



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**LAST REVIEW: 2006-07**

*(i.e. 2003-2004)*

**NEXT REVIEW: 2010-11**

*(i.e. 2008-2009)*

**STATUS: A**

*(A, I, D)*

**COURSE TITLE: Data Warehousing**

**COMMON COURSE NUMBER: CAP2775C**

**CREDIT HOURS: 3**

**CONTACT HOUR BREAKDOWN**

*(per 16 week term)*

**CLOCK HOURS:**

*(Voc. Course ONLY)*

Lecture: 40      Lab: 8

Clinic:              Other:

**PREREQUISITE(S): COP2740C**

**COREQUISITE(S):**

**PRE/COREQUISITE(S):**

**COURSE DESCRIPTION:** *(750 characters, maximum)*

In this course students study the issues involved in planning, designing, building, populating, and maintaining a successful Data Warehouse. Students learn the reasons why data warehousing is a compelling decision-support solution in 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.

## **UNIT TITLES**

- 1. Data Warehouse Fundamentals**
- 2. Planning and Managing the Data Warehouse project.**
- 3. Modeling the Data Warehouse**
- 4. Extracting Data**
- 5 Transforming Data**
- 6. Loading Data**
- 7 Refreshing Warehouse Data**
- 8. Creating a Metadata Trail**
- 9. Managing a Data Warehouse.**



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**Common Course Number: CAP2775C**

## **UNITS**

### **Unit 1**

#### **General Outcome:**

##### **1.0 Data Warehouse fundamentals**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 1.1 Compare Data Warehouses with Online Transaction Processing.
- 1.2 Describe typical uses for a Data Warehouse.
- 1.3 Explain common Data Warehouse definitions and concepts.
- 1.4 Contrast Data Warehouse and Data Mart.
- 1.5 Describe dependent and independent Data Marts.



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## **Unit 2**

### **General Outcome:**

**2.0 Planning and Managing the Data Warehouse project.**

### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 2.1 Weigh financial issues of Data Warehouse creation
- 2.2 Obtain business commitment to the project.
- 2.3 Gather end user and business requirements.
- 2.4 Evaluate and initiate the Warehouse project.
- 2.5 Implement processes and requirements.



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**Unit 3**

**General Outcome:**

**3.0 Students will learn to model the Data Warehouse.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 3.1 Understand Data Warehouse design phases.
- 3.2 Choosing Warehouse architecture.
- 3.3 Create a dimensional model.
- 3.4 Use time in the Data Warehouse.
- 3.5 Use summary data
- 3.6 Create a physical Data Warehouse model.



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**Unit 4**

**General Outcome:**

**4.0 Students will learn to extract data.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 4.1 Examining data sources
- 4.2 Extracting Data
- 4.3 Extraction Techniques
- 4.4 Planning for Transformation.



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**Unit 5**

**General Outcome:**

**5.0 The student shall understand Transforming Data.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 5.1 Compare and choose data transformation solutions
- 5.2 Resolve data quality issues.
- 5.3 Explain data scrubbing.
- 5.4 Describe and utilize transformation tools.
- 5.5 Describe and utilize transformation techniques.



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**Unit 6**

**General Outcome:**

**6.0 The student shall work with loading data into the Data Warehouse.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 6.1 Load data into the Data Warehouse.
- 6.2 Build the loading process.
- 6.3 Load the data.
- 6.4 Post-process loaded data.
- 6.5 Verify data integrity.



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**Unit 7**

**General Outcome:**

**7.0 The student shall refresh Warehouse data.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 7.1 Capture and apply changed data.
- 7.2 Batch load requirements.
- 7.3 Understand limitations of methods in applying change.
- 7.4 Purge and archive data.



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**Unit 8**

**General Outcome:**

**8.0 The student shall create a Metadata trail.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 8.1 Define Warehouse metadata.
- 8.2 Develop a metadata strategy.
- 8.3 Examine types of metadata.
- 8.4 Utilize common Warehouse metadata.



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## **Unit 9**

### **General Outcome:**

**9.0 The student shall learn to manage the Data Warehouse.**

### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 9.1 Manage Data Warehouse transition to a production environment.
- 9.2 Manage the growth of the Data Warehouse.
- 9.3 Manage backup and recovery aspects of the Data Warehouse.
- 9.4 Identify Data Warehouse performance Issues.
- 9.5 Managing Data Warehouse Security