

DOUBLE PROGRAM

B.E.(Aerospace)/B.Sc. Academic Plan 2008

Year 1 - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	C&ENVENG	1010	Engineering Mechanics - Statics	3.0
Sem 1	CHEM ENG	1008	Engineering Computing	3.0
Sem 1	MATHS	1011	Mathematics IA * <i>or</i>	
Sem 1	MATHS	1013	Mathematics IMA *	3.0
Sem 1	PHYSICS	1100	Physics IA <i>or</i>	
Sem 1	CHEM	1100	Chemistry IA	3.0
				12.0
Sem 2	CHEM	1200	Chemistry IB <i>or</i>	3.0
Sem 2	PHYSICS	1200	Physics IB	
Sem 2	MECH ENG	1006	Design Graphics and Communication M	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
				12.0

* 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 IMA in summer semester 2009 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.

To qualify for the B Science award, students must complete a major pursuant to Bachelor of Science program rules

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	2018	Design Practice	3.0
Sem 1	xxxx	xxxx	Engineering Maths 1	3.0
Sem 1	MECH ENG	2021	Thermo-Fluids I	3.0
			Level 2 Science course	3.0
				12.0
Sem 2	MECH ENG	1007	Eng Mechanics - Dynamics	3.0
Sem 2	xxxx	xxxx	Engineering Maths II	3.0
Sem 2	MECH ENG	2002	Stress Analysis and Design	3.0
Sem 2			Level 2 Science Course	3.0
				12.0

Year 3 - 24 units

<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	xxxx	Heat Transfer and Thermodynamics	3.0
Sem 1	MECH ENG	xxxx	Materials and Manufacturing	3.0
Sem 1	MECH ENG	xxxx	Aeronautical Engineering	3.0
				12.0
Sem 2	MECH ENG	3027	Engineering Systems Design and Comm	3.0
Sem 2	MECH ENG	2019	Dynamics and Control I	3.0
Sem 2	MECH ENG	xxxx	Mechatronics IM (includes W/Shop practice)	3.0
Sem 2	MECH ENG	xxxx	Space Vehicle Design	3.0
				12.0

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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>
Sem 1	MECH ENG	xxxx	Sustainability and the Environment	3.0
Sem 1	MECH ENG	xxxx	Aircraft Design	3.0
Sem 1	MECH ENG	xxxx	Aerospace Propulsion	3.0
			Level 2 Science Course	3.0
				12.0
Sem 2	xxxx	xxxx	Engineering Management and Quality Systems	3.0
Sem 2	MECH ENG	3028	Dynamics and Control II	3.0
Sem 2	xxxx	xxxx	Engineering Aerodynamics	3.0
			Level 2 Science Course	3.0
				12.0

Year 5 – 24 Units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1			Level 3 Science Course	12.0
				12.0
Sem 2			Level 3 Science Course	12.0
				12.0

Year 6 – 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	xxxx	Aerospace Honours Project Level IV Part 1 <i>or</i> *	3.0
Sem 1	MECH ENG	xxxx	Aerospace Design Project Level IV Part 1 *	
Sem 1	MECH ENG	xxxx	CFD for Engineering Applications	
Sem 1	MECH ENG	xxxx	FEA of Structures	
Sem 1			Engineering Electives	
				12.0
Sem 2	MECH ENG	xxxx	Advanced Topics in Aerospace Engineering	3.0
Sem 1	MECH ENG	xxxx	Aerospace Honours Project Level IV Part 2 <i>or</i> *	
Sem 1	MECH ENG	xxxx	Aerospace Design Project Level IV Part 2 *	
Sem 2			Engineering Electives	
				12.0

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

ELECTIVES *

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	xxxx	Advanced Automatic Control (aerospace)	3.0
Sem 1	MECH ENG	xxxx	Advanced Vibrations (aerospace)	3.0
Sem 1	PHYSICS	xxxx	Astrophysics III	3.0
Sem 1	MECH ENG	xxxx	Combustion Technology and Emissions Control	3.0
Sem 1	APP MTH	xxxx	Computational Fluid Dynamics (Engineering) **	3.0
Sem 1	MECH ENG	xxxx	Engineering Acoustics	3.0
Sem 1	MECH ENG	xxxx	High-Speed Aerodynamics	3.0
Sem 1	MECH ENG	xxxx	Mechanical Signature Analysis	3.0
Sem 1	MECH ENG	xxxx	Robotics M	3.0
Sem 1	MECH ENG	xxxx	Topics in Welded Structures	3.0
Sem 2	MECH ENG	xxxx	Advanced Topics in Fluid Mechanics	3.0
Sem 2	APP MTH	xxxx	Aerodynamics *(aerospace)	3.0
Sem 2	MECH ENG	xxxx	Aerospace Propulsion II (aerospace)	3.0
Sem 2	MECH ENG	xxxx	Air Conditioning	3.0
Sem 2	MECH ENG	xxxx	Finance for Engineers	3.0
Sem 2	MECH ENG	xxxx	Fracture Mechanics	3.0
Sem 2	MECH ENG	xxxx	Materials Selection & Failure Analysis	3.0
Sem 2	APP MTH	xxxx	Transform Methods and Signal Processing **	3.0
Sem 2	MECH ENG	xxxx	Environmental and Architectural Acoustics	3.0
Sem 2	MECH ENG	xxxx	Computational Techniques for Engineering Applications	3.0

* *Not all electives are offered each year. Information as to which courses are to be offered in a given year will be available at the time of enrolment. With the approval of the Head of the School of Mechanical Engineering, courses offered by other schools within the University may be included in the selection of electives.*

** *Not offered by the School of Mechanical Engineering*

Note pre-requisites, co-requisites or restrictions may be placed on these courses (refer to 2008 Calendar or 2008 On-line Course Planner)