



EGYPTIAN NATIONAL UNIVERSITIES

مشروع وإنشاء الجامعات المصرية الأهلية

**جامعة العلمين الدولية**  
ALALAMEIN INTERNATIONAL UNIVERSITYAl Alamein  
International University

## Electronics Engineering & Communications Program

## برنامج هندسة الإلكترونيات والاتصالات

### Study Plan

### الخطة الدراسية

Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
1	MEC011	Engineering Drawing (1)	2	0	3	0	5	3	165	6
	PHY111	Physics I	2	2	0	0	4	3	150	6
	MAT111	Mathematics I	3	0	1	0	4	3	150	6
	MAT122	Statics	3	1	1	0	5	3	165	6
	CHE142	Engineering Chemistry	2	2	1	0	5	3	150	6
	UC1	University Requirement (1)	2	0	0	0	2	2	90	4
							<b>25</b>	<b>17</b>	<b>870</b>	<b>34</b>
2	MEC012	Engineering Drawing (2)	2	3	0	0	5	3	165	6
	MEC041	Production Engineering	2	3	0	0	5	3	165	6
	PHY211	Physics II	2	2	0	0	4	3	150	6
	MAT112	Mathematics II	3	0	1	0	4	3	150	6
	MAT121	Dynamics	3	1	1	0	5	3	165	6
	UC2	University Requirement (2)	2	0	0	0	2	2	90	4
							<b>25</b>	<b>17</b>	<b>885</b>	<b>34</b>
3	MEC151	Thermal Energy	2	0	2	0	4	3	150	6
	CSE014	Structured Programming	2	3	0	0	5	3	180	6



Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
	ELE111	Electrical Circuits	2	1	2	0	5	3	165	6
	MAT312	Differential Equations	2	0	2	0	4	3	150	6
	UC3	University Requirement (3)	2	0	0	0	2	2	90	4
							<b>20</b>	<b>14</b>	<b>735</b>	<b>28</b>
4	ELE112	Electronic circuits	2	1	2	0	5	3	165	6
	MEC255	Energy Resources	2	2	2	0	6	3	180	6
	ELE212	Electrical Measurements & Measuring Instruments	2	2	1	0	5	3	165	6
	PHY322	Solid state physics	2	2	0	0	4	3	150	6
	ELE211	Electromagnetic Fields	2	1	2	0	5	3	165	6
	UC4	University Requirement (4)	2	0	0	0	2	2	90	4
							<b>27</b>	<b>17</b>	<b>915</b>	<b>34</b>
5	MAT131	Probability and Statistics (1)	2	1	2	0	5	3	195	6
	ELE213	Industrial Electronics	2	1	2	0	5	3	165	6
	ELE234	Logic Design	2	1	2	0	5	3	165	6
	ELE271	Electrical Machines	2	1	2	0	5	3	165	6
	UC5	University Requirement (5)	2	0	0	0	2	2	90	4
							<b>22</b>	<b>14</b>	<b>780</b>	<b>28</b>
6	ELE313	Electromagnetic Waves	2	1	1	0	4	2	120	4
	ELE233	Control Engineering (Automatic Control Systems)	2	1	2	0	5	3	165	6
	ELE272	Electrical Power Engineering	2	1	2	0	5	3	165	6
	ELE321	Signals & Systems Fundamentals	2	0	2	0	4	3	150	6
	ELE335	Microprocessor-Based Automated Systems	2	2	2	0	6	3	180	6
	CSE132	Computer Architecture & Organization	2	1	2	0	5	3	165	6
							<b>29</b>	<b>17</b>	<b>945</b>	<b>34</b>
7	ELE432	Digital Signal Processing	2	1	2	0	5	3	165	6



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	ELE232	Fundamentals of Communication Systems (Analog Comm)	2	1	2	0	5	3	165	6
	ELE231	Introduction to Embedded Systems	2	1	2	0	5	3	165	6
	MAT411	Complex, Special Functions & Numerical Analysis	3	2	0	0	5	4	195	8
	UC6	University Requirement (6)	2	0	0	0	2	2	90	4
	UE2	Elective University Requirement (2)	2	0	0	0	2	2	90	4
							<b>24</b>	<b>17</b>	<b>870</b>	<b>34</b>
8	ELE312	Analog Circuits	2	2	2	0	6	3	180	6
	ELE314	Waveguides	2	1	2	0	5	3	165	6
	ELE337	Analog & Digital Communication Systems (Digital Comm)	2	1	2	0	5	3	165	6
	ELE391	Industrial Project	1	6	0	0	7	3	195	6
	E1	Elective Course (1)	3	1	1	0	5	3	165	6
	UE2	Elective University Requirement (2)	2	0	0	0	2	2	90	4
							<b>30</b>	<b>17</b>	<b>960</b>	<b>34</b>
9	ELE422	Antenna Engineering & Propagation	2	0	1	0	3	2	105	4
	ELE338	Wireless Communication Networks	2	1	2	0	5	3	165	6
	ELE488	Digital Integrated circuits	2	1	1	0	4	2	120	4
	ELE491	Graduation project 1	1	6	0	0	7	3	195	6
	E2	Elective Course (2)	3	1	1	0	5	3	165	6
	E3	Elective Course (3)	3	1	1	0	5	3	165	6
	UC7	University Requirement (7)	2	0	0	0	2	2	90	4
							<b>31</b>	<b>18</b>	<b>1005</b>	<b>36</b>
10	ELE492	Graduation project 2	1	6	0	0	7	3	195	6
	E4	Elective Course (4)	3	1	1	0	5	3	165	6



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Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
	E5	Elective Course (5)	3	1	1	0	5	3	165	6
	E6	Elective Course (6)	3	1	1	0	5	3	165	6
	ELE421	Optoelectronics	2	1	2	0	5	3	165	6
	UE3	Elective University Requirement (3)	2	0	0	0	2	2	90	4
							29	17	945	34
							262	165	8910	330

### Elective (E1)

- ELE235 Industrial Networks
- ELE311 Electrical Circuits and Machines (advanced)

### Elective (E2, E3, E4, E5, E6)

- ELE335 Microprocessor-Based Automated Systems
- ELE381 Power Electronics and motor drives
- ELE443 Modern Communication Systems
- ELE444 Satellite Communication Systems
- ELE445 Selected Topics in Communication Systems
- ELE456 Selected Topics in Signal Processing
- ELE472 Information Theory & Coding
- ELE487 Selected Topics in Telecommunication Networks
- ELE499 Special Topic
- CSE015 Object Oriented Programming
- CSE111 Data Structures
- CSE261 Computer Networks
- CSE233 Operating Systems