

Bachelor of Engineering in Energy Science and Engineering
Recommended Study Plan (for 2023 cohort with normative 4-year degree)

YEAR 1

<u>Semester A</u>		<u>CUs</u>	<u>Semester B</u>		<u>CUs</u>
MA1200 /	Calculus and Basic Linear Algebra I /	3	MA1201 /	Calculus and Basic Linear Algebra II /	3
MA1300	Enhanced Calculus and Linear Algebra I		MA1301	Enhanced Calculus and Linear Algebra II	
CHEM1200	Discovery in Biology	3	PHY1201	General Physics I	3
CHEM1300	Principles of General Chemistry	3	SEE1002	Introduction to Computing for Energy and Environment	3
SEE1003	Introduction to Sustainable Energy and Environmental Engineering	3	GE2410	English for Engineering	3
GE1401	University English	3	GE Courses (Distributional Requirements) x 2		3
GE Course (Distributional Requirements)		3			3
Total: 18			Total: 18		

YEAR 2

<u>Semester A</u>		<u>CUs</u>	<u>Semester B</u>		<u>CUs</u>
SEE2000	Professional Development I	0	CA1167	Engineering Communication	3
SEE2001	Electromagnetic Principles for Energy Engineers	3	MA2181	Mathematical Methods for Engineering	3
SEE2002	Chemical Sciences for Energy and Environmental Engineers	4	SEE2101	Engineering Thermofluids I	3
SEE2003	Introduction to Energy and Environmental Data Analysis	3	SEE2201	Fundamentals of Environmental Engineering	3
GE1501	Chinese Civilisation - History and Philosophy	3	GE Course (Distributional Requirements)		3
Total: 13			Total: 15		

YEAR 3

<u>Semester A</u>		<u>CUs</u>	<u>Semester B</u>		<u>CUs</u>
SEE3002	Energy and Environmental Economics	3	SEE3001	Energy and Environmental Policy	3
SEE3101	Engineering Thermofluids II	4	SEE3003	Climate Change and Adaptation Strategies	3
SEE3102	Power Plant Engineering	3	SEE3104	Sustainable and Renewable Energy	3
SEE3103	Energy Efficiency for Buildings	3	SEE4001	Engineers in Society	1
SYE4024	Project Management	3	SEE4217	Waste and Wastewater Treatment Engineering	3
Total: 16			Total: 13		

YEAR 4

<u>Semester A</u>		<u>CUs</u>	<u>Semester B</u>		<u>CUs</u>
SEE4003	Energy and Environmental Engineering Laboratory	3	SEE4004	Environmental Impact Assessment for Sustainable Development	4
SEE4112	Sustainable Engineering Systems: Modelling and Analysis	3	SEE4997	Final Year Project	3
SEE4997	Final Year Project	3	Major Electives x 2		3
Major Electives x 2		3			3
		3			
Total: 15			Total: 13		

IMPORTANT NOTES re. SEE2000 Professional Development I and SEE4000 Professional Development II:

By the time SEE students graduate, they must have successfully completed *SEE2000 Professional Development I* and *SEE4000 Professional Development II*, namely **8-hour Career Training Workshops arranged by SEE** plus **160-hour Professional Development experience recognized by SEE**. For details, please refer to the School website at <https://www.cityu.edu.hk/see> >> Programmes >> Undergraduate Programmes.

ESE-2023-4YR-BSS

CITY UNIVERSITY OF HONG KONG School of Energy and Environment

List of 3 School-specified courses:

- (1) CA1167 Engineering Communication
- (2) SEE1003 Introduction to Sustainable Energy and Environmental Engineering
- (3) SEE3002 Energy and Environmental Economics

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YEAR 1

Semester A		CU _s	Semester B		CU _s
MA1200 / MA1300	Calculus and Basic Linear Algebra I / Enhanced Calculus and Linear Algebra I	3	MA1201 / MA1301	Calculus and Basic Linear Algebra II / Enhanced Calculus and Linear Algebra II	3
CHEM1200	Discovery in Biology	3	PHY1201	General Physics I	3
CHEM1300	Principles of General Chemistry	3	SEE1002	Introduction to Computing for Energy and Environment	3
SEE1003	Introduction to Sustainable Energy and Environmental Engineering	3	GE2410	English for Engineering	3
GE1401	University English	3	GE Courses (Distributional Requirements) x 2		3
GE Course (Distributional Requirements)		3			3
		Total: 18			Total: 18

YEAR 2

Semester A		CU _s	Semester B		CU _s
SEE2000	Professional Development I	0	CA1167	Engineering Communication	3
SEE2001	Electromagnetic Principles for Energy Engineers	3	MA2181	Mathematical Methods for Engineering	3
SEE2002	Chemical Sciences for Energy and Environmental Engineers	4	SEE2101	Engineering Thermofluids I	3
SEE2003	Introduction to Energy and Environmental Data Analysis	3	SEE2201	Fundamentals of Environmental Engineering	3
GE1501	Chinese Civilisation - History and Philosophy	3	GE Course (Distributional Requirements)		3
		Total: 13			Total: 15

YEAR 3

Semester A		CU _s	Semester B		CU _s
CA3712	Electrical Services	3	SEE3001	Energy and Environmental Policy	3
CA3732	Fire Engineering and Piped Services	3	SEE3003	Climate Change and Adaptation Strategies	3
SEE3002	Energy and Environmental Economics	3	SEE3104	Sustainable and Renewable Energy	3
SEE3101	Engineering Thermofluids II	4	SEE4001	Engineers in Society	1
SEE3102	Power Plant Engineering	3	SEE4217	Waste and Wastewater Treatment Engineering	3
SEE3103	Energy Efficiency for Buildings	3	Major Electives x 2		3
		Total: 19			Total: 19

YEAR 4

Semester A		CU _s	Semester B		CU _s
CA3722	HVAC Engineering	3	CA4718	Power Electronics and Smart Lighting Controls	3
CA4737	Fire Science and Modelling	3	SEE4004	Environmental Impact Assessment for Sustainable Development	4
SEE4003	Energy and Environmental Engineering Laboratory	3	SEE4997	Final Year Project	3
SEE4112	Sustainable Engineering Systems: Modelling and Analysis	3	Major Electives x 2		3
SEE4997	Final Year Project	3			3
SYE4024	Project Management	3			
		Total: 18			Total: 16

IMPORTANT NOTES re. SEE2000 Professional Development I and SEE4000 Professional Development II:

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