



# Broward Community College

## Course Outline

STATUS:   A  

COMMON COURSE NUMBER:   IND1607C  

COURSE TITLE:   Ergonomic Environments  

CREDIT HOURS:           3          

**CONTACT HOURS BREAKDOWN:**

Lecture/Discussion           32          

Lab           32          

Other                           

Contact Hours/Week           4          

**CATALOG COURSE DESCRIPTION:**

This course provides an in-depth analysis of ergonomic planning principles in special purpose spaces and for people with special needs.

Prerequisite: IND 1022

Corequisite: N/A

**UNIT TITLES:**

1. Human Factors and Social Responsibility
2. Kitchen Design
3. Bathroom Design
4. Special Purpose Spaces and Uses

## **I. Course Overview:**

Upon successful completion of this course, the students should be able to demonstrate an understanding of the application of anthropometric studies in the design of interior environments for a wide variety of human functions and needs. Emphasis is focused on exploration of industry standard for the design of kitchens and baths as established by the National Kitchen and Bath Association (NKBA) and the design of public spaces and the design of environments for special populations as defined by the American with Disabilities Act (ADA) regulations.

## **II. Units:**

### **Unit 1. Human Factors and Social Responsibility**

#### General Outcome:

- 1.0 The students should be able to demonstrate an understanding of the variety of human factors involved in the design of interior environments and an overview of the governing codes and industry standards.

#### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 Relate the history of the study of anthropometrics and its wide-ranging applications in the contemporary marketplace.
- 1.2 Identify and explain basic principles behind the American's with Disabilities Act.
- 1.3 Identify and explain basic principles behind the industry standards published by the National Kitchen and Bath Association (NKBA).
- 1.4 Identify the basic principles of universal design.
- 1.5 Recognize the design requirements that apply to people with special needs, e.g., children, the elderly, people with disabilities.

## Unit 2. Kitchen Design

### General Outcome:

- 2.0 The students should be able to apply the industry standards of kitchen design to an interior space designed for a special needs client.

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 2.1 Be familiar with the variety of kitchen cabinetry styles, surfacing materials, appliances and hardware.
- 2.2 Identify human ergonomic considerations and kitchen arrangements considerations of kitchen design.
- 2.3 Discuss the 40 Guidelines of Kitchen Planning as defined by the NKBA.
- 2.4 Apply NKBA kitchen planning guidelines and specify appropriate equipment and materials for a residential interior space.
- 2.5 Demonstrate an understanding of NKBA graphic and presentation standards.

### Unit 3. Bathroom Design

#### General Outcome:

- 3.0 The students should be able to apply the industry standards of bathroom design to an interior space designed for a special needs client.

#### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 3.1 Be familiar with the variety of bath cabinetry styles, surfacing materials, fixtures and hardware.
- 3.2 Identify human ergonomic considerations and kitchen arrangements considerations of bath design.
- 3.3 Discuss the 41 Guidelines of Bathroom Planning as defined by the NKBA.
- 3.4 Apply NKBA bathroom planning guidelines and specify appropriate fixtures and materials for a residential interior space.
- 3.5 Demonstrate an understanding of NKBA graphic and presentation standards.

## Unit 4. Special Purpose Spaces and Uses

### General Outcome:

- 4.0 The students should be able to interpret the ergonomic considerations of special purpose spaces.

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 Identify ergonomic considerations of interior residential special purpose spaces; home office, studio, media rooms, etc.
- 4.2 Identify ergonomic considerations of exterior residential special purpose spaces, e.g., courtyards, atriums, patios, pools, roof deck, etc.
- 4.3 Identify ergonomic considerations of public interiors, e.g., restaurants, retail, hospitality, exhibition, healthcare, etc.