# Course Prefix/Number/Title: CIS 188 Application Design

## Number of credits: 3 Semester Hours

**Course Description:** This course provides an introduction to the field of human-computer interaction (HCI). Students will learn practical principles and guidelines needed to develop high quality interface designs—ones that users can understand, predict, and control. Students explore theoretical foundations, design processes, examples of direct manipulation, menu selection, and form fill-in to gain an understanding of excellence in design. Current HCI topics are explored with balanced emphasis on mobile devices, Web, and desktop platforms. It addresses the profound changes brought by user-generated content of text, photo, music, and video and the raised expectations for compelling user experiences.

# Pre-/Co-requisites: Pre- or Co-requisite - CIS 181

Course Objectives: Upon completion of this course, the student will be able to:

- Utilize guidelines and theories to create interactive systems
- Manage Design Processes
- Organize Design to Support Usability
- Understand Development Methodologies
- Evaluate Interface Designs
- Utilize Various Interaction Styles
- Understand Design Issues

### Instructor: Trisha Nelson

Office: Minot State University campus, Old Main 307

**Office Hours:** By appointment

Phone: 701-858-3313

Email: trisha.nelson@dakotacollege.edu

Lecture/Lab Schedule: Online

Textbook(s): Digital curriculum; readings provided by instructor

**Course Requirements**: Instruction procedures include lecture, demonstrations, class discussion and objective exams, and final project. Assignments and quizzes within each chapter are due within specified time frames. Refer to the schedule for specific due dates.

- 1. The student is expected to complete all the course material within the time allotted and is responsible for all material covered during any absence.
- 2. Each student is expected to participate in all discussions, complete all assignments and exams by the posted due date. No credit will be given for partially completed assignments.
- 3. Late assignments will not be accepted.
  - a. In very extenuating circumstances, the instructor might accept late work with prior approval. Then three points for each day late will be deducted on accepted late work. The final day to turn in accepted late work for a chapter is on the scheduled due date. No lab assignments will be accepted or will be given credit after the due date for a chapter.

### **Grading Policy:**

Your performance in this class will be based on the quality and accuracy of your projects and answers on assignments, quizzes, and tests. Each test, assignment, worksheet, and quiz are assigned a specified number of points. The points achieved by you are totaled. The total number of points possible is then divided into your total, giving a percentage.

Grading Scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, and F=Below 60%

### Tentative Course Outline:

Please follow the order of units as each unit will build onto the next one and will be accessible according to the schedule posted within the online course.

#### Part 1. Introduction

- 1. Usability of Interactive Systems
- 2. Universal Usability
- 3. Guidelines, Principles, and Theories

#### Part 2. Design Processes

- 4. Design
- 5. Evaluation and the User Experience
- 6. Design Case Studies

#### Part 3. Interaction Styles

- 7. Direct Manipulation and Immersive Environments
- 8. Fluid Navigation
- 9. Expressive Human and Command Languages
- 10. Devices
- 11. Communication and Collaboration

#### Part 4. Design Issues

- 12. Advancing the User Experience
- 13. The Timely User Experience
- 14. Documentation and User Support (a.k.a. Help)
- 15. Information Search
- 16. Data Visualization

#### **General Education Goals/Objectives:**

Relationship to Campus Theme: The course focuses on knowledge and application of technology.

#### **Classroom Policies**:

- Students are required to complete all class activities.
- Participation is required.
- The instructor reserves the right to remove anyone causing disruptions or showing disrespect to others. The instructor will interpret and declare what is considered disruptive or disrespectful behavior.

#### **Student Email Policy:**

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity: Students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred.

**Disabilities and Special Needs:** If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact your instructor and the Student Success Center as early as possible during the beginning of the semester.