THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Suggested Study Plan for Advanced Standing to FYFD Places with Various Entrance Qualifications (2018)

a) Recommended course pattern for those who have 24 units of exemption:

University Core Requirements	Unit Exemption for Students	Units need to be fulfilled
English (9 units)	7 units	2 units
Chinese (6 units)	6 units	0 units
UGE (15 units)	9 units	6 units
CGE (6 units)	No exemption	6 units
IT (1 unit)	1 unit	0 units
PE (2 units)	1 unit	1 unit
39 units	**Total: 24 units**	**Total: 15 units**

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package:	
	ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510*	3
	IERG2080/ESTR2306	2
	PHYS1003/PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
	Term total	**15**
	2nd term	
	Faculty Package:	
	ENGG1100/ESTR1000,	3
	ENGG1410/ESTR1004,	3
	IERG2602	1
	Major Required:	
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
	Term total	**16**

Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2420/ESTR2000	3
	IERG1810	1
	IERG2051/ESTR2302	3
	IERG2060/ESTR2304	3
	General Education: UGEA	3
	Free Elective(s): 1 course	3
	Term total	**16**
	2nd term	
	Major Required:	
	ENGG2310/ESTR2300	3
	ENGG2470/ESTR2012	3
	IERG3820	1
	Major Elective(s): 2 electives	6
	Free Elective(s): 1 course	3
	Term total	**16**
Third Year of Attendance	**1st term**	
	Major Required:	
	IERG3080/ESTR3308	3
	IERG3310/ESTR3310	3
	IERG3800	1
	IERG4998/ESTR4998	3
	Major Elective(s): 2 electives	5
	College General Education: 1 course	3
	Term total	**18**
	2nd term	
	Major Required:	
	IERG3060	3
	IERG3810	1
	IERG4999/ESTR4999	3
	Major Elective(s): 2 electives	6
	Language: ELTU3014	2
	Free Elective(s): 1 course	3
	Term total	**18**
	Breakdown: Faculty Package + Major Required	*58*
	Major Electives	*17*
	University Core Requirement	*15*
	Free Electives	*9*
	(Exempted Units)	*(24)*
		123

Explanatory Notes:

* Non-JUPAS admittees and JUPAS with HKDSE Mathematics Extended Modules I or II are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take MATH1020 in the same term when they take MATH1510.

[a] The compulsory Physics course shall be taken in accordance with students' HKDSE results or placement test results as follows:

i) Students who have attained Level 4 or above in HKDSE Mathematics (Compulsory Part) AND Level 4 or above in Physics or Level 5 or above in Combined Science with Physics Component shall take ENGG1310/ESTR1003 or PHYS1110.

ii) Students with HKDSE results but did not attain the academic levels as stated in (i) shall take PHYS1003.

iii) Students without HKDSE results shall sit for the placement test arranged by the Department of Physics. Students who pass the placement test shall take ENGG1310/ESTR1003 or PHYS1110. Students who fail or are absent from the placement test shall take PHYS1003.

b) Recommended for those who have 21 units of exemption, including an additional 3-unit General Education Foundation course:

University Core Requirements	Unit Exemption for Students	Units need to be fulfilled
English (9 units)	4 units	5 units
Chinese (6 units)	6 units	0 units
UGE (15 units)	9 units	6 units
CGE (6 units)	No exemption	6 units
IT (1 unit)	1 unit	0 units
PE (2 units)	1 unit	1 unit
39 units	Total: 21 units	**Total: 18 units**

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package:	
	ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510*	3
	IERG2080/ESTR2306	2
	PHYS1003 /PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
	Term total	**15**
	2nd term	
	Faculty Package:	
	ENGG1100/ESTR1000,	3
	ENGG1410/ESTR1004,	3
	IERG2602	1
	Major Required:	
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
	Term total	**16**
Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2420/ESTR2000	3
	IERG1810	1
	IERG2051/ESTR2302	3
	IERG2060/ESTR2304	3
	IERG3310/ESTR3310	3
	IERG3800	1
	General Education: UGEA	3
	Term total	**17**
	2nd term	
	Major Required:	
	ENGG2310/ESTR2300	3
	ENGG2470/ESTR2012	3
	IERG3820	1
	Major Elective(s): 2 electives	6
	Language: ELTU2014	3
	Term total	**16**
	Summer term	
	Free Elective(s): 1 course	3

	Term total	**3**
Third Year of Attendance	**1st term**	
	Major Required:	
	IERG3080/ESTR3308	3
	IERG4998/ESTR4998	3
	Major Elective(s): 2 electives	5
	College General Education: 1 course	3
	Free Elective(s): 1 course	3
	Term total	**17**
	2nd term	
	Major Required:	
	IERG3060	3
	IERG3810	1
	IERG4999/ESTR4999	3
	Major Elective(s): 2 electives	6
	Language: ELTU3014	2
	Free Elective: 1 course	3
	Term total	**18**
	Breakdown: Faculty Package + Major Required	*58*
	Major Electives	*17*
	University Core Requirement	*18*
	Free Electives	*9*
	(Exempted Units)	*(21)*
		123

Explanatory Notes:

* Non-JUPAS admittees and JUPAS with HKDSE Mathematics Extended Modules I or II are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take MATH1020 in the same term when they take MATH1510.

[a] The compulsory Physics course shall be taken in accordance with students' HKDSE results or placement test results as follows:

i) Students who have attained Level 4 or above in HKDSE Mathematics (Compulsory Part) AND Level 4 or above in Physics or Level 5 or above in Combined Science with Physics Component shall take ENGG1310/ESTR1003 or PHYS1110.

ii) Students with HKDSE results but did not attain the academic levels as stated in (i) shall take PHYS1003.

iii) Students without HKDSE results shall sit for the placement test arranged by the Department of Physics. Students who pass the placement test shall take ENGG1310/ESTR1003 or PHYS1110. Students who fail or are absent from the placement test shall take PHYS1003.

c) Recommended for those who have 21 units of exemption, including ELTU2014:

University Core Requirements	Exemption for Students	Units need to be fulfilled
English (9 units)	7 units	2 units
Chinese (6 units)	6 units	0 units
UGE (15 units)	6 units	9 units
CGE (6 units)	No exemption	6 units
IT (1 unit)	1 unit	0 units
PE (2 units)	1 unit	1 unit
39 units	Total unit exemption: 21 units	**Total: 18 units**

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package:	
	ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510*	3
	IERG2080/ESTR2306	2
	PHYS1003 /PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
	Term total	**15**
	2nd term	
	Faculty Package:	
	ENGG1100/ESTR1000,	3
	ENGG1410/ESTR1004	3
	IERG2602	1
	Major Required:	
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
	Term total	**16**
Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2420/ESTR2000	3
	IERG1810	1
	IERG2051/ESTR2302	3
	IERG2060/ESTR2304	3
	IERG3310/ESTR3310	3
	IERG3800	1
	General Education: UGEA	3
	Term total	**17**
	2nd term	
	Major Required:	
	ENGG2310/ESTR2300	3
	ENGG2470/ESTR2012	3
	IERG3820	1
	Major Elective(s): 2 electives	6
	Free Elective(s): 1 course	3
	Term total	**16**

	Summer term General Education: 1 course	 3
	Term total	**3**
Third Year of Attendance	**1st term** Major Required: IERG3080/ESTR3308 IERG4998/ESTR4998 Major Elective(s): 2 electives College General Education: 1 course Free Elective(s): 1 course	 3 3 5 3 3
	Term total	**17**
	2nd term Major Required: IERG3060 IERG3810 IERG4999/ESTR4999 Major Elective(s): 2 electives Language: ELTU3014 Free Elective(s): 1 course	 3 1 3 6 2 3
	Term total	**18**
	Breakdown: Faculty Package + Major Required *Major Electives* *University Core Requirement* *Free Electives* *(Exempted Units)*	*58* *17* *18* *9* *(21)*
		123

Explanatory Notes:

* Non-JUPAS admittees and JUPAS with HKDSE Mathematics Extended Modules I or II are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take MATH1020 in the same term when they take MATH1510.

[a] The compulsory Physics course shall be taken in accordance with students' HKDSE results or placement test results as follows:

i) Students who have attained Level 4 or above in HKDSE Mathematics (Compulsory Part) AND Level 4 or above in Physics or Level 5 or above in Combined Science with Physics Component shall take ENGG1310/ESTR1003 or PHYS1110.

ii) Students with HKDSE results but did not attain the academic levels as stated in (i) shall take PHYS1003.

iii) Students without HKDSE results shall sit for the placement test arranged by the Department of Physics. Students who pass the placement test shall take ENGG1310/ESTR1003 or PHYS1110. Students who fail or are absent from the placement test shall take PHYS1003.

d) Recommended for those who have 18 units of exemption

University Core Requirements	Exemption for Students	Units need to be fulfilled
English (9 units)	4 units	5 units
Chinese (6 units)	6 units	0 units
UGE (15 units)	6 units	9 units
CGE (6 units)	No exemption	6 units
IT (1 unit)	1 unit	0 units
PE (2 units)	1 unit	1 unit
39 units	Total unit exemption: 18 units	**Total: 21 units**

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package:	
	ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510*	3
	IERG2080/ESTR2306	2
	PHYS1003 /PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
	Term total	**15**
	2nd term	
	Faculty Package:	
	ENGG1100/ESTR1000	3
	ENGG1410/ESTR1004	3
	IERG2602	1
	Major Required:	
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
	Term total	**16**
Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2420/ESTR2000	3
	IERG1810	1
	IERG2051/ESTR2302	3
	IERG2060/ESTR2304	3
	IERG3310/ESTR3310	3
	IERG3800	1
	General Education: UGEA	3
	Term total	**17**
	2nd term	
	Major Required:	
	ENGG2310/ESTR2300	3
	ENGG2470/ESTR2000	3
	IERG3820	1
	Major Elective(s): 2 electives	6
	Language: ELTU2014	3
	Term total	**18**
	Summer term	
	Free Elective(s): 2 courses	6

		6
Third Year of Attendance	**1st term**	
	Major Required:	
	IERG3080/ESTR3308	3
	IERG4998/ESTR4998	3
	Major Elective(s): 2 electives	5
	College General Education: 1 course	3
	General Education: 1 course	3
	Term total	**17**
	2nd term	
	Major Required:	
	IERG3060	3
	IERG3810	1
	IERG4999/ESTR4999	3
	Major Elective(s): 2 electives	6
	Language: ELTU3014	2
	Free Elective(s): 1 course	3
	Term total	**18**
	Breakdown: Faculty Package + Major Required	*58*
	Major Electives	*17*
	University Core Requirement	*21*
	Free Electives	*9*
	(Exempted Units)	*(18)*
		123

Explanatory Notes:

* Non-JUPAS admittees and JUPAS with HKDSE Mathematics Extended Modules I or II are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take MATH1020 in the same term when they take MATH1510.

[a] The compulsory Physics course shall be taken in accordance with students' HKDSE results or placement test results as follows:

i) Students who have attained Level 4 or above in HKDSE Mathematics (Compulsory Part) AND Level 4 or above in Physics or Level 5 or above in Combined Science with Physics Component shall take ENGG1310/ESTR1003 or PHYS1110.

ii) Students with HKDSE results but did not attain the academic levels as stated in (i) shall take PHYS1003.

iii) Students without HKDSE results shall sit for the placement test arranged by the Department of Physics. Students who pass the placement test shall take ENGG1310/ESTR1003 or PHYS1110. Students who fail or are absent from the placement test shall take PHYS1003.

Course List

Course Code	*Course Title*	*Unit(s)*
CHEM1380	Basic Chemistry for Engineers	3
CSCI1120/ESTR1100	Introduction to Computing Using C++	3
CSCI1130/ESTR1102	Introduction to Computing Using Java	3
CSCI1140	Programming Laboratory	1
CSCI2100/ESTR2102	Data Structures	3
CSCI3150/ESTR3102	Introduction to Operating Systems	3
CSCI3160/ESTR3104	Design and Analysis of Algorithms	3
CSCI3320	Fundamentals of Machine Learning	3
CSCI4180	Introduction to Cloud Computing and Storage	3
CSCI4190	Introduction to Social Networks	3
ELEG5491	Introduction to Deep Learning	3
ELTU2014	English for Engineering I	3
ELTU3014	English for Engineering II	2
ENGG1100/ESTR1000	Introduction to Engineering Design	3
ENGG1110/ESTR1002	Problem Solving by Programming	3
ENGG1310/ESTR1003	Engineering Physics: Electromagnetics, Optics and Modern Physics	3
ENGG1410/ESTR1004	Linear Algebra and Vector Calculus for Engineers	3
ENGG1820	Engineering Internship	1
ENGG2310/ESTR2300	Principles of Communication Systems	3
ENGG2420/ESTR2000	Complex Analysis and Differential Equations for Engineers	3
ENGG2470/ESTR2012	Probability for Engineers	3
ENGG5301	Information Theory	3
ENGG5302	Random Processes	3
ENGG5303	Advanced Wireless Communications	3
ENGG5383	Applied Cryptography	3
ENGG5392	Lightwave System Technologies	3
IERG1810	Electronic Circuit Design Laboratory	1
IERG2051/ESTR2302	Signals and Systems	3
IERG2060/ESTR2304	Basic Analog and Digital Circuits	3
IERG2080/ESTR2306	Introduction to Systems Programming	2
IERG2602	Engineering Practicum	1
IERG3010/ESTR3300	Digital Communications	3
IERG3050	Simulation and Statistical Analysis	3
IERG3060	Microcontrollers and Embedded Systems	3
IERG3080/ESTR3308	Information and Software Engineering Practice	3
IERG3280/ESTR3302	Networks: Technology, Economics, and Social Interactions	3
IERG3300/ESTR3304	Introduction to Stochastic Processes	3
IERG3310/ESTR3310	Computer Networks	3
IERG3320/ESTR3306	Social Media and Human Information Interaction	3
IERG3800	Information Infrastructure Design Lab	1
IERG3810	Microcontrollers and Embedded System Laboratory	1
IERG3820	Communications Laboratory	1
IERG3830	Product Design and Development	3
IERG4030	Optical Communications	3
IERG4080/ESTR4312	Building Scalable Internet-based Services	3

Course Code	*Course Title*	*Unit(s)*
IERG4090/ESTR4302	Networking Protocols and Systems	3
IERG4100/ESTR4304	Wireless Communication Systems	3
IERG4110/ESTR4314	Hands-on Wireless Communication	3
IERG4130/ESTR4306	Introduction to Cyber Security	3
IERG4160	Image and Video Processing	3
IERG4180/ESTR4308	Network Software Design and Programming	3
IERG4190	Multimedia Coding and Processing	3
IERG4210	Web Programming and Security	3
IERG4220	Secure Software Engineering	3
IERG4230	Introduction to Internet of Things	3
IERG4300/ESTR4300 ^	Web-scale Information Analytics	3
IERG4330/ESTR4316	Programming Big Data Systems	3
IERG4340	Emerging Technologies in Information Engineering	3
IERG4831	Networking Laboratory I	2
IERG4841	Networking Laboratory II	2
IERG4998/ESTR4998	Final Year Project I	3
IERG4999/ESTR4999	Final Year Project II	3
IERG5020	Telecommunication Switching and Network Systems	3
IERG5040	Lightwave System Technologies	3
IERG5090	Advanced Networking Protocols and Systems	3
IERG5100	Advanced Wireless Communications	3
IERG5130	Probabilistic Models and Inference Algorithms for Machine Learning	3
IERG5140	Lightwave Networks	3
IERG5154	Information Theory	3
IERG5200	Channel Coding and Modulation	3
IERG5230	Algorithms and Realization of Internet of Things Systems	3
IERG5240	Applied Cryptography	3
IERG5270	Advanced Topics in P2P Networks and Systems	3
IERG5280	Mobile Networking	3
IERG5290	Network Coding Theory	3
IERG5300	Random Processes	3
IERG5310	Security and Privacy in Cyber Systems	3
IERG5320	Digital Forensics	3
IERG5330	Network Economics	3
IERG5340	IT Innovation and Entrepreneurship	3
IERG5590	Advanced Topics in Blockchain	3
LSCI1001	Basic Concepts in Biological Sciences	3
LSCI1003	Life Sciences for Engineers	3
MATH1020	General Mathematics	3
MATH1510	Calculus for Engineers	3
PHYS1003	General Physics for Engineers	3
PHYS1110	Engineering Physics: Mechanics and Thermodynamics	3
UGFH1000/ UGFN1000	University General Education Foundation Course	3

Remarks:
^ Equivalent to ENGG4030 offered in 2017-18 and before.