

# ESE-2024-4YR

## CITY UNIVERSITY OF HONG KONG School of Energy and Environment

### Bachelor of Engineering in Energy Science and Engineering Recommended Study Plan (for 2024 cohort with normative 4-year degree)

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

#### YEAR 1

Semester A		CUUs	Semester B		CUUs
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	SEE1000	Professional Development: Career Planning Workshop	0
SEE1003	Introduction to Sustainable Energy and Environmental Engineering	3	SEE1002	Introduction to Computing for Energy and Environment	3
GE1401	University English	3	GE2410	English for Engineering	3
GE Course (Distributional Requirements)		3	GE Courses (Distributional Requirements) x 2		3
					3
Total: 18			Total: 18		

#### YEAR 2

Semester A		CUUs	Semester B		CUUs
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		CUUs	Semester B		CUUs
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

Semester A		CUUs	Semester B		CUUs
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 **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-2024-4YR-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

### Bachelor of Engineering in Energy Science and Engineering

Recommended Study Plan (for 2024 cohort with normative 4-year degree taking BSS discipline)

#### YEAR 1

Semester A		CU <sub>s</sub>	Semester B		CU <sub>s</sub>
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	SEE1000	Professional Development: Career Planning Workshop	0
SEE1003	Introduction to Sustainable Energy and Environmental Engineering	3	SEE1002	Introduction to Computing for Energy and Environment	3
GE1401	University English	3	GE2410	English for Engineering	3
GE Course (Distributional Requirements)		3	GE Courses (Distributional Requirements) x 2		3
Total: <b>18</b>			Total: <b>18</b>		

#### YEAR 2

Semester A		CU <sub>s</sub>	Semester B		CU <sub>s</sub>
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: <b>13</b>			Total: <b>15</b>		

#### YEAR 3

Semester A		CU <sub>s</sub>	Semester B		CU <sub>s</sub>
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: <b>19</b>			Total: <b>19</b>		

#### YEAR 4

Semester A		CU <sub>s</sub>	Semester B		CU <sub>s</sub>
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: <b>18</b>			Total: <b>16</b>		

#### 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 **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.