Programming in Graphical Environment

Introduction

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Class Types

- Lectures — 15 classes
- Laboratories:
    - Tutorial Laboratories — 3 classes
    - Graded Laboratories — 9 classes
    - Retake Laboratory

Full rules, overview and schedule on course website:
http://pages.mini.pw.edu.pl/~aszklarp/pige.php

Assessment Rules I

- All labs scored for 12 points
- Exception: lab 5 scored for 4 points.
- 12 p. labs split into parts:
    - Part A - labs 1-4
    - Part B - labs 6-9
- Each lab contains "in class" part — 90 minutes to solve
- Some contain "at home" part to be submitted during the following class (finishing "in class" part is a requirement)
- All solutions must be submitted to the teacher, otherwise 0 points
- Anti-plagiarism software used to compare them, 0 points if significant similarities are found
- Repeating offenders will fail the subject
- Retake result replaces lowest score from labs 1-4, 6-9.

Assessment Rules II

- One absence can be made up during retake
- Excused absences might be handles as follows (at teachers discretion):
    - For tasks with "at home" part, allow student to submit full solution via e-mail on due date
    - For extended absences, establish individual assessment rules.
- 24 point from each of Part A and B and 50 points in total to pass the subject
- Final Grade:

0-50 pts.:	2.0 (D - Fail)
51-60 pts.:	3.0 (C - Satisfactory)
61-70 pts.:	3.5 (C+ - Fairly Good)
71-80 pts.:	4.0 (B - Good)
81-90 pts.:	4.5 (B+ - Above Good)
91-100 pts.:	5.0 (A - Very Good)

Course Overview I

- GUI design guidelines
- Windows API
  - Windows, Messages, Data Structures, Error Handling
  - Input (Mouse, Keyboard, etc.)
  - 2D Graphics with GDI
  - Resources, controls, dialog boxes
- Window Forms
  - Application structure and settings
  - Forms, Properties, Events
  - Built-in and Custom Controls
  - Resources and Localization

Course Overview II

- WPF
  - XAML Languagle, Application, Windows, Pages
  - Dependency Properties, Routed Events, Logical and Visual Trees
  - Layout, Panels, Content and Items Controls, Commands
  - Styles, Templates, Data Binding
  - Resources, MVVM pattern
- HTML&CSS
- Unicode, Internationalization (Globalization, Localization), Accessibility
- UI Testing

Separate reading recommendations will be provided for each genera topic

GUI Design — Recommended Reading I

🌐 Windows Dev Center
Design basics for Desktop applications
https://docs.microsoft.com/en-us/windows/win32/uxguide/designprinciples

🌐 Windows Dev Center
Design and code Windows apps
https://docs.microsoft.com/en-us/windows/uwp/design/

🌐 Goole Material Design
Material Design Guidelines
https://material.io/design/

GUI Design — Recommended Reading II

📕 Wilbert O. Galitz
The Essential Guide to User Interface Design
An Introduction to GUI Design Principles and Techniques
Wiley, 2007

📕 Everett N. McKay
Developing User Interfaces for Microsoft Windows
Microsoft Press, 1999

📕 Larry E. Wood
User Interface Design
Bridging the Gap from User Requirements to Design
CRC Press, 1997

End of Introduction

Thank you for listening! ☺