# Visual Programming-Java

Instructor: Email: Office Location: Office Hours Course Page:

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# **Course Description**

Window-based, object-oriented, and event-driven application design and implementation employing modern programming language and tools. Building visual components (windows, menus, frames, message-boxes, buttons, lists, input/out boxes), managing containers and layout, event-handlers, exceptions. Employing GUI class libraries. Implementation programs in various fields of computer science. Laboratory component is mandatory.

**Prerequisites**: 0901131 (Computer Science II), 0901210 (Object-Oriented Programming), 0901211 (Java Programming).

#### Text Book *Java: How to Program*

H. Deitel & P. Deitel; Edition: 10th; Publisher: Prentice Hall, 2015.

**Software:** We will be employing Java SE 8 & Java EE 7 and other frameworks/tools.

**Contact:** I will try to respond to e-mail messages, as my time permits. If you send an e-mail, please specify "Visual Programming Class" as the subject. I do not guarantee answering all the e-mail messages that I receive.

**Course Format:** The course is comprised of two components, a lecture and a laboratory, involving class presentations, quizzes, design and programming assignments, two exams and a final exam. Exams will be in-class and consist of problems similar to those appearing in the homework assignments or presented in class. The student should spend at least 2 weekly hours in the lab; the lab supervisor will provide assistance. Homework exercises and programming tasks will be assigned and must be submitted during the specified lab sessions.

## Class Attendance: Attendance is mandatory.

**Homework:** Programming exercises will be assigned weekly. Those assigned will be graded and calculated towards your course grade.

**Grading Scale and Distribution:** Your grade in this course will be based on an evaluation of homework, class participation, quizzes, and three exams. The final grade for the course will be determined using the following distribution:

First Exam	15%	(8-03-2017)
Second Exam	15%	(26-04-2017)
Term activity	20%	
Final Exam	50%	

Visual Programming

Code of Conduct: The following policies are the rules by which we will operate in this term:

- **Make-Up Exams**: As a rule, no make-up exams will be offered. In order to be afforded an exception, I demand solid and verifiable evidence demonstrating extreme circumstances.
- **Cheating**: If a student cheats or attempts to cheat during any exam, the minimum penalty administered would be receiving a "Zero" in both the exam attempted and in the class-participation component. This policy will be implemented against ALL parties participating in the cheating event.
- Cell Phones: Cell phones must either be turned off or set to "vibrate" mode.
- **Class Chatting**: It is a disruptive activity; therefore, it is prohibited.
- Class Tardiness & Early Exit: Attending late or leaving early is most disruptive to class activity.

## **Topics to be covered**

- Overview of OO topics
- Introduction Introducing Java GUI API and supporting class hierarchy.
- Designing, implementing, and programming the Java graphical user-interface components and their associated constructs: labels, buttons, lists, textfields, combo boxes, checkboxes, radio buttons, panels, progress bars, menus, frames, windows, applets, and panes.
- Programming and handling component events.
- Programming and handling mouse & keyboard events.
- Programming component layout managers.
- Managing fonts.
- Managing colors.
- Programming graphics and geometric drawing.
- Java multimedia programming.
- Constructing complete GUI-based applications in various IT fields.
- Other topics.

 $\underline{\text{Note}}\colon$  I reserve the right to modify this course plan to adapt to extenuating factors.