



First: University Requirements (27) Cr.H.
A. First Field: University Compulsory Requirements: (15) Cr.H.

| Course No. | Course Title | Cr.H. | Prerequisite |
|------------|-----------------------------|-------|--------------|
| 114101 | Arabic Language Skills (1) | 3 | 114099 |
| 111100 | Military Science | 3 | --- |
| 130101 | English Language Skills (1) | 3 | 130099 |
| 130102 | English Language Skills (2) | 3 | 130101 |
| 111101 | National Education | 3 | --- |
| 111000 | Student Community Service | 0 | --- |

B. University Elective Courses (12) Cr.H.
The student studies 12 credit hours from the table below.

| Course No. | Course Title | Cr.Hr. | Prerequisite |
|------------|------------------------------------|--------|--------------|
| 140111 | Language Skills(1) | 3 | --- |
| 140112 | Language Skills (2) | 3 | --- |
| 111133 | Human Thought and Civilization (1) | 3 | --- |
| 420143 | Legal Culture | 3 | --- |
| 420140 | Human Rights | 3 | --- |
| 330111 | Introduction to Project Management | 3 | --- |
| 731102 | Social Networking Skills | 3 | --- |
| 910102 | Human Health Culture | 3 | --- |
| 780101 | Communication Skills | 3 | --- |
| 610230 | Pioneering and Creativity | 3 | --- |
| 240152 | Environmental Culture | 3 | --- |
| 111112 | Introduction To Psychology | 3 | --- |

Codes used in Study Plan:

(610) Electrical Eng.
(611) Renewable Eng.
(630) Computer Eng.
(650) Communications & Electronics Eng.
(670) Civil Eng.
(620) Mechanical Eng.
(615) Alternative energy Eng.
(640) Mechatronics Eng.
(660) Architectural Eng.

Second: Faculty Compulsory Requirements: (27) Cr.Hr.

| Course No. | Course Title | Cr.Hr. | Prerequisite |
|------------|------------------------------|--------|--------------|
| 250101 | Calculus (1) | 3 | --- |
| 250102 | Calculus (2) | 3 | 250101 |
| 211101 | General Physics (1) | 3 | --- |
| 211102 | General Physics (2) | 3 | 211101 |
| 212101 | General Chemistry (1) | 3 | --- |
| 660131 | Manual Engineering Drawing | 1 | --- |
| 660132 | Computer Engineering Drawing | 1 | 660131 |
| 620171 | Engineering Workshop (1) | 1 | 660132 |
| 630263 | Programming Language | 3 | --- |
| 640253 | Engineering Skills | 3 | 130102 |
| 610550 | Entrepreneurship | 3 | 640253 |

Third: Department Requirements (106) Cr.H.
A. Major Requirements: (82) Cr.H.

| Course No. | Course Title | Cr.Hr. | Prerequisite |
|------------|--------------------------------------|--------|---------------|
| 620172 | Engineering Workshop (2) | 1 | 620171 |
| 212102 | General Chemistry Lab (1). | 1 | 212101 |
| 610211 | Electrical Circuits (1) | 3 | 211102(*) |
| 610212 | Electrical Circuits (2) | 3 | 610211 |
| 610216 | Electrical Circuits Lab. | 1 | 610211(*) |
| 640216 | Electronics for Mechatronics | 3 | 610211 |
| 640234 | Statics and Strength of Materials | 3 | 211101 |
| 640233 | Dynamics and Vibrations | 3 | 640234 |
| 630211 | Logic Circuit | 3 | 630263 |
| 640221 | Programming Lab for Mechatronics | 1 | 630263 (*) |
| 640327 | Modeling and Simulation | 3 | 640233+650260 |
| 640314 | Electrical Machines for Mechatronics | 3 | 610212 |
| 640312 | Power Electronics and Drives | 3 | 640314+640216 |
| 640313 | Communication for Mechatronics | 3 | 640216 |
| 640242 | Instruments and Transducers | 3 | 640216 |
| 640337 | Mechanics and Vibration lab | 1 | 640233(*) |
| 640328 | Microprocessors and Microcontrollers | 3 | 630211 |
| 640344 | Automatic Control Theory | 3 | 640327 |
| 620333 | Machines Theory | 3 | 640233 |
| 640342 | Mechatronics Project | 1 | 640328 |

Course No. **Course Title** **Cr.H.** **Prerequisite**

| | | | |
|--------|-------------------------------------|---|-------------------------------|
| 640415 | Machine and Power Electronics lab | 1 | 640312(*) +640412(*) |
| 640445 | Programmable Logic Controllers | 3 | 640328 |
| 640441 | Digital Control | 3 | 640344+640328 |
| 640442 | Automatic Control Lab | 1 | 640344(*) |
| 640412 | Electronics and Transducers Lab | 1 | 640242(*) +610216(*) |
| 640448 | Microcontrollers Lab | 1 | 640328(*) |
| 640458 | Reverse Engineering | 3 | 640342 |
| 640435 | Pneumatic and Hydraulic Systems | 3 | 640445(*) |
| 640447 | Mechatronics Systems Design | 3 | 640344+640312 |
| 640542 | Robotics and Automation | 3 | 620333 |
| 640544 | Mechatronics Systems Design Lab | 1 | 640447(*) |
| 640541 | CAD/CAM Lab | 1 | 660132(*) |
| 640531 | Automation and Fluids Control Lab | 1 | 640435(*) |
| 640543 | Signals Processing for Mechatronics | 3 | 640441 |
| 640440 | Engineering Project (1) | 1 | Passing 100 Hr + 640447(*) |
| 640540 | Engineering Project (2) | 2 | 640440+640499 |
| 640499 | Engineering Training | 3 | Passing 115 Hr |

B. Support Requirements: (15) Cr.Hr.

| Course No. | Course Title | Cr.H. | Prerequisite |
|------------|----------------------------------------------------------------|-------|--------------|
| 250202 | Calculus (3) | 3 | 250102 |
| 250205 | Linear Algebra, Vector Differentiation, and Vector Integration | 3 | 250102 |
| 650260 | Engineering Analysis (1) | 3 | 250102 |
| 630262 | Engineering Analysis (2) | 3 | 250205 |
| 650364 | Probability and Random Variables | 3 | 650260 |

C. Elective Requirements: (9) Cr.Hr.

| Course No. | Course Title | Cr.H. | Prerequisite |
|------------|--------------------------------|-------|---------------|
| 630512 | Real Time Systems | 3 | 640344 |
| 640593 | Special Topics in Mechatronics | 3 | Dept. Perm. |
| 640512 | Computer Numerical Control | 3 | 640541(*) |
| 640462 | Process Control | 3 | 640344 |
| 620414 | Mechanical Vibration | 3 | 640233 |
| 640424 | Machine Intelligence | 3 | 630263+650364 |

(*) corequisite.

مراجعة المادة الدراسية

16.09.2020

16.9.2020

16.9.2020