MASTER OF SOFTWARE ENGINEERING (STRUCTURE B)

Programme Info

The MSE (Master of Software Engineering) program aims at providing Master's Degree holders with advanced knowledge and skills in dealing with an organization's computing requirements and needs especially from the Software Engineering perspective. This program intends to cater for both Computer Science and Information Technology graduates.

Entry Requirement

1. Bachelors in the relevant domain with Upper Second Class Honours or CGPA 2.75 and above ; or
2. Bachelors in the relevant domain with Lower Second Class Honours or CGPA 2.50 - 2.74, and 1 year experience and at least 1 publication, or 2 years professional experience in the domain; or
3. Bachelors in the relevant domain with CGPA below 2.50, and 5 years' experience in the domain

Subjects

No	Status	Code	Subjects	Credit hr.	%
1	**4 Core Courses (12 cr. hrs.)**	**UNIM523**	**Research Methodology In Computing**	3	**30**
2		**MSKM513**	**Advanced Software Engineering**		
3		**MSKM523**	**Advanced Software Testing**		
4		**MSKM533**	**Seminar in Software Engineering Practices and Global Issues**		
5	**3 Elective Courses (9 cr. hrs.)**	**MSKM613**	**Requirements Engineering**		**22.5**
6		**MITM623**	**Programming Languages**		
7		**MITM633**	**Interactive Systems Design**		
8		**MSKM623**	**Software Quality**		
9		**MSKM633**	**Software Configuration Management**		
10		**MSKM643**	**Intelligent Software Agents**		
11		**MITM743**	**Advanced Project Management**		
12	**Research Project (Core)**	**MPRM719**	**Project**	**19**	**47.5**
			TOTAL CREDIT HR. FOR GRADUATION	**40**	**100%**

Key Research Areas

The specialized areas of research under the programme are listed as follows:

1. **Research Methodology in Computing**
2. **Interactive Systems Design**
3. **Advanced Software Engineering**
4. **Software Quality**
5. **Advanced Software Testing**
6. **Software Configuration Management**
7. **Programming Language**
8. **Intelligent Software Agents**
9. **Requirements Engineering**
10. **Advanced Project Management**
11. **Seminar in Software Engineering Practices**

Duration of Study & Fee Structure

Please click for more details

Coordinator

Dr. Nor'ashikin Bte Ali

shikin@uniten.edu.my

+60389287307

COURSE SYNOPSIS

MSKM513 Advanced Software Engineering

Synopsis

This course provides a broad perspective of software engineering, focusing on advanced concepts and methods, processes and techniques fundamental to the creation of reliable, software systems. It aims to develop a broad understanding of the discipline of software engineering. It also seeks to complement a familiarity with analysis and design with knowledge of the full range of techniques and processes associated with the development of complex software intensive systems.

MSKM523 Advanced Software Testing

Synopsis

This course we will examine different verification and validation approaches that are capable of providing us with evidence of software quality. Using a combination of these techniques can provide a high-degree of confidence in the quality of the software we construct. This course also provides an exposure to the students about the effectiveness testing of software, be exposed of techniques and standards, have an awareness of what testing tools can achieve, where to find more information about testing, and establish the basic steps of the testing process.

MSKM533 Seminar in Software Engineering Practices and Global Issues

Synopsis

This course aims to fulfil the capstone requirement in software engineering and global issues. In the theoretical part, students will learn about the principles and methods of software engineering practices, including current and emerging practices and support tools. In the practical part, students will become familiar with the development of software products from an industry perspective, including generation of appropriate documents, under tight schedules and limited resources together with the global issues.

MSKM613 Requirements Engineering

Synopsis

This course is designed to provide a comprehensive knowledge base and practical skills for students in implementing or improving software requirements development and management techniques and practices in projects or organizations. This course is taught through lecture and interactive discussion. Throughout this course, learned skills are practiced using team exercise, case studies and projects. Students are exposed to comprehensive knowledge base and practical skills in implementing and improving software requirements development and management techniques and practices in projects or organizations.

MSKM623 Software Quality

Synopsis

This module serves as an introductory course to the concepts of software process and quality. The course also provides the students with the tools and techniques necessary for critical evaluations of producing quality software. Students are exposed to comprehensive knowledge base and practical skills in implementing and improving software quality techniques and practices in projects or organizations.

MSKM633 Software Configuration Management

Synopsis

This course is designed to provide a comprehensive knowledge base and practical skills for students in planning and executing the activities and documents in a software configuration management process. This course is taught through lecture and interactive discussion. Throughout this course, learned skills are practiced using team exercise, case studies and projects.

MSKM653 Intelligent Software Agent

Synopsis

This subject will introduce the students to the notion of an agent, and will lead them to an understanding of what an agent is, how they can be constructed, and how agents can be made to corporate effectively with one-another to solve problems. Students are exposed to comprehensive discussion on agent- based environment including the concept of agents, design, methodology and applicability of an agent- based system in solving real world problems.

MPRM719 Research Project

Synopsis

Students select a research project or suggested by faculty members and work throughout the period under the supervision of faculty members. Students have to present in the form of a thesis containing the original work, all or a significant part of which is worthy of publication in a learned journal, proceedings or the equivalent forms. Students are expected to have adequate knowledge of the discipline within their specific field of study.