

**Bachelor of Science in Computer Engineering  
Study Plan (Fall Start)**

**Total Credit Hours: 137**

**First Year (Freshman)**

**Semester 1**

Code	Title	Cr.	Prerequisite
ARL101(A)	Comm. Skills in Arabic I	3	Nil
ECS200	Intro. to Engr. & Computing	3	Nil
MTT102	Calculus I	3	MPT/MTT101(C)
STT100	General Statistics	3	Nil
ISL100(A)	Islamic Culture	3	Nil

**Total Credit Hours 15**

**Semester 2**

Code	Title	Cr.	Prerequisite
FWS205	UAE and GCC Society	3	ENG102
ENG200	English II	3	EPT/IELTS6/EmSAT 1400/ENG102
GEN101	Introduction to Artificial Intelligence	3	STT100
PHY102	Physics & Engr. Applications I	3	MTT102
PHY102L	Physics & Engr. Applications I Lab	1	MTT102, PHY102(co)
MTT 200	Calculus II	3	MTT102

**Total Credit Hours 16**

**Second Year (Sophomore)**

**Semester 3**

Code	Title	Cr.	Prerequisite
CSC201	Computer Programming I	3	MTT101 or higher
PHY201	Physics & Engr. Applications II	3	PHY102
PHY201L	Physics & Engr. Applications II Lab	1	PHY102, PHY201(co)
CSC303	Digital Logic Design	3	ECS200
OE1	Open Elective I	3	
MTT202	Discrete Structures and Applications	3	STT100

**Total Credit Hours 16**

**Semester 4**

Code	Title	Cr.	Prerequisite
CSC202	Computer Programming II	3	CSC201
CEN333	Cross-platform Mobile App. Develop.	3	CSC201
CEN201	Electric Circuits I	3	ECS200 or PHY201
GEN201	Engineering Economy	2	ENG200, MTT102
MTT205	Differential Equations	3	MTT200, MTT204(co)
MTT204	Introduction to Linear Algebra	3	MTT200

**Total Credit Hours 17**

**Third Year (Junior)**

**Semester 5**

Code	Title	Cr.	Prerequisite
CEN320	Signals and Systems	3	MTT205, CEN201
CSC301	Data Structures and Algorithms	3	CSC202, MTT202
CSC305	Data Communications and Networks	3	Junior Level
CEN304	Electronic Devices and Circuits	3	CEN201
CEN325	IoT: Foundation & Design	3	CSC201, CSC303
GEN300	Numerical Methods	3	MTT205, CSC201

**Total Credit Hours 18**

**Semester 6**

Code	Title	Cr.	Prerequisite
CEN330	Probability and Stochastic Processes	3	MTT200, STT100
CSC308	Operating Systems	3	CSC301
CSC408	Distributed Information Systems	3	CSC202, CSC305
CEN324	Digital and Analog Electronics	3	CEN304
CEN425	IoT: Applications & Networking	3	CEN325, CEN333
FWS310	Fund. of Innovation & Entrepreneurship	3	ENG200, 60 credits

**Total Credit Hours 18**

**Summer Semester**

Code	Title	Cr.	Prerequisite
CEN399i	Internship in Computer Engineering	3	90 Credit Hours

**Fourth Year (Senior)**

**Semester 7**

Code	Title	Cr.	Prerequisite
OE2	Open Elective 2	3	
ME1	Major Elective 1	3	
CEN468	Computer Architecture and Organization	3	CSC303, CEN325
CEN455	Fund. of Sec. for Computer & Embedded Systems	3	CSC308, CSC305, CEN325
CEN464	Digital Signal Processing	3	CEN320
CEN451	Computer Engineering Design Project I	1	Senior level, CEN425

**Total Credit Hours 16**

**Semester 8**

Code	Title	Cr.	Prerequisite
EEN365	Control Systems	3	CEN320, MTT204
CEN466	Advanced Digital System Design	3	CSC303
ME2	Major Elective II	3	
CEN452	Computer Engineering Design Project II	2	CEN451
GEN400	Engineering Ethics	1	Senior level
CEN454	Computer Vision and Machine Learning	3	CEN464, CEN330
ME3	Major Elective III	3	

**Total Credit Hours 18**