

The B.Sc. degree in Electrical Engineering requires the fulfillment of 160 Credit Hours as shown in Table (1)

| Requirements | Compulsory Credit Hours | Elective Credit Hours | Total |
|-------------------------|--------------------------------|------------------------------|--------------|
| University Requirements | 12 | 15 | 27 |
| Faculty Requirements | 29 | - | 29 |
| Supporting Courses | 12 | - | 12 |
| Department Requirements | 83 | 6 | 92 |
| Free Course | 3 | | |
| Total | 139 | 21 | 160 |

II: Second: Faculty Requirements (29Credit hours)

| Course No. | Course title | Credit Hours | Prerequisite |
|-------------------|------------------------------|---------------------|-----------------------|
| ٠٣٠١١٠١ | Calculus (1) | 3 | -- |
| ٠٣٠١١٠٢ | Calculus (2) | 3 | ٠٣٠١١٠١ |
| ٠٣٠٢١٠١ | General Physics (1) | 3 | - |
| ٠٣٠٢١١١ | Physics Laboratory (1) | 1 | ٠٣٠٢١٠١ or concurrent |
| ٠٣٠٢١٠٢ | General physics 2 | 3 | ٠٣٠٢١٠١ |
| ٠٣٠٢١١٢ | Physics Laboratory (2) | ١ | ٠٣٠٢١٠٢ or concurrent |
| 0303101 | General Chemistry | 3 | -- |
| 0303103 | General Chemistry Laboratory | 1 | or 0303101 concurrent |
| 0306110 | Computer programming 1 | 3 | -- |
| 0902203 | Engineering drawing | 3 | -- |
| 0901127 | Engineering workshops | 1 | -- |
| 0902401 | Technical Writing | 1 | -- |

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| 0902362 | Engineering Economy | 3 | -- |
| Total | | 29 | |

VI: Department Requirements: (92 Credit Hours),

They are shown in the two following tables, Compulsory and Elective lists:

a. Compulsory Courses, (83 Cr. Hrs)

| Course No. | Course title | Credit Hours | Prerequisite |
|------------|---------------------------------------|--------------|----------------------|
| 0902201 | Statics | ३ | 0301102 |
| 0904211 | Electrical Circuits (1) | ३ | 0301102+ 0302102 |
| 0904212 | Electrical Circuits (2) | ३ | 0904211 |
| 0904213 | Electrical Circuits lab | १ | 904212 or concurrent |
| 0904221 | Electronics (1) | ३ | 0904211 |
| 0904231 | Electromagnetism | ३ | 0904212 |
| 0904322 | Digital Fundamentals | ३ | 0306110 |
| 0904323 | Digital Fundamentals lab | १ | 0904322 |
| 0904324 | Electronics (2) | ३ | 0904221 |
| 0904325 | Electronics lab | १ | 0904324 |
| 0904432 | Analog communications | ३ | 0904327 |
| 0904433 | Communications lab | १ | 0904432 |
| 0904351 | Electrical machines | ३ | 0904231 |
| 0904352 | Electrical machines and semiconductor | ३ | 0904351 |

| | | | |
|---------|---|---|-----------------------|
| | drive | | |
| 0904353 | Electrical machines lab | ۱ | 0904351 |
| 0904354 | Electrical machines and semiconductor drive lab | ۱ | 0904352 |
| 0904421 | Power Electronics | ۳ | 0904324 |
| 0904422 | Power Electronics Lab | ۱ | 0904421 |
| 0904481 | Electrical Wiring | ۳ | 0904351 |
| 0904483 | Power System analysis | ۳ | 0904351 |
| 0904485 | Power system lab | ۱ | 0904483 |
| 0904588 | Electrical Engineering Software (1) | ۱ | 0904324+0306110 |
| 0904589 | Electrical Engineering Software (2) | ۱ | 0904354+0904588 |
| 0904591 | project (1) | ۱ | pass 120 credit hours |
| 0904592 | Project (2) | ۳ | 0904591 |
| 0904341 | measurement and instrumentation | ۳ | 0904324 |
| 0904342 | measurement and instrumentation lab | ۱ | 0904341 |
| 0904445 | control Theory | ۳ | 0904326 |
| 0904446 | Control lab | ۱ | 0904445 |
| 0904326 | Signal Analysis | ۳ | 0904202+0301102 |
| 0904448 | Digital Electronics | ۳ | 0904322+0904324 |
| 0904449 | Communication Electronics | ۳ | 0904432+ 0904324 |
| 0904532 | Digital communication | ۳ | 0904432 |
| 0904533 | Communication system | ۳ | 0904532 |

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|---------|---|----|-----------------------|
| 0904464 | Microprocessors and Assembly language | ۳ | 0904448 |
| 0904466 | Microprocessors and Assembly language lab | ۱ | 0904464 or concurrent |
| 0904467 | Microcontroller | ۳ | 0904466 or concurrent |
| Total | | 83 | |

b) Elective Courses: (6 Cr. Hrs.)

A minimum of (6) Credit Hours of Coursework are required and to be chosen from the following courses:

| Course Number | Course Title | Cr. Hour | Prerequisite |
|---------------|--|----------|--------------|
| 0904593 | Special Topics in Power Engineering | ۳ | 0904483 |
| 0904488 | Power System Distribution & Transmission | ۳ | 0904483 |
| 0904594 | Power Plants | ۳ | 0904483 |
| 0904595 | Electrical Drive | ۳ | 0904352 |
| 0904487 | Power System Protection | ۳ | 0904483 |
| 0904582 | High Voltage Engineering | ۳ | 0904483 |
| Or | | | |
| 0904536 | Special Topics in Communications Engineering | 3 | 0904532 |
| 0904534 | digital Signal process and filters | 3 | 0904326 |
| 0904535 | Mobile Communication | 3 | 0904532 |
| and | | | |

| | | | |
|--|------------|---|--|
| | Freecourse | 3 | |
|--|------------|---|--|

III: Supporting Courses: (12 credit hours)

They are shown in the list below

| Course No. | Course title | Cr.h. | Prerequisite |
|------------|-------------------------------------|-------|-----------------|
| 0904202 | Numerical Analysis | ٣ | 0301102+0306110 |
| 0904327 | Probability and Random Variables | ٣ | 0904326 |
| 0904214 | Advanced Engineering Mathematic (1) | ٣ | 0301102 |
| 0904311 | Advanced Engineering Mathematic (2) | ٣ | 0904214 |
| Total | | 12 | |

Field Engineering Training

Student should start field training after finishing a minimum of 110 Credit Hours of his study, for a period of 8 weeks in Jordan, or 6 weeks in other countries. Training should be in one of the accredited Engineering Consultants.