



PROGRAM SHEET

BACHELOR OF SCIENCE IN GENERAL ENGINEERING

(BSGE)

OFFICE OF THE REGISTRAR
AL AKHAWAYN UNIVERSITY
ENROLLMENT SERVICES

UNIVERSITY CORE CURRICULUM**56-57 SCH**

SSK 1201	Study Skills I: Skills for Learning and Research	2 SCH
SSK 1202	Study Skills II : Critical Reading and Problem Solving (<i>Pre-requisite: SSK 1201, SSK 1203; co-requisites: AWT 1002 and ARD1002</i>)	2 SCH
SSK 1203	Computer Skills for Independent Learning	2 SCH
SSK 1204	Applied Independent Learning Methods (<i>Pre-requisite: SSK 1201, SSK 1203; co-requisites: AWT 1002 and ARD1002</i>)	2 SCH
SSK 1205	Inter-personal skills and Social interaction in an Academic Context (<i>Co-requisite: ALS 1002</i>)	2 SCH
ARB series	Appropriate placement to be determined by student's entry level	3 SCH
FRN series	Appropriate placement to be determined by student's entry level	2 SCH
FRN or ARB	Appropriate placement to be determined by student's entry level	2-3 SCH
BIO 1401 or BIO 1402	Principles of Biology , or Environmental Biology	4 SCH
CHE 1401	General Chemistry I	4 SCH
CSC 1401	Computer Programming	4 SCH
ENG 1301	English Composition I (<i>Pre-requisite: All Language Center modules</i>)	3 SCH
ENG 1302	English Composition II (<i>Pre-requisite: SSK 1202, SSK 1204 and Eng 1301</i>)	3 SCH
HIS 1301 or HIS 1302 or PSC 2301	History of the Arab World (<i>Pre-requisite: ENG 1301 and SSK1202</i>), or Contemporary World History, or Comparative Political System (<i>Pre-requisite: ENG 1302</i>)	3 SCH
COM1301	Communication through Speaking (<i>Pre-requisite: ENG 1301, SSK1205 and SSK1202</i>)	3 SCH
HUM 3301 or HUM 3302 or HUM 3306 or LIT 2301 or PHI 2301	Introduction to Islamic Art and Architecture, or Introduction to the Study of Islamic Civilization, or Comparative Religion (<i>Pre-requisite: Junior standing</i>) or Major Works in World Literature (<i>Pre-requisite: Sophomore standing and ENG 1302</i>) or Philosophical Thought (<i>Pre-requisite: ENG 1302</i>)	3 SCH
MTH 1304	Discrete Mathematics for Engineers	3 SCH
PED 1201	Physical Education: Fitness for Living	2 SCH
PHY 1401	Physics I (<i>Pre-requisite: MTH 1303</i>)	4 SCH
SOC 1301 or PSY 1301	Introduction to Sociology, or Introduction to Psychology	3 SCH

GENERAL ENGINEERING CORE**53 SCH**

CHE 1402	General Chemistry II (<i>Pre-requisite : CHE 1401</i>)	4 SCH
CSC 2302	Data Structure (<i>Pre-requisite : CSC 1401 and MTH 1304</i>)	3 SCH
CSC 2303	Advanced Programming/Object-Oriented programming (<i>Pre-requisite : CSC 2302</i>)	3 SCH
CSC 2304	Computer Architecture (<i>Pre-requisite : CSC 2302 and EGR 3331</i>)	3 SCH
CSC 3324	Software Engineering I (<i>Pre-requisite : CSC 2303</i>)	3 SCH
CSC 3352	Computer Communication (<i>Pre-requisite : CSC 2303 and CSC 2304</i>)	3 SCH
EGR 2302	Engineering Economics (<i>Pre-requisite : MTH 1303</i>)	3 SCH
EGR 2402	Electric Circuits I (<i>Pre-requisite : PHY 1402</i>)	4 SCH
EGR 3304	Materials Science (<i>Pre-requisite : CHE 1402 and PHY 1402</i>)	3 SCH
EGR 3306	Engineering Instrumentation (<i>Pre-requisite : EGR 2402</i>)	3 SCH
EGR 3308	Thermal Engineering (<i>Pre-requisite : PHY 1402</i>)	3 SCH
EGR 3331	Digital Design (<i>Co-requisite : PHY 1402</i>)	3 SCH
EGR 3402	Statics and Dynamics (<i>Pre-requisite : MTH 2301 and PHY 1401</i>)	4 SCH
EGR 4402	Capstone Design (<i>To be taken during the last regular semester of enrollment</i>)	4 SCH
EGR 4300	Internship (<i>Pre-requisite : Senior standing</i>)	3 SCH
PHY 1402	Physics II (<i>Pre-requisite : PHY 1401</i>)	4 SCH

CONCENTRATIONS**12 SCH****COMPUTER SCIENCE**

CSC 3351	Operating Systems (<i>Pre-requisite : CSC 2303 and CSC 2304</i>)	3 SCH
CSC 3326	Database Systems (<i>Pre-requisite : CSC 3324</i>)	3 SCH
In addition: 2 advanced courses in computer science		6 SCH

MINOR (REQUIRED IN MATHEMATICS)**15 SCH**

MTH1303	Differencial & Integral Calculus	3 SCH
MTH 2301	Multivariable Calculus (<i>Pre-requisite : MTH 1303</i>)	3 SCH
MTH 2303	Linear Algebra (<i>Pre-requisite : MTH 2301</i>)	3 SCH
MTH 2304	Differential Equations (<i>Pre-requisite : MTH 2303</i>)	3 SCH
MTH 3301	Probability & Statistics fo Engineers (<i>Pre-requisite : MTH 2301</i>)	3 SCH

ELECTIVES**3 SCH**

One elective will be chosen from university undergraduate courses in collaboration with, and with approval of, the academic advisor and academic coordinator. The following courses are not acceptable as BSGE electives: CHE 1400, CSC1400, MTH 1399, MTH 1301, and PHY 1400. Graduate courses in the major may be taken as electives after special permission from the Dean.

TOTAL**139-140 SCH**

NB. The combined BS/MS program allows qualified GE students to pass directly from the BS to the MS in Computer Science/ Computer Networks/ Software Engineering (for more details refer to the catalog).

