

School of Chemical and Biomedical Engineering

Information on Specialisation

The School of Chemical and Biomedical Engineering (SCBE) is offering 2 specialisations in the Chemical and Biomolecular Engineering (CBE) programme which students can choose from. Each specialisation provides specific knowledge and training of skillsets required in emerging industry areas in Singapore and will be reflected on the academic transcript to illustrate its unique qualification that can be useful for career development in the specific field.

The specialisations are:

- 1) Advanced Pharmaceutical Manufacturing
- 2) Intellectual Property for Chemical and Biomolecular Engineering

Specialisation Criteria

The following criteria must be met to obtain either of the two specialisations:

- Students are required to complete the compulsory courses and 3 of the elective courses from a particular specialisation area.
- Each specialisation area comprises 2 Core/Unrestricted Elective (UE) courses and 3 Major Prescribed Elective (MPE) courses.
- If a student has read all the compulsory courses and elective courses from any of the specialisation area, regardless of whether the courses were read as Core, MPE or UE, the student will be deemed to have attained specialisation in that particular area. *Students are not allowed to exercise S/U for the Unrestricted Elective contributing to a specialisation.*
- Students who do not wish to obtain a specialisation may still choose courses of their interests from different specialisation areas.

Specialisation Areas

The respective courses available for each of the two specialisation areas are listed below.

Specialisation in Advanced Pharmaceutical Manufacturing		
Compulsory Courses	Offering Semester	Course Type
CH3141 Unit Operations A	2	CBE Core
CH3101 Process Control and Dynamics	1	Core
Elective Courses		
CH4106 Formulation of Active Pharmaceutical Ingredient Dosage Form	1	MPE
CH4303 Bioseparations	2	MPE
CH4306 Bioanalytical Techniques	1	MPE

Specialisation in Intellectual Property		
Compulsory Courses	Offering Semester	Course Type
CH4801 Final Year Design Project	1 & 2	Core
Elective Courses		
CH4341 Fundamentals of Intellectual Property in Chemical Engineering	1	MPE
MS4661 Application of Patents & Registered Design in Engineering Related Industries	2	MPE
MS4662 Appreciating IP in Research & Development	2	MPE

IMPORTANT

1. Are students allowed to overload MPE?

No. Your MPE quota is as per allocated in your graduation requirement (9AUs). No overloading of MPE is allowed. If you have previously utilised your MPEs AUs on non-specialisation MPEs, you will not be able to earn the specialisation.

2. Are students allowed to appeal for MPE if the class slots have been filled up?

No. Do note some of the MPEs are popular and/or have limited vacancies. Registration for the MPEs will be done during your personalised course registration period or during add/drop. If you do not manage to register for the MPEs of your chosen specialisation, you will not be able to earn the specialisation. Appeal for slot of MPEs will not be accepted.

3. I have completed some courses (Core/MPE) under a specialisation area during a study exchange programme (GEM Explorer/Fee-Paying/SUSEP). Can these courses be counted towards the specialisation?

Yes. Courses that have been approved by the School to be matched to NTU-SCBE course can be considered as a course fulfilling the specialisation although it is graded as Pass/Fail.