ISCG6421: Graphical User Interface Programming

Course number:	ISCG6421	**Level:**	6	**Credits:**	15

Main programme: BCS
Pre-requisites: For BCS: (ISCG5421 or ISCG5239) and (ISCG5423 or ISCG5236)
For GDCMP: (ISCG5421 or ISCG5239) and (ISCG5423 or ISCG5236)
Co-requisites: BCS ISCG5430 or ISCG5237
Restrictions: ISCG6222
Compulsory/elective: Elective

Learning time: 150 hours

(Lecturer) Contact hours	Non-contact hours	Total hours
32.5	117.5	150

Level Descriptor: The student is able to carry out processes that

- require a command of wide-ranging highly specialised technical or scholastic skills employing
- specialised knowledge with depth in more than one area and applied
- within broad parameters for defined activities with complete accountability for determining and achieving personal and/or group outcomes.

Course aim: To provide the student with the concepts of and practice in the use of event driven programming in the context of a selected language and a standard interface using windows, icons, menus and pointers.

Learning outcomes:

	Learning outcomes
1.	Demonstrate competency in the use of a GUI programming language and environment.
2.	Demonstrate the use of a GUI language for the creation of an effective database front end.
3.	Demonstrate the testing, debugging and documentation of GUI programs.
4.	Analyse the way in which a GUI model affects the development effort, the programme structure and the interaction with the user.

Topics/Content outline:
Topics include: developing and integrating forms, controls and events; integrating with databases, SQL querying, report generation.

Expanded Outcomes

Outcome 1:
Demonstrate competency in the use of a GUI programming language and environment.

- Demonstrate the ability to use the syntax and structures of a GUI language.
- Apply both traditional and GUI techniques for controlling program flow within GUI programs.

Outcome 2:
Demonstrate the use of a GUI language for the creation of an effective database front end.

- Explain the connectivity model used to link the GUI to database information.
- Develop forms which demonstrate appropriate visual representation of database information.
- Develop forms that demonstrate appropriate user navigation and database navigation.
- Develop forms that make use of SQL querying and report generation in the GUI environment.