

3.1.6 Innovation & Design Programme

The Innovation & Design Programme (iDP) aims to train entrepreneurial graduates who understand innovation and are able to apply their discipline knowledge and skills to solve problems or design new products, services and experiences. It employs a unique learning environment that emphasizes a hands-on, experimental, experiential and collaborative approach to learning. In the iDP, students from different disciplines (Engineering as well as non-Engineering) learn various tools and processes for ideation and design by working together on hands-on projects that have real-world impact. Those who are keen on entrepreneurship are encouraged to further develop their projects for commercialization or participate in the NUS Overseas Colleges programme. Students can work on projects from a wide range of themes such as healthcare, urban mobility, sustainable cities, smart living, and intelligent systems. The iDP is designed for students who aspire to be technopreneurs or are keen on hands-on project work.

Students who complete the iDP will be awarded a **Second Major in Innovation & Design** along with their primary major in an Engineering or non-Engineering discipline. The iDP is also one of the 3 differentiated pathways for Engineering students.

More information about the iDP may be found on the following website:

www.eng.nus.edu.sg/edic/dcp.html

Module requirements

Students in the iDP are required to complete the modules listed in the following table:

Semester	Module	Modular credits (MCs)	Remarks
1	ES1531 Critical Thinking & Writing (or its equivalent in each discipline)	4	Double-counted towards Faculty/programme requirement
2	Group A module: choose ONE from the following: • EG1310 Exploratory Satellite Design • EG2201A Introduction to Design Thinking	4	Unrestricted elective
3	Group B module: choose ONE from the following: • EG2301 Case Studies in Engineering • EG2311 Introduction to Space Systems • EG2312 Radar Theory & Techniques • EG2606B Independent Work (for special projects only)	4	Unrestricted elective
4 to 5	EG3301R DCP Project	12	Unrestricted elective <i>or</i> double-counted towards design capstone / design project (programme requirement)
7 to 8	EG4301 DCP Dissertation <i>or</i> EG4301A Ideas to Startup	12	Unrestricted elective <i>or</i> double-counted towards research capstone / final year project (programme requirement)

Anytime between 5 and 8	<p>Group C modules: choose THREE from the following Innovation & Enterprise electives (4 MCs each):</p> <ul style="list-style-type: none"> • MT4001 Innovation & Entrepreneurial Strategy <i>or</i> BSN3703 Entrepreneurial Strategy • MT4002 Technology Management Strategy <i>or</i> BSN3701/TR3008 Technological Innovation <i>or</i> IS3251 Principles of Technology Entrepreneurship • BSN3702/TR3002 New Venture Creation • MT5911 Venture Funding • MT5005 IP Law for Engineers & Scientists <i>or</i> BSN3712 Innovation & Intellectual Property • MT5920 Enterprise Development • TR2201 Entrepreneurial Marketing • IE2140 Engineering Economy <i>or</i> IE5003 Cost Analysis & Engineering Economy • IE2150 Human Factors Engineering <i>or</i> IE5301 Human Factors in Engineering & Design • MNO3811 Social Entrepreneurship 	12	Unrestricted elective <i>or</i> programme requirement
	Total	48 MCs	Up to 16 MCs may be double-counted towards Faculty and/or programme requirement

To satisfy their compulsory internship requirement, Engineering students in the *iDP* may complete EG3612 Vacation Internship Programme (6 MCs) during the Special Term between Semesters 4 and 5 in lieu of EG3611A Industrial Attachment (10 MCs) or EG3611 Industrial Attachment (12 MCs).

Application

The *iDP* welcomes all students who are keen about hands-on design and project work and passionate about their pursuits in creating innovative solutions to solve challenging problems. Students will receive email invitations to apply to join the *iDP* after their first semester in NUS. They may be admitted into the *iDP* at the start of their second or third semesters.