MONASH University

BACHELOR OF SOFTWARE ENGINEERING (2770): 2011 - 2012
Coursework stream

Student Name: _____ ID: _____

This course map shows a recommended progression only. Some units can be taken in semesters other than those indicated below. Students completing units in a different sequence to that indicated below should be aware of unit prerequisites and semesters of offering prior to varying their course progression. Please see a Course Advisor for any queries.

UNITS IN RED ARE REPLACEMENTS FOR CORE UNITS NO LONGER OFFERED. SEE http://www.infotech.monash.edu.au/current/course-information/ FOR FURTHER TRANSITION INFORMATION.

Year 1

First Semester	**FIT1002** Computer programming OR **FIT1040** Programming fundamentals	**Approved Elective**	**MAT1830** Discrete mathematics for computer science	**FIT1029** Algorithmic problem solving
Second Semester	**FIT1004** Data management	**FIT1010** Introduction to software engineering [FIT1002 or FIT1040]	**FIT1031** Computers and networks	**FIT1008** Computer science [(FIT1002 or FIT1040) & FIT1029]

Year 2

First Semester	**FIT2001** Systems development [Co-req: FIT1004 or FIT2010]	**FIT2024** Software engineering practice [FIT1008 or FIT2034]	**FIT2069** Computer architecture [(FIT1031 or FIT1001) & FIT1008]	**FIT2004** Algorithms and data structures [FIT1008 & 6 pts Level 1 Maths]
Second Semester	**FIT2002 *** Project management [24pts level 1]	**FIT2043** Technical documentation for software engineers [FIT1002 or FIT1010]	**FIT2070** Operating systems [(FIT1031 or FIT1001) & FIT1008]	**MAT2003 *** Continuous mathematics for computer science

Year 3

First Semester	**FIT3042** Systems tools and programming languages [FIT1008]	**FIT3077** Software engineering: architecture and design [FIT2001 & (FIT2024 or FIT2004)]	**FIT3141** Data communications and computer networks [FIT2069 & FIT2070] OR **ECE2041** Telecommunications	**FIT2003** IT professional practice or **ENG1061** Engineering profession***
Second Semester	**Approved Elective**	**FIT3013** Formal specification for software engineering [FIT2004 & (MAT1830 or MTH1112)]	**FIT3142** Distributed computing [FIT3141 or ECE2041]	**Approved Elective**

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Year 4 (Option 1)

First Semester	**FIT4002** Software engineering studio project (Full year project) [Pre-req: FIT3077 & FIT2002 Co-req: FIT4004] (12 points)	**FIT4004** System verification and validation, quality and standards [FIT2004 & FIT2024 & FIT3077 & MAT1830]	**Approved Elective**	**Approved Elective**
Second Semester		**Approved Elective**	**Approved Elective**	**Approved Elective**

Year 4 (Option 2 – HONOURS RESEARCH OPTION) **

First Semester	**FIT4002** Software engineering studio project (Full year project) [Pre-req: FIT3077 & FIT2002 Co-req: FIT4004] (12 points)	**FIT4004** System verification and validation, quality and standards [FIT2004 & FIT2024 & FIT3077 & MAT1830]	**FIT4005** Research methods	**FIT4441** Honours thesis - part 1 (Full year project)
Second Semester		**Approved Elective**	**FIT4442/4448** Honours thesis - part 2/final (Full year project)	

Notes on both Coursework Stream and IBL Placement Course maps

192 points must be completed to qualify for the degree of Bachelor of Software Engineering, with the following conditions:

- normally 48 points, and a maximum of 60 points, of first year level units will be counted;
- a maximum of 120 points can be completed at first and second year level
- at least 36 points must be completed at third year level

All units are 6 points unless indicated otherwise.

* Units can be completed in a later semester if students wish to complete a minor sequence with their Approved Electives in first and second year.

** Option 2 is only available to students undertaking the honours version of the degree. Entry to the Honours stream is by application, based upon a weighted average of previous years' results.

*** Students have the option of completing FIT2003 IT professional practice (recommended) OR ENG1061 Engineering profession.

Approved course variations to the BSE course structure:

- Students requiring other mathematics for an Engineering sequence may replace MAT1830/2003 with approval.
- Students intending to complete a minor sequence in Mathematics within the Faculty of Science should substitute another mathematics unit for MAT1830, with approval.

Any other course variations must be approved by the Course Director and will be confirmed in writing.

Students are required to fulfil a 12-week industry placement requirement. Students are advised to complete this requirement during their summer break between year 3 and year 4 of their course. (This is an Engineers Australia (EA) requirement for accreditation of Professional Engineering courses).

Software and programming

Systems

Foundation

Software Engineering

Approved electives. **Please see http://www.infotech.monash.edu.au/current/course-information/ for approved elective lists. A limited number of units not on the approved elective list may be taken with approval**.

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