

Computer Systems Engineering

Study Plan

	Course Code	Course Title	Course Type	Pre-R	Co-R	Credit Hours	Contact Hours
Semester 1	XXXX	Arts and Humanities (Group I) Elective	UM			3	3
	ENL101	English for Academic Studies	UM	IEP099 or Equivalent	DPS095	3	3
	MAT101	Calculus I	UM	IMP099 or Equivalent		3	3
	PHY101	Physics I	UM		MAT101	3	3
	PHY105	Physics I Lab	CM		PHY101	1	3
	MAT120	Discrete Mathematics	CM	IMP099 or Equivalent		3	3
	INF120	Computers and Information Systems	UM	DPS095		3	3
<i>Total</i>						19	21

Semester 2	BIO101 or CHM101	Biology I or Chemistry I	CM	IMP099 or Equivalent		3	3
	BIO105 or CHM105	Biology I Lab or Chemistry I Lab	CM		BIO101 or CHM101	1	3
	MAT102	Calculus II	CM	MAT101		3	3
	ENL102	English Composition	UM	ENL101 DPS095		3	3
	CCS120	Computational Thinking & Programming	CM	MAT120		3	3
	CCS121	Computational Thinking & Programming Lab	CM		CCS120	1	3
	GEN150	Professionalism and Ethics	UM			3	3
<i>Total</i>						17	21

Semester 3	CCS200	Digital Logic and Design	CM	PHY101		3	3
	MAT202	Linear Algebra	CM	MAT101		3	3
	MAT221	Number Theory	CM	MAT102		3	3
	ENL201	Writing and Research	UM	ENL102		3	3
	CCS220	Object-Oriented Design & Programming	CM	CCS120		3	3
	CCS221	Object-Oriented Design & Programming Lab	CM		CCS220	1	3
	MAT240	Differential Equations	CM	MAT102		3	3
<i>Total</i>						19	21

	Course Code	Course Title	Course Type	Pre-R	Co-R	Credit Hours	Contact Hours
Semester 4	XXXX	Innovation and Creativity Elective	UM			3	3
	ENG304	Engineering Probability & Statistics	CM	MAT102		3	3
	ENG308	Numerical Methods	CM	MAT202 MAT240		3	3
	CCS230	Fundamentals of Database Systems	CM	CCS220 MAT120		3	3
	CCS231	Fundamental of Database Systems Lab	CM		CCS230	1	3
	XXXX	Arts and Humanities (Group II) Elective	UM			3	3
	CCS241	Fundamentals of Computer Networks	CM	CCS200		3	3
Total						19	21

Semester 5	PHY102	Physics II	CM	PHY101 MAT101		3	3
	PHY107	Physics II Lab	CM	PHY105	PHY102	1	3
	CME220	Introduction to Computer Systems Engineering	PM	CCS200		3	3
	CCS270	Data Structures and Algorithms	CM	CCS220		3	3
	CCS271	Data Structures and Algorithms Lab	CM		CCS270	1	3
	HST101	Islamic Culture and Values	UM			3	3
Total						14	18

Semester 6	CCS320	Fundamentals of Operating Systems	CM	CCS270		3	3
	XXXX	Global Citizen Elective	UM			3	3
	CME360	Network and System Security	PM	CCS241		3	3
	ENG205	Electrical and Electronics Circuits	PM	PHY102 MAT102		3	3
	CME310	Computer Architecture and Organization	PM	CCS200		3	3
	CME311	Computer Architecture and Organization Lab	PM		CME310	1	3
Total						16	18

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Semester 7	ENG206	Electrical and Electronics Circuits Lab	PM	ENG205 PHY107		1	3
	CME410	Programming for Computer Engineering	PM	CCS220		3	3
	CME411	Programming for Computer Engineering Lab	PM		CME410	1	3
	CME420	Embedded and Microprocessor Systems	PM	CME 310		3	3
	CME421	Embedded and Microprocessor Systems Lab	PM		CME420	1	3
	XXXX	Program Elective I	PE			3	3
	CME490	Capstone Design 1	PM	Pass 96 CH		3	3
<i>Total</i>						15	21
Semester 8	CME341	Systems and Signal Processing	PM	ENG205		3	3
	XXXX	Program Elective 2	PE			3	3
	CME430	Digital Systems Design	PM	CME 310		3	3
	CME431	Digital Systems Design Lab	PM		CME430	1	3
	CME491	Capstone Design 2	PM	CME490		3	3
<i>Total</i>						13	15

Note that the University Mandatory (UM), College Mandatory (CM), Program Mandatory (PM), and Program Elective (PE) courses