The American University in Cairo
Department of Computer Science & Engineering

Five-Year Plan of Study - Fall 2018/Spring 2019
Computer Engineering Major

Updated April 2020

First Year

Semester 1			Crs.
CSCE	106/1001	Fundamentals of Computing I	3
ENGR	101/1001	Introduction to Engineering	1
ENGR	115/1005	Descriptive Geometry and Engineering Drawing	2
PHYS	111/1011	Classical Mechanics, Sound and Heat	3
PHYS	123L/1012	General Physics Laboratory I	1
RHET	110/1010	Freshman Writing	3
CORE	110/1010	Freshman Seminar	3
		Total Credit Hours	16

Semester 2			Crs.
CSCE	110/1101	Fundamentals of Computing II	3
CSCE	000/1102	Fundamentals of Computing II Lab (1 cr.)	1
CHEM	105/1005	General Chemistry I	3
CHEM	115L/1015	General Chemistry Laboratory	1
PHYS	112/1021	Electricity and Magnetism	3
PHYS	124L/1022	General Physics Laboratory II	1
MACT	132/1122	Calculus II	3
RHET	120/1020	Research Writing	3
LALT	101/1020	Libraries & Learning Technologies	0
		Total Credit Hours	18

Second Year

Semester 3			Crs.
CSCE	230/2301	Digital Design I	3
CSCE	239L/2302	Digital Design I Lab	1
ENGR	212/2102	Engineering Mechanics I (Statics)	3
PHYS	215/2211	Introduction to Electronics	3
PHYS	222L/2213	Electronics Lab for Computer Scientists & Computer Engineers	1
MACT	200/2131	Discrete Mathematics	3
SCI	120/1020	Scientific Thinking	3
		Total Credit Hours	17

Semester 4			Crs.
CSCE	321/2202	Analysis & Design of Algorithms	3
CSCE	000/2203	Analysis & Design of Algorithms Lab	1
CSCE	231/2303	Computer Organization & Assembly Language Programming	3
CSCE	332/3303	Fundamental Microelectronics	3
PHIL	220/2100	Philosophical Thinking	3
XXXX	XXXX	Pathways 2: Cultural Explorations	3
		Total Credit Hours	16

Third Year

Semester 5			Crs.
CSCE	253/2501	Fundamentals of Database Systems	3
CSCE	330/3301	Computer Architecture	3
CSCE	339L/3302	Computer Architecture Lab	1
CSCE	341/3701	Software Engineering	3
MACT	231/2123	Calculus III	3
XXXX	XXXX	Global Studies	3
		Total Credit Hours	16

Semester 6			Crs.
CSCE	345/3401	Operating Systems	3
CSCE	000/3402	Operating Systems Lab	1
CSCE	363/3611	Digital Signal Processing	3
CSCE	337/3304	Digital Design II	3
ENGR	214/2104	Engineering Mechanics II (Dynamics)	3
MACT	233/2141	Differential Equations	3
XXXX	XXXX	Humanities/Social Sciences (Secondary Level)	3
		Total Credit Hours	19

Fourth Year

Semester 7			Crs.
CSCE	445/4411	Fundamentals of Distributed Systems	3
CSCE	4311/3312	Computer Networks	3
CSCE	4312/3313	Computer Networks Lab	1
MACT	240/2132	Linear Algebra	3
MACT	317/3224	Probability and Statistics	3
XXXX	XXXX	Arab World Studies 1	3
		Total Credit Hours	16

Semester 8			Crs.
CSCE	432/4301	Embedded Systems	3
CSCE	438L/4302	Embedded Systems Lab	1
CSCE	XXXX	Concentration Elective	3
CSCE	XXXX	Concentration Elective	3
ENGR	313/3202	Engineering Analysis and Computation I	3
XXXX	XXXX	Arab World Studies 2	3
		Total Credit Hours	16

Fifth Year

Semester 9			Crs.
CSCE	490/4950	Industrial Training	1
CSCE	491/4980	Senior Project I (Core Capstone I)	1
CSCE	XXXX	Concentration Elective	3
CSCE	XXXX	Concentration Elective	3
ENGR	345/3222	Engineering Economy	3
ENGR	364/3322	Fundamentals of Thermofluids	3
		Total Credit Hours	14

Semester 10			Crs.
CSCE	492/4981	Senior Project II (Core Capstone I)	2
CSCE	XXXX	Concentration Elective	3
MGMT	307/3201	Management Fundamentals	3
XXXX	XXXX	Core Capstone II	3
XXXX	XXXX	General Elective	3
		Total Credit Hours	14

1) Major Requirements are according to Fall 2018/Spring 2019 Catalog Admission &/or Declaration.

2) Core Curriculum Requirements are according to Fall 2013 Admission and later.