

DOUBLE PROGRAM

B.E.(Automotive)/B.Ma.&Comp.Sc with Mathematics Focus. Academic Plan 2009

Level I - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	ELEC ENG	1009	Electrical and Electronic Engineering IA	3.0
Sem 1	MECH ENG	1101	Intro to Automotive Engineering	3.0
Sem 1	MATHS	1011	Mathematics IA * <i>or</i>	3.0
Sem 1	MATHS	1013	Mathematics IMA*	
Sem 1	C&ENVENG	1010	Engineering Mechanics - Statics	3.0
				12.0
Sem 2	MECH ENG	1006	Design Graphics and Communication	3.0
Sem 2	MECH ENG	1007	Engineering Mechanics - Dynamics	3.0
Sem 2	CHEM ENG	1009	Materials I	3.0
Sem 2	MATHS	1012	Mathematics IB * <i>or</i>	
Sem 2	MATHS	1011	Mathematics 1A *	3.0
				12.0

* Students who have undertaken SACE Stage 2 Specialist Maths will be required to enrol in Mathematics IA followed by Mathematics IB.

* Students who have not taken SACE Stage 2 Specialist Maths will be required to enrol in Mathematics IMA followed by Mathematics IA and Mathematics IB. It is strongly recommended that students should enrol in Mathematics IB in the following summer semester to complete the requirements at Level 1. The satisfactory completion of Mathematics IMA is in addition to the normal requirements of the B.E. Plan but a requirement for students who do not have SACE Stage 2 Specialist Maths. Enrolment in summer will enable students to complete the program in the minimum amount of time.

Level II - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	2100	Design Practice	3.0
Sem 1	MATHS	2201	Engineering Maths I	3.0
Sem 1	MECH ENG	2020	Materials & Manufacturing	3.0
Sem 1	MECH ENG	2021	Thermo-fluids I	3.0
Sem 1	MECH ENG	2501	Mech Eng Level 2 Prac	
				12.0
Sem 2	MECH ENG	2019	Dynamics and Control I	3.0
Sem 2	MECH ENG	2101	Mechatronics IM includes Workshop Practice	3.0
Sem 2	MECH ENG	2002	Stress Analysis and Design	3.0
Sem 2	MATHS	2202	Engineering Maths II	3.0
Sem 2	MECH ENG	2502	Mech Eng Level 2 Prac	
				12.0

Level III – 24 units (see notes below in regards to undertaking Level 2 Maths coursework at this level)

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	3033	Automotive Materials and Structures	3.0
Sem 1	MECH ENG	3105	Sustainability & the Environment	3.0
Sem 1	MECH ENG	3102	Heat Transfer & Thermodynamics	3.0
Sem 1	MECH ENG	3103	Manufacturing Eng	3.0
Sem 1	MECH ENG	3501	Mech Eng Level 3 Prac	
				12.0
Sem 2	ELEC ENG	3025	Power Electronics & Drive Systems M	3.0
Sem 2	MECH ENG	3027	Engineering Systems Design and Communication	3.0
Sem 2	MECH ENG	3028	Dynamics and Control II	3.0
Sem 2	MECH ENG	3101	Applied Aerodynamics	3.0
Sem 2	MECH ENG	3502	Mech Eng Level 3 Prac	
				12.0

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Level IV – 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
			Level III Maths & Computer Science courses 24 units or 18 units at Level 3 and 6 units at Level 2 (this is a focus not a major, a major may be undertaken. See the Program Rules for a major sequence in Applied, or Pure Mathematics or Statistics (see link to Faculty Office Program Advisers and Advisory notes below)	24.0

Level V - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	4103	Advanced Computer Aided Engineering	3.0
Sem 1	MECH ENG	4130A	Automotive Design Project Level IV Part 1 <i>or</i>	
Sem 1	MECH ENG	4131A	Automotive Honours Project Level IV Part 1	3.0
Sem 1	MECH ENG	4109	Automotive Combustion, Power Train & NVH (not offered in 2009)	
Sem 1	MECH ENG	4118	Finite Element Analysis of Structures	3.0
Sem 1	MECH ENG	4111	CFD for Engineering Applications	3.0
Sem 1	MECH ENG	4501	Mech Eng Level 4 Prac	
				12.0
Sem 2	MECH ENG	4130B	Automotive Design Project Level IV Part 2 <i>or</i>	
Sem 2	MECH ENG	4131B	Automotive Honours Project Level IV4 Part 2	3.0
Sem 2	MECH ENG	4110	Automotive Vehicle Dynamics & Safety	3.0
Sem 2	MECH ENG	4117	Finance for Engineers	3.0
Sem 2	MECH ENG	4116	Engineering Management & Quality Systems	3.0
Sem 2	MECH ENG	4502	Mech Eng Level 4 Prac	
				12.0

Students accepted into the Honours stream will take Automotive Honours Project Level IV and other students will take Automotive Design Project Level IV

Check pre-requisites, co-requisites or restrictions placed on courses (refer to On-line Course Planner)

Students are not required to present a major for the Bachelor of Maths and Computer Science program but there are majors in Applied Mathematics, Pure Mathematics, Statistics or Mathematical Sciences available for this program. Students should consult the Calendar in regards to these majors. If students wish to undertake coursework at Level 3 in the area of Pure Mathematics or Statistics, they are advised to check the assumed knowledge/pre-requisites for Level 3 work ahead of undertaking this level. The 24 new units of Mathematics at Level IV may contain 6 units of Level 2 Mathematical Science units.

Students with questions relating to the requirements listed above are encouraged to seek program advice from the Engineering, Computer and Mathematical Sciences Faculty Office (ecms_office@adelaide.edu.au)