THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Suggested Study Plan for Advanced Standing to FYFD Places with Various Entrance Qualifications (2016)

For advanced standing students, the minimum unit requirement is 99.

a) Recommended course pattern for students who are eligible to be exempted that can be exempted ELTU2014 and an additional 3-unit General Education Foundation course.

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)	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 unit exemption: 24 units**	Total units need to be fulfilled: 15 units

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package: ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510	3
	CSCI1140	1
	PHYS1003 /PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
		14
	2nd term	
	Faculty Package:ENGG1100/ESTR1000, ENGG2601, 2602	6
	Major Required:	
	ENGG1410/ESTR1004	3
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
		18

Second Year of Attendance	**1st term** Major Required: ENGG2460/ESTR2010 IERG2060 IERG3310 IERG3800 General Education: UGEA Free Elective(s): 1 course	 3 3 3 1 3 3
		16
	2nd term Major Required: ENGG2430/ESTR2002 IERG2051/ESTR2302 Major Elective(s): 2 electives Free Elective(s): 2 courses	 3 3 6 6
		18
Third Year of Attendance	**1st term** Major Required: ENGG2310/ESTR2300 IERG3820 IERG3080 IERG4998/ESTR4998 Major Elective(s): 2 electives College General Education: 1 course	 3 1 3 3 5 3
		18
	2nd term Major Required: IERG3060 IERG3810 IERG4999/ESTR4999 Major Elective(s): 2 electives Language: ELTU3014	 3 1 3 6 2
		15
	Total (Major Requirement including Faculty Package) **+University Core Requirement + Free Electives:**	**75** **+24**

Explanatory Notes:

- Starting from 2016-17, all students who wish to take MATH1510 shall attend the Mathematics Placement Test. For those who absent from the test or fail the test, he/she shall take MATH1020 together with MATH1510.
- Non-JUPAS students will be assigned to take either PHYS1003 or 1110 according to advice of the Engineering Physics Panel.

  [a] Students who have attained Level 3 or above in HKDSE Physics or Combined Science with Physics component shall take either ENGG1310/ESTR1003 or PHYS1110. Students without HKDSE Physics or who have attained Level 2 or below in HKDSE Physics or Combined Science with Physics Component shall take PHYS1003 in advance.

b) Recommended course pattern for students can be exempted an additional 3-unit General Education Foundation course.

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)	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 unit exemption: 21 units**	Total units need to be fulfilled: 18 units

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package: ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510	3
	CSCI1140	1
	PHYS1003 /PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
		14
	2nd term	
	Faculty Package:ENGG1100/ESTR1000, ENGG2601, 2602	6
	Major Required:	
	ENGG1410/ESTR1004	3
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
		18
Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2460/ESTR2010	3
	IERG2060	3
	IERG3310	3
	IERG3800	1
	General Education: UGEA	3
	Free Elective(s): 1 course	3
		16
	2nd term	
	Major Required:	
	ENGG2430/ESTR2002	3
	IERG2051/ESTR2302	3
	Major Elective(s): 2 electives	6
	Free Elective: 1 course	3

	Language: ELTU2014	3
		18
Third Year of Attendance	**1st term** Major Required: ENGG2310/ESTR2300 IERG3820 IERG3080 IERG4998/ESTR4998 Major Elective(s): 2 electives College General Education: 1 course	 3 1 3 3 5 3
		18
	2nd term Major Required: IERG3060 IERG3810 IERG4999/ESTR4999 Major Elective(s): 2 electives Language: ELTU3014	 3 1 3 6 2
		15
	Total (Major Requirement including Faculty Package) **+University Core Requirement + Free Electives:**	**75** **+24**

Explanatory Notes:

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c) Recommended course pattern for students that can be exempted 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 units need to be fulfilled: 18 units

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package: ENGG1110/ESTR1002	3
	Major Required:	
	MATH1510	3
	CSCI1140	1
	PHYS1003 /PHYS1110[a]	3
	College General Education: 1 course	3
	Physical Education	1
		14
	2nd term	
	Faculty Package:ENGG1100/ESTR1000, ENGG2601, 2602	6
	Major Required:	
	ENGG1410/ESTR1004	3
	CSCI2100/ESTR2102	3
	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
		18
Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2460/ESTR2010	3
	IERG2060	3
	IERG3310	3
	IERG3800	1
	General Education: UGEA	3
	Free Elective(s): 1 course	3
		16
	2nd term	
	Major Required:	
	ENGG2430/ESTR2002	3
	IERG2051/ESTR2302	3
	Major Elective(s): 2 electives	6
	General Education: 1 course	3

	Free Elective(s): 1 course	3
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Third Year of Attendance	**1st term** Major Required: ENGG2310/ESTR2300 IERG3820 IERG3080 IERG4998/ESTR4998 Major Elective(s): 2 electives College General Education: 1 course	 3 1 3 3 5 3
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	2nd term Major Required: IERG3060 IERG3810 IERG4999/ESTR4999 Major Elective(s): 2 electives General Education: 1 course Language: ELTU3014	 3 1 3 6 3 2
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Total (Major Requirement including Faculty Package) +University Core Requirement + Free Electives:		**75 +24**

Explanatory Notes:

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d) Recommended course pattern for students with the following unit 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
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39 units	**Total unit exemption: 18 units**	Total units need to be fulfilled: 21 units

	Recommended Course Pattern	Units
First Year of Attendance	**1st term**	
	Faculty Package: ENGG1110/ESTR1002	3
	Major Required:	
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	2nd term	
	Faculty Package:ENGG1100/ESTR1000, ENGG2601, 2602	6
	Major Required:	
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	Any one from CHEM1380/CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/LSCI1001/1003/PHYS1110	3
	General Education: UGFH1000 or UGFN1000	3
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Second Year of Attendance	**1st term**	
	Major Required:	
	ENGG2460/ESTR2010	3
	IERG2060	3
	IERG3310	3
	IERG3800	1
	General Education: UGEA	3
	Free Elective: 1 course	3
		16
	2nd term	
	Major Required:	
	ENGG2430/ESTR2002	3
	IERG2051/ESTR2302	3
	Major Elective(s): 2 electives	6
	General Education: 1 course	3
	Language: ELTU2014	3
		18

Third Year of Attendance	**1st term** Major Required: ENGG2310/ESTR2300 IERG3820 IERG3080 IERG4998/ESTR4998 Major Elective(s): 2 electives College General Education: 1 course	 3 1 3 3 5 3
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	Total (Major Requirement including Faculty Package) **+University Core Requirement + Free Electives:**	**75** **+24**

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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
ENGG2430/ESTR2002	Probability and Statistics for Engineers	3
ENGG2460/ESTR2010	Complex Numbers, Differential Equations, and Discrete Mathematics for Engineers	3
ENGG2601	Technology, Society and Engineering Practice	2
ENGG2602	Engineering Practicum	1
ENGG4030/ESTR4300	Web-scale Information Analytics	3
ENGG5301	Information Theory	3
ENGG5302	Random Processes	3
ENGG5303	Advanced Wireless Communications	3
ENGG5383	Applied Cryptography	3
ENGG5392	Lightwave System Technologies	3
IERG2051/ESTR2302	Signals and Systems	3
IERG2060	Basic Analog and Digital Circuits	3
IERG3010/ESTR3300	Digital Communications	3
IERG3050	Simulation and Statistical Analysis	3
IERG3060	Microcontrollers and Embedded Systems	3
IERG3080	Information and Software Engineering Practice	3
IERG3280/ESTR3302	Networks: Technology, Economics, and Social Interactions	3
IERG3300/ESTR3304	Introduction to Stochastic Processes	3
IERG3310	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 Project	3
IERG4004	E-payment Systems and Cryptocurrency Technologies	3

Course Code	*Course Title*	*Unit(s)*
IERG4020/ESTR4318	Telecommunication Switching and Network Systems	3
IERG4030	Optical Communications	3
IERG4080/ESTR4312	Building Scalable Internet-based Services	3
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
IERG4150/ESTR4322	Introduction to Cryptography	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
IERG4330/ESTR4316	Programming Big Data Systems	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
IERG5040	Lightwave System Technologies	3
IERG5090	Advanced Networking Protocols and Systems	3
IERG5100	Advanced Wireless Communications	3
IERG5124	Signal Analysis and Application	3
IERG5140	Lightwave Networks	3
IERG5154	Information Theory	3
IERG5200	Channel Coding and Modulation	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
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

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