

CS2303 GUI Development Syllabus Outline

Department: Department of Mathematics, Physics and Engineering

Course Prefix/Number: C S 2303

- I. Catalog Description: The principles and techniques used to develop GUI based applications are covered. These include such topics as window creation, dialog boxes, menus, and the use of controls. An introduction to basic graphic techniques will be presented.

- II. Prerequisites: C S 221.

- III. Expanded Course Description: The course addresses those techniques used to develop window applications and their interfaces. Both C++ and Java are used to create these applications. To support C++ applications MFC is used. Topics of interest include: menus, toolbars, status bars, and dialog boxes. The use of controls within a window is also covered. The event driven programming paradigm is introduced. Low level graphics techniques are used to enable the student to create and manage simple images.

- IV. Intended Student Learning Outcomes: At the conclusion of the course the student will be able to:
 - Students will demonstrate the ability to create windows by developing applications that use windows to display a typical application that can be resized and iconized.

 - Students will demonstrate the ability to create menus by developing applications that incorporate menus that support cascading, short-cut keys and access keys.

 - Students will demonstrate the ability to create a toolbar by developing applications that use toolbars to parallel the behavior of menus.

 - Students will demonstrate the ability to create dialog boxes by developing applications that use both modal and non-modal dialog boxes and that transfer data between the application and the dialog box.

- Students will demonstrate the ability to use advanced controls by developing applications that use advanced controls such as trees and tables.
- Students will demonstrate the ability to use basic graphic techniques by developing applications that use windows to display various geometric figures and text.
- Students will demonstrate the ability to use 2D graphics by developing applications that performs translation, rotation and other graphical manipulation of images.
- Students will demonstrate the ability to use sounds by developing applications that play sound and music.
- Students will demonstrate the ability to uses images by developing applications that load and display images.

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus:

- a) Course Requirements
- b) Required Text(s)
- c) Bibliography

VI. Academic Honesty: Cheating, plagiarism (submitting another person's materials or ideas as one's own), or doing work for another person who will receive academic credit are all-impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure of give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

VII. Students With Disabilities Policy: It is the policy of Tarleton State University to comply with the Americans with Disabilities Act (ADA) and other federal, state, and local laws relative to the provision of disability services. Students with disabilities attending Tarleton State University may contact the Office of Disability Services at (254) 968-9478 to request appropriate accommodation. Furthermore, formal accommodation requests cannot be made until the student has been officially admitted to Tarleton State University.