

*CBE Curriculum and Course Syllabus (AY2122 Intake)*

The following is the recommended curriculum for CBE students:

<b>Year 1 Semester 1</b>	<b>Course Type</b>	<b>Course Code</b>	<b>Course Title</b>	<b>AU</b>
	Core	<a href="#">CB1102</a>	Introduction to Chemical and Biomedical Engineering	1
	Core	<a href="#">CB1131</a>	Introduction to Biomolecular Engineering	3
	Core	<a href="#">CH1801</a>	Chemical & Biomolecular Engineering Laboratory 1A	1
	Core	<a href="#">MH1810</a>	Math 1	3
	Core	<a href="#">PH1011</a> or <a href="#">PH1012</a>	Physics or Physics A <sup>^</sup>	3 or 4 <sup>^</sup>
	Common-Core	CC0001	Inquiry and Communication in the Interdisciplinary World	2
	Common-Core	CC0002	Navigating the Digital World	2
	BDE		Broadening & Deepening Electives 1	3
			<b>Total AUs</b>	<b>18 or 19<sup>^</sup></b>

*<sup>^</sup>For students without 'A' Level Physics*

<b>Year 1 Semester 2</b>	<b>Course Type</b>	<b>Course Code</b>	<b>Course Title</b>	<b>AU</b>
	Core	CB1103	Organic Chemistry for Engineers	3
	Core	CB1117	Engineering Mathematics	4
	Core	CH1104	Materials & Energy Balance	3
	Core	CH1802	Chemical & Biomolecular Engineering Laboratory 2	1
	Core	EG1001	Engineers in Society	2
	Common-Core	CC0003	Ethics & Civics in a Multi-Cultural World	2
	Common-Core	CC0005	Healthy Living & Well-being	3
	BDE		Broadening & Deepening Electives 2	3
			<b>Total AUs</b>	<b>21</b>

Year 2 Semester 1	Course Type	Course Code	Course Title	AU
	Core	<a href="#">CH2103</a>	Fluid Systems	3
	Core	<a href="#">CH2107</a>	Introduction to Computational Thinking	3
	Core	CH2108	Thermodynamics	3
	Core	<a href="#">CH2010</a>	Engineering Statistics	3
	Core	<a href="#">CH2801</a>	Chemical & Biomolecular Engineering Laboratory 2A	2
	Common-Core	CC0006	Sustainability: Society, Economy & Environment	3
	Common-Core	ML0004	Career and Entrepreneurial Development for the Future World	2
				<b>Total AUs</b>

Year 2 Semester 2	Course Type	Course Code	Course Title	AU
	Core	CH2112	Chemical Reaction Engineering	3
	Core	CH2114	Heat & Mass Transfer in Chemical and Biological Systems	3
	Core	CH2123	Chemical Thermodynamics	3
	Core	CH2151	Unit Operations A	3
	Core	CH2802	Chemical & Biomolecular Engineering Laboratory 2B	2
	Foundational-Core	CB0494	Introduction to Data Science and Artificial Intelligence	3
	Common-Core	CC0007	Science & Technology for Humanity	3
			<b>Total AUs</b>	<b>20</b>

Year 3 Semester 1	Course Type	Course Code	Course Title	AU
	Core	CH3104	Biochemical Engineering	3
	Core	CH3109	Decision Tools for Business & Engineering	3
	Core	<a href="#">CH3111</a>	Process Control and Dynamics	3
	Core	CH3121	Chemical, Biological & Plant Safety	2
	Core	CH3140	Unit Operations B	3
	Core	<a href="#">CH3802</a>	Chemical & Biomolecular Engineering Laboratory 5	3
	Foundational-Core	<a href="#">HW0288</a>	Engineering Communication	2
			<b>Total AUs</b>	<b>19</b>

Year 3 Semester 2	Course Type	Course Code	Course Title	AU
	Foundational-Core	CH3880	Professional Internship <sup>#</sup>	10
			<b>Total AUs</b>	<b>10</b>

#Professional Internship (PI) is offered in year 3 sem 2 or year 4 sem 1

Year 4 Semester 1	Course Type	Course Code	Course Title	AU
	Core	<a href="#">CH4801</a>	Final Year Design Project	4
	Major PE		CBE Elective 1	3
	BDE		Broadening & Deepening Electives 3	3
	BDE		Broadening & Deepening Electives 4	3
	BDE		Broadening & Deepening Electives 5	3
	<b>Total AUs</b>			<b>16</b>

Year 4 Semester 2	Course Type	Course Code	Course Title	AU
	Core	<a href="#">CH4801</a>	Final Year Design Project	4
	Major PE		CBE Elective 3	3
	BDE		Broadening & Deepening Electives 6	3
	BDE		Broadening & Deepening Electives 7	3
<b>Total AUs</b>			<b>13</b>	