Bachelor of Engineering (Honours) / Master of Engineering

Software Specialisation

Note: This checklist only compares the 66 units required to complete the **Software Specialisation**. Please refer to your program and course requirements for the remaining units in the BE(Hons)/ME program.

Complete 66 units comprising:		
• **40 units** for all Software Engineering Compulsory Courses	**Pre-2026**	**2026**
COMP2701 Generative Artificial Intelligence		
COMP3400 Functional & Logic Programming (pre-2026 students may take COMP2701 instead or take both)		
COMP3506 Algorithms & Data Structures		
CSSE2002 Programming in the Large		
CSSE2010 Introduction to Computer Systems		
CSSE2310 Computer Systems Principles and Programming		
CSSE3012 The Software Process (last offering S1/26, then must replace with CSSE3030)		
CSSE3030 Software Testing and Automation		
CSSE3200 Software Engineering Studio: Design, Implement & Test		
CSSE4801 Software Engineering Studio: Build (Incompatible: DECO3801)		
CSSE6400 Software Architecture		
DECO2500 Human-Computer Interaction		
DECO3800 Design Computing Studies 3 - Proposal		
DECO3801 Design Computing Studio 3 – Build (Incompatible: CSSE4801)		
ENGG1300 Introduction to Electrical Systems		
ENGG7291 Engineering Placement A (8 units)		
INFS1200 Introduction to Information Systems		
MATH1061 Discrete Mathematics **or** MATH1081 Advanced Discrete Mathematics		
STAT2203 Probability Models & Data Analysis		
ENGG4901 Professional Practice and the Business Environment A **or** ENGG4902 Professional Practice and the Business Environment B		
• BE(Hons)/ME Masters Elective Courses	**Pre-2026** 4 to 8 units	**2026** 4 to 10 units
COMS6200 Computer Networks II		
DECO6500 Advanced Human-Computer Interaction		
CSSE7610 Concurrency: Theory and Practice		
ENGG7302 Advanced Computational Techniques in Engineering		
INFS7410 Information Retrieval and Web Search		

REIT6811 Research Methods		
• BE(Hons)/ME Elective Courses	**Pre-2026** 12 to 22 units	**2026** 10 to 22 units
COMP3301 Operating Systems Architecture		
COMP3320 Vulnerability Assessment and Penetration Testing		
COMP3400 Functional & Logic Programming		
COMP3702 Artificial Intelligence		
COMP3710 Pattern Recognition and Analysis		
COMP3820 Digital Health Software Project		
COMP4403 Compilers and Interpreters		
COMP4500 Advanced Algorithms & Data Structures		
COMP4702 Machine Learning		
COMP4703 Natural Language Processing		
COMS3200 Computer Networks I		
COMS4507 Advanced Topics in Security		
COMS6200 Computer Networks II		
COSC3000 Visualization, Computer Graphics & Data Analysis		
COSC3500 High-Performance Computing		
CSSE3010 Embedded Systems Design & Interfacing		
CSSE3012 The Software Process		
CSSE3100 Reasoning About Programs		
CSSE3610 Concurrency: Theory and Practice		
CSSE4010 Digital System Design		
CSSE4630 Principles of Program Analysis		
CYBR3000 Information Security		
DECO3500 Social & Mobile Computing		
DECO3800 Design Computing Studio 3 - Proposal		
DECO6500 Advanced Human-Computer Interaction		
INFS2200 Relational Database Systems		
INFS3200 Advanced Database Systems		
INFS3202 Web Information Systems		
INFS3208 Cloud Computing		
INFS4203 Data Mining		
INFS4205 Advanced Techniques for High Dimensional Data		
• **0 to 6** BE(Hons)/ME Breadth Elective Courses	**Pre-2026**	**2026**
COMP2140 Web/Mobile Programming		

COMP3880 International Software Development 1		
COMP3881 International Software Development 2		
CSSE4011 Advanced Embedded Systems		
DECO1400 Introduction to Web Design		
DECO2801 Human-Centred AI		
ELEC2400 Electronic Devices and Circuits		
ENGG2800 Team Project I		
ENGG3800 Team Project II		
ENGG4800 Project Management		
ENGG6020 Systems Safety Engineering		
MATH2001 Calculus & Linear Algebra II, **or**		
MATH2901 Advanced Calculus & Linear Algebra II		

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