

DOUBLE PROGRAM

B.E.(Automotive)/B.Ma.&Comp.Sc with Comp.Sc Focus. Academic Plan 2008

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 1A	3.0
Sem 1	COMP SCI	1008	Computer Science 1A	3.0
Sem 1	MATHS	1011	Mathematics 1A <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	COMP SCI	1009	Computer Science 1B	3.0
Sem 2	MECH ENG	1007	Engineering Mechanics - Dynamics	3.0
Sem 2	CHEM ENG	1009	Materials 1	3.0
Sem 2	MATHS	1012	Mathematics 1B <i>or</i>	3.0
Sem 2	MATHS	1011	Mathematics 1A	
				12.0

* Students who have undertaken SACE Stage 2 Specialist Maths will be required to enrol in Mathematics 1A followed by Mathematics 1B.

* Students who have not taken SACE Stage 2 Specialist Maths will be required to enrol in Mathematics IMA followed by Mathematics 1A and Mathematics 1B. It is strongly recommended that students should enrol in Mathematics 1B 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.

Level II - 25 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	4.0
Sem 1	APP MATHS	2000	Differential Equations & Fourier Series	2.0
Sem 1	MECH ENG	2020	Materials & Manufacturing	3.0
Sem 1	MECH ENG	2021	Thermo-fluids I	3.0
				12.0
Sem 2	MECH ENG	2019	Dynamics and Control I	3.0
Sem 2	MECH ENG	1006	Design Graphics and Communication M	3.0
Sem 2	APP MATHS	2009	Numerical Analysis and Probability and Statistics	2.0
Sem 2	MECH ENG	2002	Stress Analysis and Design	3.0
Sem 2	APP MATHS	2002	Vector Analysis & Complex Analysis	2.0
				13.0

Level III - 26 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	MECH ENG	3034	Advanced Computer Aided Engineering	2.0
Sem 1	MECH ENG	3033	Automotive Materials and Structures	3.0
Sem 1 or 2	ENG	3002	Engineering Communication ESL/EAL*	(2.0)
Sem 1	MECH ENG	3031	Thermo-fluids II	3.0
Sem 1	COMP SCI	2000	Computer Systems	3.0
Sem 1	COMP SCI	2004	Data Structures and Algorithms	3.0
				14.0
Sem 2	MECH ENG	3036	Automotive Power Train and Vehicle Dynamics	2.0
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	3029	Manufacturing Engineering	2.0
Sem 2	MECH ENG	2011	Mechatronics IM	2.0
				12.0

* Available only to students whose native language is not English; may be presented in lieu of one elective at Level IV.

B.E.(Automotive)/B.Ma.&Comp.Sc with Comp.Sc Focus. Academic Plan 2008

Level IV – 26 units

Term	Subject Area	Catalogue Number	Course Description	Units
Sem 1	MECH ENG	3020	Heat Transfer	2.0
Sem 1	MECH ENG	3017	Sustainability & the Environment	2.0
				4.0
Sem 2	MECH ENG	3035	Automotive Combustion Technology	2.0
				2.0
			Level III Maths & Computer Science courses (this is a focus not a major sequence but with a slight overload a major may be undertaken. See the Program Rules for a major sequence in Computer Science or Faculty Office Course advisers	20.0

Level V - 24 units

Term	Subject Area	Catalogue Number	Course Description	Units
				2.0
Sem 1	MECH ENG	4011	Advanced Automatic Control	2.0
Sem 1	MECH ENG	4048A	Automotive Design Project Level IV Part 1 <i>or</i>	
Sem 1	MECH ENG	4047A	Automotive Honours Project Level IV Part 1	4.0
Sem 1	ELEC ENG	4048	Automotive Electrical & Electronic Systems	2.0
Sem 1	MECH ENG	4043	Automotive NVH	2.0
Sem 1			Elective	2.0
				12.0
Sem 2	MECH ENG	4045	Advanced Manufacturing and Quality Systems	2.0
Sem 2	MECH ENG	4048B	Automotive Design Project Level IV Part 2 <i>or</i>	
Sem 2	MECH ENG	4047B	Automotive Honours Project Level IV4 Part 2	4.0
Sem 2	MECH ENG	4044	Automotive Safety	2.0
Sem 2	MECH ENG	4039	Finance for Engineers	2.0
Sem 2			Elective	2.0
				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

ELECTIVES *

Term	Subject Area	Catalogue Number	Course Description	Units
Sem 1	MECH ENG	4020	Advanced Vibrations	2.0
Sem 1	APP MTH	4007	Computational Fluid Dynamics (Engineering)**	2.0
Sem 1	MECH ENG	4002	Combustion Technology & Emission Control	2.0
Sem 1	MECH ENG	4004	Engineering Acoustics	2.0
Sem 1	MECH ENG	4027	Robotics M	2.0
Sem 1	MECH ENG	4025	Topics in Welded Structures– Not offered in 2008	2.0
Sem 1	MECH ENG	4059	Finite Element Analysis of Structures	2.0
Sem 1	MECH ENG	4046	CFD for Engineering Applications	2.0
Sem 2	MECH ENG	4013	Airconditioning	2.0
Sem 2	MECH ENG	4026	Environmental & Architectural Acoustics	2.0
Sem 2	MECH ENG	4042	Fire Engineering	2.0
Sem 2	MECH ENG	4003	Fracture Mechanics	2.0
Sem 2	MECH ENG	4033	Mechanical Signature Analysis	2.0
Sem 2	APP MTH	4043	Transform Methods & Signal Processing**	2.0
Sem 2	MECH ENG	4055	Stresses in Plates & Shells	2.0
Sem 2	MECH ENG	4057	Biomechanical Engineering	2.0

- 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. Of the two electives chosen, at least 1 must be offered by the School of Mechanical Engineering.

** Not offered by the School of Mechanical Engineering

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