

قسم الاتصالات

تم افتتاح الدراسات العليا في قسم هندسة الاتصالات منذ عام ٢٠٠٩-٢٠١٠.

مناهج الدراسات العليا لمرحلة الكورسات في قسم هندسة الاتصالات وحسب نظام الكورسات

| First Semester | Hours / Week | Units |
|-------------------------------|--------------|-------|
| 1 - Antennas | 3 | 3 |
| 2 - Digital Signal Processing | 3 | 3 |
| 3 - Optical Communication | 2 | 2 |
| 4 - Engineering analysis | 2 | 2 |
| 5 - Selected Subject | 2 | 2 |
| Total | 12 | 12 |

| Second Semester | Hours / Week | Units |
|------------------------------|--------------|-------|
| 1- Digital Communication | 3 | 3 |
| 2 - Propagation of em. Waves | 3 | 3 |
| 3 - Mobile Communication | 2 | 2 |
| 4 - Selected Subject | 2 | 2 |
| 5 - Selected Subject | 2 | 2 |
| Total | 12 | 12 |

The selected subjects will be chosen from the following list:

- ١- Numerical techniques and optimization.
- ٢- RF and microwaves devices and circuits.
- ٣- Radar system.
- ٤- Microwaves system design.
- ٥- Data transmission and computer networks.
- ٦- Satellite communication.
- ٧- Communication engineering.

قسم الالكترونيك

تم افتتاح الدراسات العليا في قسم هندسة الالكترونيك عام ٢٠١٨ - ٢٠١٩

مناهج الدراسات العليا لمرحلة الكورسات في قسم هندسة الالكترونيك وحسب نظام الكورسات

Course Title : Electronics Engineering

| 1 st semester | Hours/Week | Units |
|---|------------|-----------|
| 1- Solid state electronics and IC fabrication | 2 | 2 |
| 2- Analog integrated circuits design | 2 | 2 |
| 3- digital signal processing | 2 | 2 |
| 4- English language | 2 | 2 |
| 5- optional | 2 | 2 |
| 6- optional | 2 | 2 |
| Total | 12 | 12 |

| 2 nd semester | Hours/Week | Units |
|--------------------------------------|------------|-----------|
| 1- Digital VLSI design | 2 | 2 |
| 2- Power electronics | 2 | 2 |
| 3- Advanced Microprocessors | 2 | 2 |
| ٤ - Advanced Engineering Mathematics | 2 | 2 |
| 5- optional | 2 | 2 |
| 6- optional | 2 | 2 |
| Total | 12 | 12 |

Optional Courses:

- 1- Digital System design.
- 2- Computer aided design
- 3- Electronics communication
- 4- Optical electronics
- 5- Intelligent Instrumentation

6- Modeling and Simulation

- 7- Data communications and computer networks
- 8- Electronic filters
- 9- Numerical analysis
- 10- Digital communications
- 11- Embedded system
- 12- Computer buses and interfacing
- 13-Soft computing.
- 14- Digital control

Solid state electronic and IC fabrication

- Crystal properties and structures - 1
- Energy bands and charge carriers - 2
- Quantum mechanics - 3
- Conductivity in materials - 4
- Phonon and electron phonon scattering - 5
- Optoelectronic devices - 6
- Magnetic resistance - 7
- Integrated circuit technology - 8
- Monolithic IC fabrication processes - 9
- Passive components fabrication - 10
- Bipolar devices fabrication - 11
- MOS technology - 1
- Design rules - 2
- Layout and routing - 3

قسم الحاسوب والمعلوماتية

تم افتتاح الدراسات العليا في قسم هندسة الحاسوب والمعلوماتية اعتباراً من العام الدراسي ٢٠١٢-٢٠١٣.

مناهج الدراسات العليا لمرحلة الكورسات في قسم هندسة الحاسوب والمعلوماتية

| First Semester | Units |
|--|-------|
| Advanced Engineering Analysis | 2 |
| Digital System Design | 3 |
| Data communication and Computer Networks | 3 |
| Optional Course-I | ٢ |
| Optional Course-II | ٢ |

| Second Semester | Units |
|------------------------------------|-------|
| Computer Buses and Interfacing | 3 |
| Advanced Digital Signal Processing | ٣ |
| Advanced Computer Architecture | 2 |
| Optional Course-III | ٢ |
| Optional Course-IV | ٢ |

| Optional Courses | Units |
|---------------------------------------|-------|
| and Robotics Digital Control | 2 |
| Advanced Microprocessor Systems | 2 |
| Real time systems | 2 |
| Computer Vision and Image Processing | 2 |
| Soft Computing | 2 |
| Advanced Data Structure and Algorithm | 2 |
| Embedded Systems | 2 |
| Computer Aided Design (CAD) | 2 |
| Management Information Systems | 2 |
| Digital Communication systems | 2 |
| Advanced operating systems | 2 |
| Modeling and Simulation | 2 |
| IC Design and Nano-Electronics | 2 |
| Information Theory and Coding | 2 |

