SPANISH SPEAK (4)
This course is designed for Spanish Speakers who have an oral command of the language but whose knowledge of written and/or formal Spanish is incomplete. Class is conducted in Spanish with emphasis on improvement of spelling, grammar, vocabulary, reading, writing, and oral skills. Emphasis will be placed on the correction of typical errors created by the influence of the English language. Every unit will cover important cultural aspects of the Hispanic world. Prerequisite: SPN1120 SPN1121
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 15.00

SPN2441 SPANISH IN THE BUSINESS WORLD (3)
More advanced study of Spanish business documents with particular emphasis on the writing of business letters, commercial legal documents and translation. Prerequisite: instructor's approval. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPN2955 STUDY ABROAD: ADVANCED COMPOSITION (3)
For students wishing to attain greater proficiency in spoken and written Spanish. Conversation and composition based on selected readings and a variety of contemporary topics. Meets Area 8 general education requirements for the A.A. This course is used only in BCC Study Abroad Programs.
Prerequisite: SPN2201
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SPN2956 STUDY ABROAD: ADVANCED COMPOSITION (3)
For students wishing to attain greater proficiency in spoken and written Spanish. Strongly recommended for majors. Conducted entirely in Spanish. Conversation and composition based on selected readings and a variety of contemporary topics, together with readings in contemporary prose and poetry. Meets Area 8 general education requirements for the A.A. degree. This course is used only in the BCC Study Abroad Programs.
Prerequisite: SPN2201
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
Course Descriptions

STA2023 STATISTICS (3)
A first course in statistical methods including such topics as collecting, grouping, and presenting data; measures of central tendency, position, and variation; theoretical distributions; probability; test of hypotheses; estimation of parameters; and regression and correlation. Use of statistical computer software and/or a scientific calculator (capable of performing 2-variable regression and correlation) will be required. Meets Areas 5A or 6 of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.A. degree. Prerequisite: MAT1033
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 20.00

SUR2001 SURVEYING I (1)
The theory of construction surveying including the use and care of surveying instruments. Prerequisite satisfied or instructor approval.
Pre or Corequisite: MAC1105
Lec Hrs = 16 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SUR2001L SURVEYING I LAB (2)
The student is required to assume various duties as a member of a survey party. Field practice includes setting corner stakes, batter boards, bench marks. Prerequisite satisfied or instructor approval.
Pre or Corequisite: MAC1105
Lec Hrs = 0 Lab Hrs = 48 Oth Hrs = 0 Fees = 40.00

SUR2140C SURVEYING II (3)
Highway surveying including horizontal and vertical curves. Traverse computations using the electronic calculator. Familiarization with advanced techniques such as laser, tellurometer and geodimeter equipment. Prerequisite: SUR2001 SUR2001L
Lec Hrs = 48 Lab Hrs = 16 Oth Hrs = 0 Fees = 40.00

SYG1931C TEA: SOCIAL, MULTICULTURAL ISSUES AND FIELD EXPERIENCE (3)
This course is the third in a series of four professional seminars for students enrolled in TEA courses seeking an A.A. degree from BCC. General analysis of educational practices and their impact on students and society through a scientific consideration of modern social and multicultural forces on personal experiences, social behavior and academic performance.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2000 PRINCIPLES OF SOCIOLOGY (3)
General analysis of the structures and functions of society and culture through a scientific consideration of the influence of social and cultural forces on personal experiences and social behavior. Meets Areas 3B and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2010 SOCIAL PROBLEMS (3)
The study of the social and cultural aspects, incidence, and characteristics of selected social problems. Meets Area 3B general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2212 SOCIETY AND THE ENVIRONMENT (3)
A study of humanity's social systems and the resulting impact of their technologies on the natural environment and natural life support systems.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2230 CONTEMPORARY RACE AND ETHNIC STUDIES (3)
A study of minority dominant relations with emphasis on ethnic, racial, and religious minorities.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2322 JUVENILE DELINQUENCY (3)
A study of juvenile and delinquent behavior and its development which focuses on the social structure of society to find patterns of delinquent activity and its causations.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2323 INTRODUCTION TO CRIMINOLOGY (3)
A study of crime and criminal behavior, and its cause and related effects on society, with an emphasis given to criminal theory, and the sociological implications of criminal behavior.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2340 SOCIOLOGY OF HUMAN SEXUALITY (3)
A survey of the sociological, psychological, and physiological sources of human sexuality and their impact on contemporary social attitudes and behavior.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2421 MARRIAGE AND FAMILIES: INTERCULTURAL COMPARISON (3)
A study of the institution of the family utilizing historical, cross cultural and sub-cultural comparisons to understand the background evolution and current familiar structures of the world.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2441 SOCIAL INSTITUTIONS (3)
A study of the institutions of pre-industrial, industrial, and post-industrial societies. Special emphasis is on theories of social organization, social change, and the exploration of each institution in world societies. Meets Areas 3B and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00

SYG2905 INDEPENDENT STUDY IN SOCIOLOGY (3)
A directed study course in Sociology. The course will be available to both majors and non-majors who wish to investigate a particular problem. The student will make application for the course to the Head of the Behavioral Sciences Department via an instructor with whom he wants to work. Prerequisite to be ascertained by the instructor and the Department Head.
Lec Hrs = 48 Lab Hrs = 0 Oth Hrs = 0 Fees = 0.00
SYG2930 SPECIAL TOPICS: CURRENT ISSUES IN (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the SYG2930 course title published in the course schedules for each term the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SYG2940 SOCIOLOGY FIELD SCHOOL (1)
This course is designed to provide an on-scene study of sociological topics from the various perspectives provided in a field school setting. Laboratory research and observational techniques are used in providing the learning experiences of this course. Instructor's approval.
Lec Hrs = 16  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

SYG2942 SOCIOLOGY FIELD SCHOOL (3)
This course is designed to provide an on-scene study of sociological topics from the various perspectives provided in a field school setting. Laboratory research and observational techniques are used in providing the learning experiences of this course in domestic and foreign social settings.
Prerequisite: Instructor approval.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

TAR2122 COMMERCIAL ARCHITECTURAL DRAFTING (3)
This course enables the student to provide architectural drawings and study construction methods and techniques used in commercial buildings. Special attention is directed to the practice of prestressed/precast concrete beams and structural steel members. AutoCAD/ArchicAD will be used extensively as one of the tools for preparing drawings.
Prerequisite: ETD1320
Lec Hrs = 16  Lab Hrs = 48  Oth Hrs = 0  Fees = 5.00

TAR2142C ARCHITECTURAL 3D RENDERING (3)
Rendering is the step after the formation of a building's exterior. 3D rendering is used to show the exterior of a building before it is constructed. This course is designed to teach students the use of AutoCAD/3ds Max and other rendering software to create realistic images of buildings. Students will learn how to use these tools to create realistic images of buildings before they are constructed.
Prerequisite: TAR2142C
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 40.00

TAR2144C ARCHITECTURAL 3D SPACE AND ANIMATION (3)
Architecture 3D Space & Animation is the last of a series of classes in 3D modeling and rendering that enables architects to not only visualize the completion of a building, but also to create animations of the building's design. This course will teach students how to use 3D modeling and animation software to create realistic images of buildings.
Prerequisite: ETD1320
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 40.00

TAR2154 MULTI STORY ARCHITECTURAL DRAFTING (3)
This course enables the student to provide architectural drawings and study construction methods and techniques used in high-rise buildings. Special attention is directed to air conditioning, vertical transportation, refuse disposal, parking, and landscaping fundamentals.
Prerequisite: TAR2122
Lec Hrs = 16  Lab Hrs = 48  Oth Hrs = 0  Fees = 5.00

TAX2010 INCOME TAX I (3)
This course covers principles of federal income taxation applicable to individuals. The course is designed for students to acquire the basic knowledge necessary in the preparation of individual tax returns. Sample tax returns will be prepared. Offered Terms I and II North and Central Campuses, Term II on South Campus.
Lec Hrs = 0  Lab Hrs = 48  Oth Hrs = 0  Fees = 0.00

TAX2051 CHILDREN'S THEATRE PRODUCTION (3)
Participation in the rehearsal and production of the children's Theatre Program, which continues during the entire term. Corequisite: THE2052L
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

TAX2052L CHILDREN'S THEATRE TECHNICAL (3)
Participation in the technical aspects of the children's Theatre Technical Program. Corequisite: THE2051L
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

THE2100 INTRODUCTION TO THEATRE HISTORY (3)
An evolutionary study of the Theatre from the 5th century B.C. to the present day.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

THE2300 SURVEY OF DRAMATIC LITERATURE (3)
A study of plays from the time of the early Greek to the current dramatists in light of the historic, philosophic, socio-political milieu of the era that promulgates the particular genre. Plays will be analyzed from a dramaturgical point of view.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

TPA1290 TECHNICAL THEATRE LAB I (1)
Participation as technician in the dramatic and musical productions of the college. May be repeated four times for credit. Instructor's permission required for enrollment.
Lec Hrs = 48  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPA1291 TECHNICAL THEATRE LAB II (2)
Participation as technician in the Dramatic and Musical productions of the college. May be repeated four times for credit. Instructor's permission required for enrollment.
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 0.00

TPA1292 TECHNICAL THEATRE LAB III (3)
Participation as technician in the Dramatic and Musical productions of the college. May be repeated four times for credit. Instructor's permission required for enrollment.
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

TPA2000C INTRODUCTION TO THEATRE DESIGN (3)
An introduction to the techniques, practices, and processes in scenic, lighting, costume, and sound design. The course includes a period styles overview, script analysis, and a survey of appropriate paperwork required by each area.
Prerequisite: TPA2200
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPA2060 SET DESIGN (3)
Research and execution of the visual environment of the play. Assigned projects will include pencil and ink drawings, layouts, ground plans, elevations, renderings, and models.
Prerequisite: TPA2200
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00
Course Descriptions

TPP1190L SUMMER THEATRE/TECHNICAL PRODUCTION  (3)
Participation in the technical aspects of a theatrical production including but not limited to stagecraft, set design, properties, costuming, wardrobe, lighting, sound, stage makeup and house management.
Corequisite: TPP2190L
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

TPA2200 STAGECRAFT  (3)
An investigation of the principles of stagecraft, lighting, props and set construction.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPA2220 INTRODUCTION TO STAGE LIGHTING  (3)
An historical background of theatrical lighting technology and design and an introduction to the tools and concepts used by the lighting technician from primitive equipment to the modern computer system.
Prerequisite: TPA2200
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPPA2248 MAKEUP FOR STAGE AND TELEVISION  (3)
The theoretical and practical application of all types of straight and character make-up for the stage and television.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP1190L PERFORMANCE LAB I  (1)
Upon successful completion of this course, students will be able to analyze and create a dramatic character on stage in a theatrical production of the college. For each production, students will learn to understand the genre of the play and adopt appropriate acting styles and techniques. They will learn how to uncover clues in the script which will reveal character objectives and tactics. Additionally, students will create characters through analysis, improvisation, and the development of psychophysical actions grounded in the given circumstances of the play. This information will guide the student actor to make distinct choices regarding the physical and vocal qualities of each character being portrayed.
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP1191L PERFORMANCE LAB II  (2)
Upon successful completion of this course, students will be able to analyze and create a dramatic character on stage in a theatrical production of the college. For each production, students will learn to understand the genre of the play and adopt appropriate acting styles and techniques. They will learn how to uncover clues in the script which will reveal character objectives and tactics. Additionally, students will create characters through analysis, improvisation, and the development of psychophysical actions grounded in the given circumstances of the play. This information will guide the student actor to make distinct choices regarding the physical and vocal qualities of each character being portrayed.
Lec Hrs = 0  Lab Hrs = 64  Oth Hrs = 0  Fees = 0.00

TPP1192L PERFORMANCE LAB III  (3)
Upon successful completion of this course, students will be able to analyze and create a dramatic character on stage in a theatrical production of the college. For each production, students will learn to understand the genre of the play and adopt appropriate acting styles and techniques. They will learn how to uncover clues in the script which will reveal character objectives and tactics. Additionally, students will create characters through analysis, improvisation, and the development of psychophysical actions grounded in the given circumstances of the play. This information will guide the student actor to make distinct choices regarding the physical and vocal qualities of each character being portrayed.
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

TPP2110 ACTING I  (3)
Study and development of acting skills concentrating on the student's ability to believe and exist in imaginary circumstances as if they were real, and to transmit those beliefs clearly and artfully to an audience.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP2111 ACTING II  (3)
Building on the foundations established in Acting I, Acting II focuses on a close examination of the dramatic text which becomes the basis for character development and scene work. Students will analyze and perform two scenes during the term. Additional experience is also gained with the monologue by analyzing and performing two longer speeches.
Prerequisite: TPP2110
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP2190L REHEARSAL AND PERFORMANCE I  (3)
Participation in the audition, rehearsal and performance process of a theatrical stage production.
Corequisite: TPA2192L
Lec Hrs = 0  Lab Hrs = 96  Oth Hrs = 0  Fees = 0.00

TPP2300C DIRECTING  (3)
An academic study and practical application of the art and craft of directing a play. An investigation of the components of the theatre experience as they relate to the work of the director.
Prerequisite: TPP2111
Pre or Corequisite: TPA2200 TPP2500C TPP2700C
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP2500C MOVEMENT FOR THE ACTOR  (3)
An academic study and practical application of body movement technique for the actor. Students will extend their own range of movement through vocal and physical effort training and free themselves from any personal movement habits.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP2531 STAGE COMBAT  (1)
Armed and unarmed combat techniques for the stage.
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP2700C INTRODUCTION TO VOICE  (3)
An academic study and practical application of the efficient and effective use of the speaking voice, particularly in meeting the special demands of acting for the stage. Following a thorough introduction to the International Phonetic Alphabet students will learn the theories and principles of good voice and articulation of general American speech. The theories and principles of the course will be applied in written assignments, oral performances before the class, and through vocal exercises done in class, the learning resources language laboratory, and at home.
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

TPP2701C VOICE AND ARTICULATION II  (3)
Application of techniques studied in Intro to Voice, with emphasis on the study of vocal posture and the International Phonetic Alphabet. Students will continue to improve articulation and pronunciation, as they learn to apply differentiation of sounds and adjustment of vocal posture to achieve a neutral American Dialect. Learned skills will then be utilized to master three popular stage dialects. The theories and principles of the course will be applied in written assignments, oral performances before the class, and through vocal exercises done in class, the learning resources language laboratory, and at home.
Prerequisite: TPP2700C
Lec Hrs = 32  Lab Hrs = 32  Oth Hrs = 0  Fees = 0.00

WOH1951 ISRAEL PROGRAM II  (16)
This is a holding course. A mechanism by which students enrolled in a study abroad program (Israel) can receive institutional credit.
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00
WOH1952 ISRAEL PROGRAM I (15)
This is a holding course. A mechanism by which students enrolled in this travel and study abroad program (Israel) can receive institutional credit.
Lec Hrs = 0  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

WOH2040 WORLD IN THE 20TH CENTURY (3)
An examination of the major political, social, economic, intellectual, diplomatic, and military developments and events of the 20th century. A chronological approach to several major themes which frame the history of the contemporary world; the decline of European hegemony in the course of two major wars and a world depression; the concomitant challenge to western supremacy from Asia; a half-century of superpower hostility following the outbreak of the Cold War; and the transformation of global politics in the course of declining superpower hegemony. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ZOO2010 GENERAL ZOOLOGY (3)
Basic course pertaining to the development, anatomy, physiology, genetics, ecology and natural relationships of the animal kingdom. Meets Areas 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: ZOO2010L
Lec Hrs = 48  Lab Hrs = 0  Oth Hrs = 0  Fees = 0.00

ZOO2010L GENERAL ZOOLOGY LAB (1)
Laboratory experiments and activities to accompany ZOO2010. one two-hour period weekly. Special fee charged. Dissection of animals is a component of this course. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs = 0  Lab Hrs = 32  Oth Hrs = 0  Fees = 30.00