

EVE Curriculum (2023 Cohort - Normative 4-year Degree)
[min. no. of CUs for the award: 122]

(1) Gateway Education (GE) Requirement (30 CUs)

GE Requirement		Credit Units
University Requirements	GE1401 University English	3
	GE2410 English for Engineering	3
	GE1501 Chinese Civilisation – History and Philosophy	3
Distributional Requirements	A minimum of 3 credit units from each of the three distributional areas below: - Area 1: Arts and Humanities - Area 2: Study of Societies, Social and Business Organisations - Area 3: Science and Technology	12
School-specified Requirements	CA1167 Engineering Communication	3
	SEE1003 Introduction to Sustainable Energy and Environmental Engineering	3
	SEE3002 Energy and Environmental Economics	3
Total		30

(2) School Requirement (18 CUs)

Course	Credit Units	Remarks
CHEM1200 Discovery in Biology	3	
CHEM1300 Principles of General Chemistry	3	
MA1200 / MA1300 Calculus and Basic Linear Algebra I / Enhanced Calculus and Linear Algebra I	3	Select either MA1200 or MA1300
MA1201 / MA1301 Calculus and Basic Linear Algebra II / Enhanced Calculus and Linear Algebra II	3	Select either MA1201 or MA1301
PHY1201 General Physics I	3	
SEE1002 Introduction to Computing for Energy and Environment	3	
SEE2000 Professional Development I	0	
SEE4000 Professional Development II	0	

(3) Major Requirement (74 CUs)

A. Basic Core Courses (20 CUs)

Course	Credit Units
CHEM2004 Principles of Analytical Chemistry	4
MA2181 Mathematical Methods for Engineering	3
SEE2002 Chemical Sciences for Energy and Environmental Engineers	4
SEE2003 Introduction to Energy and Environmental Data Analysis	3
SEE2101 Engineering Thermofluids I	3
SEE2201 Fundamentals of Environmental Engineering	3

B. Major Core Courses (42 CUs)

Course	Credit Units
ADSE4024 Project Management	3
SEE2203 Environmental, Safety, and Occupational Health Management	3
SEE2204 Principles of Sustainability	3
SEE3003 Climate Change and Adaptation Strategies	3
SEE3101 Engineering Thermofluids II	4
SEE3203 Air Pollution	3
SEE4001 Engineers in Society	1
SEE4002 Environmental Engineering Laboratory	3
SEE4004 Environmental Impact Assessment for Sustainable Development	4
SEE4204 Environmental Systems Modeling	3
SEE4217 Waste and Wastewater Treatment Engineering	3
SEE4218 Water and Water Resource Engineering	3
SEE4996 Final Year Project	6

C. Electives (12 CUs) - select at least *FOUR* courses from the following list

Course	Credit Units	Remarks
CA3677 Hydraulics and Hydrology	3	Environmental Technology
CHEM4035 Environmental Measurements	4	
SEE4122 Chemical Separations for Energy and Environmental Applications	3	
SEE4203 Advanced Treatment and Management of Solid and Municipal Waste	3	
SEE4216 Combustion and Air Pollution Control	3	
SEE4220 Measurements of Air Pollutants	3	
SDSC3002 Data Mining	3	Sustainability and Environmental Management
SEE3001 Energy and Environmental Policy	3	
SEE3104 Sustainable and Renewable Energy	3	
SEE3204* Urban Sustainability	3	
SEE3205 Urban Sustainability	3	
SEE3206 Environmental Social Governance	3	
SEE4116 Energy and Carbon Auditing	3	
SEE4205 Design of Smart Cities and Sustainable Building	3	
SEE4206 Social Perspectives of Environmental Science and Engineering	3	Environmental Science
CHEM4022 Environmental Toxicology	4	
CHEM4035 Environmental Measurements	4	
CHEM4039 Environmental Conservation and Resources Management	4	
SEE3201 Atmospheric Science – An Introductory Survey	3	
SEE4202 Atmospheric Chemistry	3	
SEE4219 Air Quality Modeling	3	

*SEE3204 is a summer course (not offered until further notice)

D. Optional Electives (21 CUs)

Students may choose to enroll in all of the following course(s) if they are interested in being a member of The Hong Kong Institution of Engineers (HKIE) in the Building Services (BSS) discipline. Given the quota restriction, students are required to obtain approval by the School before studying the courses.

Course	Credit Units
CA3712 Electrical Services	3
CA3722 HVAC Engineering	3
CA3732 Fire Engineering and Piped Services	3
CA4718 Power Electronics and Smart Lighting Controls	3
CA4737 Fire Science and Modelling	3
SEE2001 Electromagnetic Principles for Energy Engineers	3
SEE3103 Energy Efficiency for Buildings	3

EVE Curriculum (2023 Cohort – Advanced Standing I)
[min. no. of CUs for the award: 95]

(1) Gateway Education (GE) Requirement (21 CUs)

GE Requirement		Credit Units
University Requirements	GE1401 University English	3
	GE2410 English for Engineering	3
	GE1501 Chinese Civilisation – History and Philosophy	3
Distributional Requirements	A minimum of 6 credit units from two of the three distributional areas below: - Area 1: Arts and Humanities - Area 2: Study of Societies, Social and Business Organisations - Area 3: Science and Technology	6
School-specified Requirements	CA1167 Engineering Communication	3
	SEE3002 Energy and Environmental Economics	3
Total		21

(2) School Requirement (0 CU)

Course	Credit Units
SEE2000 Professional Development I	0
SEE4000 Professional Development II	0

(3) Major Requirement (74 CUs)

A. Basic Core Courses (20 CUs)

Course	Credit Units
CHEM2004 Principles of Analytical Chemistry	4
MA2181 Mathematical Methods for Engineering	3
SEE2002 Chemical Sciences for Energy and Environmental Engineers	4
SEE2003 Introduction to Energy and Environmental Data Analysis	3
SEE2101 Engineering Thermofluids I	3
SEE2201 Fundamentals of Environmental Engineering	3

B. Major Core Courses (42 CUs)

Course	Credit Units
ADSE4024 Project Management	3
SEE2203 Environmental, Safety, and Occupational Health Management	3
SEE2204 Principles of Sustainability	3
SEE3003 Climate Change and Adaptation Strategies	3
SEE3101 Engineering Thermofluids II	4
SEE3203 Air Pollution	3
SEE4001 Engineers in Society	1
SEE4002 Environmental Engineering Laboratory	3
SEE4004 Environmental Impact Assessment for Sustainable Development	4
SEE4204 Environmental Systems Modelling	3
SEE4217 Waste and Wastewater Treatment Engineering	3
SEE4218 Water and Water Resource Engineering	3
SEE4996 Final Year Project	6

C. Electives (12 CUs) - select at least *FOUR* courses from the following list

Course	Credit Units	Remarks
CA3677 Hydraulics and Hydrology	3	Environmental Technology
CHEM4035 Environmental Measurements	4	
SEE4122 Chemical Separations for Energy and Environmental Applications	3	
SEE4203 Advanced Treatment and Management of Solid and Municipal Waste	3	
SEE4216 Combustion and Air Pollution Control	3	
SEE4220 Measurements of Air Pollutants	3	
SDSC3002 Data Mining	3	Sustainability and Environmental Management
SEE3001 Energy and Environmental Policy	3	
SEE3104 Sustainable and Renewable Energy	3	
SEE3204* Urban Sustainability	3	
SEE3205 Urban Sustainability	3	
SEE3206 Environmental Social Governance	3	
SEE4116 Energy and Carbon Auditing	3	
SEE4205 Design of Smart Cities and Sustainable Building	3	
SEE4206 Social Perspectives of Environmental Science and Engineering	3	Environmental Science
CHEM4022 Environmental Toxicology	4	
CHEM4035 Environmental Measurements	4	
CHEM4039 Environmental Conservation and Resources Management	4	
SEE3201 Atmospheric Science – An Introductory Survey	3	
SEE4202 Atmospheric Chemistry	3	
SEE4219 Air Quality Modeling	3	

**SEE3204 is a summer course (not offered until further notice)*

D. Optional Electives (21 CUs)

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Course		Credit Units
CA3712	Electrical Services	3
CA3722	HVAC Engineering	3
CA3732	Fire Engineering and Piped Services	3
CA4718	Power Electronics and Smart Lighting Controls	3
CA4737	Fire Science and Modelling	3
SEE2001	Electromagnetic Principles for Energy Engineers	3
SEE3103	Energy Efficiency for Buildings	3