Module: Mobile Programming and Syntax 361

Module name:	Mobile Programming and Syntax 361
Code:	MSS361
NQF level:	6
Type:	Speciality – Diploma in Information Technology (Mobile Development)
Contact time:	84 hours
Structured time	14 hours
Self-directed	42 hours
Notional hours:	140 hours
Credits:	14
Prerequisites:	PRG262

Purpose

The purpose of the course is to introduce interactive and dynamic mobile design using several programming languages. The course covers language-specific details that need to be implemented in order to achieve the desired results. It will also look at how layouts should be represented for it to be best experienced by the end user.

Outcomes

Upon successful completion of this module, the student will be able to:

- Demonstrate detailed knowledge of the main areas of dynamic mobile programming, including an understanding of and the ability to apply the principles of programming to the area of mobile development.
- Evaluate, select and apply appropriate mobile development techniques to create and deploy dynamic mobile applications by analysing and modelling user requirements.
- Identify, analyse and solve problems by creating dynamic mobile applications that accommodate specified requirements and constraints, based on analysis or modelling or requirements specification.
- Communicate effectively with a variety of audiences through a range of modes and media, in particular to present a clear, coherent and independent exposition of mobile applications to IT and/or non-IT personnel via demonstrations or presentations.

Assessment

Assessment is performed using a variety of instruments:

- Continuous evaluation of theoretical work through written assignments, formative assessments, and a summative test.
- Continuous evaluation of classwork, whereby the student must create and deploy a solution according to some set requirements.
- Final assessment through a written examination.

Teaching and Learning

Learning materials

- Presentation notes and hand-outs

Prescribed books (EBSCO)

- 🕮 ***Daniel Furtado, Marcus Pennington. Python Programming Blueprints : Build Nine Projects by Leveraging Powerful Frameworks Such As Flask, Nameko, and Django. Packt Publishing; 2018***
- 🕮 ***PRUDHOMME, G. Java Programming Applications. Oakville, ON: Arcler Press, 2020. ISBN 9781774074053***

Learning activities

The pedagogical approach is a combination of practical and theoretical concepts being presented through formal lectures with additional learning being gained through exercises and discussions. It is practice-oriented, with two mandatory assignments which must be completed during the course.

Notional learning hours

Contact	Distance	Other	Type of learning activities	% Learning
y	y	n	Lectures (face-to-face, limited interaction or technologically mediated)	40%
y	y	n	Tutorials: individual groups	20%
n	y	n	Syndicate groups	10%
n	y	n	Independent self-study of standard texts and references (study guides, books, journal articles)	10%
n	y	n	Independent self-study of specially prepared materials (case studies, multi-media, etc.	20%