Proposed Academic Year	2021/ 2022	**Last Reviewed Academic Year**	2020/2021
Course Code	INTE305	**Course Title**	Rapid Applications Development
Credit hours	3	**Level of study**	Undergraduate-Year Four
College / Centre	COBA	**Department**	MIFS
Co-requisites	None	**Pre-requisites**	INTE130

1.   COURSE OUTLINE

[This course extends computer programming II, where students will further develop their programing skills to develop commercial applications in a robust manner. They will further develop their object-orients programming skills to develop a large-scale application. They will also learn how to debug and handle execution profiler.

2.   AIMS

[This course aims to extend Computer Programming III, where students respond to industry problems and develop applications and provide technical documentations.

3.   LEARNING OUTCOMES, TEACHING, LEARNING ,ASSESSMENT METHODS , and Graduate Attributes Mapping

Learning Outcomes *(Definitive)* Upon successful completion of this course, students will be able to:	Teaching and Learning methods *(Indicative)*	Assessment *(Indicative)*	Graduate Attributes Mapping
1. conduct a thorough user needs analysis, software requirement and produce written documents	Lectures and labs	In-class tests, quizzes, tasks analysis	Knowledge of a discipline. Commitment to national development and Omani ethical values. Innovative spirit.
2. Apply advance techniques in pattern designs, advance expression and queries	Lectures and labs	In-class tests, quizzes, tasks analysis	Knowledge of a discipline. Innovative spirit. Global insight
3. Demonstrate thorough analysis on advanced client & server-side programming skills.	Lectures and labs	In-class tests, quizzes, projects & prototypes	Knowledge of a discipline. Innovative spirit. Global insight
4. Analyze and apply the effect of the programming style and the modularity, the construction and the robustness of software development	Lectures and labs	In-class tests, quizzes, projects & prototypes	Knowledge of a discipline. Innovative spirit. Global insight

4.   ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
First exam	30%
Course work / project	30%
Final exam	30%
Participation	10%
TOTAL	**100%**

5.   ACHIEVING A PASS

Students will achieve **3** credit hours for this course by passing **ALL** of the course assessments *[alternatively, list the compulsory pass assessments*]* and achieving a **minimum overall score of 2.0 CGPA**

NB *Ensure that ALL learning outcomes are taken into account

6.   COURSE CONTENT (Indicative)

LECTURE TOPIC	TIME (HOURS)
The effect of programming style (reliability, portability, durability and readability)	10
Problem construction and object oriented modelling implementation	9
Improving performance through effective algorithm and data structure development	10
Rapid applications development (IDE, libraries and code reuse)	9
Effective programming through the management of the environment, source code, building, profiling and debugging tools	10

TOTAL HOURS	**48**
Plus **RECOMMENDED INDEPENDENT STUDY HOURS**	
TOTAL COURSE HOURS	**48**

7. RECOMMENDED READING

Core text/s:

Lockhart, J. (2015). *Modern PHP: New features and good practices.* " O'Reilly Media, Inc.".
ISBN-13: 978-1491905012

MG Martin, William Bahl, et al. (2019) PHP: Advanced Detailed Approach to Master PHP Programming
Language for Web Development
ISBN-13: 978-1075932557

Andrew Curioso et al. (2010) Expert PHP and MySQL 1st Edition. Wrox
ISBN-13: 978-0470563120

Library + online resources:
ASU library, ASU online resources (ProQuest and e-library) and
Sultan Qaboos University Library