



Bachelor's Degree of Mobile and Network Engineering (BSMNE)

Ref: UC/P 584/2022

As approved by University Council Decision No. UC/2300/15/2021-22 of meeting No. UC/15/2021-22 held on Wednesday the 27th of July 2022.

This revised study plan is to be implemented as of the First Semester of the academic year 2022/2023 and is to supersede the previous version of the study plan (Reference No.: UC/P 557/2022).

BACHELOR'S DEGREE IN MOBILE & NETWORK ENGINEERING (BSMNE)

Study plan

134 Credits

BSMNE FIRST YEAR (35 Cre.)

FIRST SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ARAB	101	Composition for Native Speakers of Arabic I	3	0	3	
ENGL	101	Academic English I	3	0	3	(ENGL052 and ENGL055) or passing placement test
ITCS	101	Introduction to Computers & IT	2	2	3	
MATH	101	Calculus I	3	0	3	MATH 053 or passing placement test
PHYS	101	General Physics I	3	0	3	MATH 053 or passing placement test
STAT	101	Introduction to Statistics	3	0	3	MATH 053 or passing placement test
					18	

SECOND SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ENGL	102	Academic English II	3	0	3	ENGL 101
HIST	121	Modern History of Bahrain	3	0	3	
ITCS	122	Introduction to Programming Techniques	2	2	3	ITCS 101
MATH	102	Calculus II	3	0	3	MATH 101
PHYS	102	Physics II	2	2	3	PHYS 101
HUMR	101	Principles of Human Rights	2	0	2	
					17	

BSMNE SECOND YEAR (33 Cre.)

FIRST SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECCE	201	Electric Circuits	2	2	3	PHYS 102 and MATH 102
ITCS	209	Discrete Structures	3	0	3	MATH 101
MATH	205	Differential Equations	3	0	3	MATH 102
ITCS	201	Object-Oriented Programming I	2	2	3	ITCS 122
ENGL	201	Academic English III	3	0	3	ENGL 102
					15	

SECOND SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECCE	221	Electronic Circuits	2	2	3	ECCE 201
ITCS	224	Data Structures	2	2	3	ITCS 201
ECTE	224	Signals & Systems	2	2	3	MATH 205
ECCE	203	Digital Logic	2	2	3	ITCS 101
MATH	223	Linear Algebra and complex analysis	3	0	3	MATH 101
ENGL	210	Technical Report Writing	3	0	3	ENGL 201
					18	

BSMNE THIRD YEAR (36 Cre.)**FIRST SEMESTER**

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECCE	303	Computer Architecture and Organization	2	2	3	ECCE 203
ECTE	314	Communication Systems I	2	2	3	ECTE 224 and ECCE 221
ITCS	323	Database Systems: Design and Application	2	2	3	ITCS 224
ECTE	328	Mobile Application Development	2	2	3	ITCS 201 and ITCS 224
STAT	302	Applied Probability	3	0	3	STAT 101 and MATH 102
ECTE	329	Computer Networks	2	2	3	ECCE 203
					18	

SECOND SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECTE	324	Communication Systems II	2	2	3	ECTE 314
ECTE	322	Antenna and wave propagation	2	2	3	MATH 205 and MATH 223
ECTE	349	Network Routing & Switching	2	2	3	ECTE 329
ETHC	392	Ethics and Professional Practice in IT and Engineering	3	0	3	Completion of at least 66 credits
HU/SS	XXX	Humanities/ Social Sciences	3	0	3	
					15	

SUMMER SESSION

INTR	462**	BSMNE Internship	0	0	3	Completion of at least 90 credits and minimum CGPA 2
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BSMNE FOURTH YEAR (30 Cre.)

FIRST SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECTE	421	Network Design & Security	2	2	3	ECTE 349
ECTE	450	Digital Signal Processing	2	2	3	ECTE 224
IERM	498	Research Methods in Information Technology & Engineering	3	0	3	Completion of at least 90 credits
XXXX	XXX	Major Elective I	x	x	3	
XXXX	XXX	Major Elective II	x	x	3	
					15	

SECOND SEMESTER

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECTE	406	Multimedia Communications	2	2	3	ECTE 450
ECTE	424	Wireless Communications	2	2	3	ECTE 324 and ECTE 322
ECTE	499*	Major Project	0	6	3	IERM 498 and ETHC 392
XXXX	XXX	Major Elective III	x	x	3	
XXXX	XXX	Major Elective IV	x	x	3	
					15	

* Equivalent to 6 practical hours.

LIST OF PROGRAMME ELECTIVE COURSES

COURSE	CODE	COURSE TITLE	LEC.	LAB.	CRE.	PREREQUISITE
ECCE	413	Internet of Things	2	2	3	ECCE 303 and ECTE 329
ECCE	424	Cyber security	2	2	3	STAT 302
ECTE	414	WAN technology	2	2	3	ECTE 329
ECTE	454	Satellite and space communications	2	2	3	ECTE 322
ECTE	472	Software-Defined Radio	2	2	3	ECTE 324
ECTE	474	Optical Communications	2	2	3	ECTE 324
ITCS	409	Operating Systems	3	0	3	ECCE 303
ITCS	422	Distributed Systems	2	2	3	ITCS 409
ITMS	437	Cloud Services Development	2	2	3	ITCS 323
ECCE	425	Engineering Management	3	0	3	Completion of at least 90 credits