

## DOUBLE PROGRAM

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

#### Year 1 - 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	1102	Intro to Aerospace Engineering	3.0
Sem 1	MATHS	1011	Mathematics IA * <i>or</i>	
Sem 1	MATHS	1013	Mathematics IMA *	3.0
Sem 1	C&ENVENG	1010	Engineering Mechanics - Statics	3.0
				<b>12.0</b>
Sem 2	MECH ENG	1006	Design Graphics & 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 IA *	3.0
				<b>12.0</b>

\* 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.

#### Year 2 - 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 and Manufacturing	3.0
Sem 1	MECH ENG	2021	Thermo-Fluids I	3.0
Sem 1	MECH ENG	2501	Mech Eng Level 2 Prac	
				<b>12.0</b>
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	MATHS	2202	Engineering Maths II	3.0
Sem 2	MECH ENG	2002	Stress Analysis and Design	3.0
Sem 2	MECH ENG	2502	Mech Eng Level 2 Prac	
				<b>12.0</b>

#### Year 3 - 24 units (Before commencing Level 3 see notes at the bottom of the document)

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	3026	Aerospace Materials and Structures	3.0
Sem 1	MECH ENG	3105	Sustainability & the Environment	3.0
Sem 1	MECH ENG	3100	Aeronautical Engineering	3.0
Sem 1	MECH ENG	3102	Heat Transfer & Thermodynamics	3.0
Sem 1	MECH ENG	3501	Mech Eng Level 3 Prac	
				<b>12.0</b>
Sem 2	MECH ENG	3027	Engineering Systems Design & Communication	3.0
Sem 2	MECH ENG	3028	Dynamics and Control II	3.0
Sem 2	MECH ENG	3104	Space Vehicle Design	3.0
Sem 2	MECH ENG	3101	Applied Aerodynamics	3.0
Sem 2	MECH ENG	3502	Mech Eng Level 3 Prac	
				<b>12.0</b>

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### Year 4 - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
			Level III Maths and Computer Science courses or 18 Level III units and 6 Level II units.	24.0

### Year 5 - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	4129A	Aerospace Honours Project Level IV Part 1 <i>or</i> *	
Sem 1	MECH ENG	4128A	Aerospace Design Project Level IV Part 1 *	3.0
Sem 1	MECH ENG	4106	Aerospace Propulsion	3.0
Sem 1	MECH ENG	4108	Aircraft Design	3.0
Sem 1	MECH ENG	4118	Finite Element Analysis of Structures OR	
Sem 1	MECH ENG	4111	CFD for Eng Applications	3.0
Sem 1	MECH ENG	4501	Mech Eng Level 4 Prac	<b>12.0</b>
Sem 2	MECH ENG	4100	Advanced Topics in Aerospace Engineering	3.0
Sem 2	MECH ENG	4129B	Aerospace Honours Project Level IV Part 2 <i>or</i> *	
Sem 2	MECH ENG	4128B	Aerospace Design Project Level IV Part 2 *	3.0
Sem 2	MECH ENG	4116	Engineering Management & Quality Systems	3.0
Sem 2	MECH ENG	4120	Fracture Mechanics OR	
Sem 2	MECH ENG	4104	Advanced Topics in Fluid Mechanics <i>OR</i>	
Sem 2	MECH ENG	4114	Corrosion: Principles & Prevention <i>OR</i>	
Sem 2	MECH ENG	4122	Mechanical Signature Analysis <i>OR</i>	
Sem 2	MECH ENG	4107	Airconditioning <i>OR</i>	
Sem 2	MECH ENG	4121	Materials Selection & Failure Analysis – Not offered in 2009	3.0
Sem 2	MECH ENG	4502	Mech Eng Level 4 Prac	<b>12.0</b>

\* Students accepted into the Honours stream will take Aerospace Honours Project Level IV and other students will take Aerospace Design Project Level IV.

**Note pre-requisites, co-requisites or restrictions may be placed on courses (refer to On-line Course Planner)**

**Continuing students** should check the rules for the single program at <http://www.adelaide.edu.au/calendar/ug/eng/>. The double program of B.E.(Aerospace) and B. Mathematical and Computer Sciences requires students to pass all coursework (96 units) relating to the single program of B.E.(Aerospace) and a further 24 new units of Mathematics and Computer Science coursework. This program does not focus on Computer Science but Mathematical Science and Statistics coursework only.

The 24 new units maybe at Level 3 or 6 of these 24 units maybe at Level 2 and 18 at Level 3. The 6 unit presentation at Level 2 will enable students to undertake courses in Statistics or Pure Mathematics to present coursework that is required as assumed/pre-requisite knowledge for coursework at Level 3. Although a major is not required for the B.Maths and Computer Science program there are majors available in this program for Applied and Pure Mathematics, Statistics and Mathematical Sciences. Students should consult Course Advisers in the School of Mathematics or the Calendar for the rules which relate to these majors, or see the notes which follow, providing Faculty Program Advice.

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)