

YEAR 11 CAREERS RESEARCH ASSIGNMENT (Vishnu SIVAKUMAR)

ACTIVITY 1 - CAREER RESEARCH

	Robotics Engineer	Aerospace Engineer	Pharmacist
Three tasks associated with this career	• Investigate mechanical failures or unexpected maintenance problems. • Analyze and evaluate robotic systems or prototypes. • Build, configure and test robots.	• Designing • Directing/ leading your own team. • Formulate mathematical models or other methods according to customer engineering requirements.	• Fill prescriptions • Administer flu shots and other vaccinations. • Validate prescriptions from doctors.
Job prospects for this career for the next 5 years	17.1% job growth	7% job growth	6% job growth
Average weekly earnings	\$2,100	\$1,860	\$2,312

Three important skills associated with this career, including a description of these skills in your own words and their percentage	Leadership skills – Leading various teams to find a solution. Communication skills – being able to communicate to clients to suit their requirements. Design engineering – to be able to come up with creative solutions for problems.	Critical-thinking-skills – This field requires you to ask the right question and find a acceptable answer. Math skills – used for design, analysis and troubleshooting. Problem solving skills – used to upgrade designs and troubleshoot problems when meeting new demands.	Analytical Skills – Pharmacists must provide safe medication efficiently. Communication Skills – Pharmacists must frequently offer advice to patients. Computer skills – pharmacists must have previous computer skills in order to use various medical databases.
Education and training requirements	• Complete a bachelor's degree in the field of engineering. • Professional engineer's License	• Completion of a bachelor's degree	• Post graduate professional degree in pharmacy. • Pass the PCAT • Complete 1-2 year residency
Three Victorian courses to become qualified	• Mechatronics engineering • Bachelor of any engineering with mechatronics/robotics major.	• Bachelor of engineering(honors)/Bachelor of Science • Bachelor of engineering – aerospace • Bachelor of engineering	• Undergraduate pharmacy • Undergraduate pharmaceutical sciences • Bachelor of pharmaceutical sciences advanced
Two interstate courses to	• Bachelor of engineering(mechatronics) (honors)	• Bachelor of Advance Science (Honors)/Engineering (Honors)	• Bachelor of pharmacy • Bachelor of pharmacy (honors)

become qualified		• Bachelor of engineering honors – aeronautical	
Three companies with job openings and the position	• Hace Industries Pty Ltd – Mechatronics Engineer • Mexx Engineering – Design Engineer, Mechatronics • Mti Group - Junior Electronics/mechatronics Engineer	• Hawker Pacific – Avionics Apprentice • Australia wide personnel – Senior aeronautical engineer • Air Force – Aeronautical engineer	• Ramsey Pharmacy – pharmacist • S.A. Health – pharmacist • Albury Wodonga Health – Clinical Pharmacist

ACTIVITY 2 - EXPLORE VCE PREREQUISITE AND COURSE EXPLORER AND COURSESEARCH ON THE VTAC WEBSITE

	Mechatronics Engineer	Aerospace Engineer	Career Option 3 (replace with title)
Name 2 Universities where you can do a course in this area of interest.	• Monash University • RMIT	• UNSW • RMIT	• Monash University • Melbourne University
What is the ATAR and prerequisites for this course at each university?	86% (Confirmed entrance) • Study score of 25 in methods/specialists • Study score of 25 in English • Study score of 25 in any science	81.70% • Study score of 25 in methods/specialists • Study score of 30 in English • Study score of 25 in physics	84% • English (any) • Chemistry • Mathematical methods/specialists - Mathematics
Name 2 Majors you might be interested in studying for this course.	• Mechatronics • Robotics	• Business management • Science	• Engineering

ACTIVITY 3 – INITIAL PLANNING OF A YEAR 12 COURSE

Year 11 (2019)	
Specialists	Although the subject is challenging it is enjoyable as it makes me think more about the question before attempting to find a solution.
English	Coping well, while I need to improve on my writing skills.
Computing	Fun and enjoyable as it is very relatable to real life and forces me to come up with creative algorithms for various tasks.
Chemistry	One of my most favourite subjects: easy to understand.
Physics	Exciting and loaded with content and is again all about real life applications make it interesting.
Methods 3&4	Tough yet extremely interesting and also helps with one of my other subjects.
Year 12 (2020)	
Chemistry	It is one of the prerequisites for courses involving a science background and also since I'm currently finding it easy.
Physics	A key factor in engineering hence making it one of my top priorities.
Specialists	Another key factor in fields such as aerospace engineering
English	One of the prerequisites for all of the courses that I'm interested in.
University Extension – Mathematics	This will help with my school progress in mathematics. While it may be challenging, it can also help with my course.

Presentation of Career Research Assignment

Outcome	Incomplete	Complete	To be completed
Completed Career Research using Job Outlook and Employment advertisement websites			Completed table
Researched VTAC – VCE Prerequisite and Course Planner, & CourseSearch			Keep a copy as evidence from the 2 sections and print out a copy
Planning a Year 12 Course			Completed table