Ministry of Higher Education High Institute of Electronic Engineering Ministerial Resolution 5053 - 12/10/2016 K 10, Bilbies – 10th of Ramadan

usula taigetiff kanadi kaladi saadi iga lastate of Betroic Engening tabu وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	Mathematics (5)			
Course Code	BAS 311			
Academic Year	2022-2023			
Coordinator	Dr. Gamal El-Anani			
Teaching Staff	Dr. Gamal El-Anani			
Level	Level (3)			
Semester	First Term			
Number of Weekly	Lecture	2		
Contact Hours	Tutorial	2		
	Lab	0		
Department offering the	 Electronics ar 	nd Communications Engineering,		
program	 Computers and 	nd Systems Engineering,		
	Communicati	ions and Computer Engineering		
Department offering the	Basic Science			
course				
2- Aim of the course				
1. Understand the concept of complex function.				

- 2. Understand the methods to solve the numerical equations.
- 3. Understand the methods to solve the numerical equations of linear and non-linear equations.
- 4. Be familiar with the methods to solve the numerical differential equations.
- 5. Understand the methods to solve the numerical integral equations.
- 6. Be familiar with the orthogonal expansion.
- 3- Course related program competencies

	A.1. Identify, formulat problems by applying e and mathematics.	e, and solvengineerin	ve complex engine g fundamentals, b	eering basic science			
General	A.2. Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions						
Level A	A.3. Apply engineering design processes to produce cost- effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.						
	A.5. Practice research as an inherent part of I	technique earning.	s and methods of	investigation			
Level B - Speciality							
4- Course	Syllabus Power Serie	es Methods	- Functions of a co	mplex variable			
Contents	including Cauchy - F	Riemann co	nditions - Conforma	al mappings -			
	Complex series - Co	mplex integ	gral - Special function	ons - Numerical			
	analysis including th	e solution o	of nonlinear algebra	ic equations -			
	System of linear and	anonlinear	equations and ordir	hary differential			
	Fourier Analysis - O	rthogonal E	Expansions - Wavel	ets.			
# Topic		Lecture	Tutorial/Practical	No of hours			
Power Series Methods - Functions of a complex variable including Cauchy - Riemann conditions448							
Conforma series - Co	l mappings - Complex omplex integral	6	6	12			

Special functions - Nu analysis including the nonlinear algebraic ed System of linear and equations and ordinal equations - series sol differential equations	8	8	16			
Vector Analys		6	6	12		
Fourier Analysis - Ort Expansions - Wavelet	hogonal is	4	4	8		
Total sum		28	28	56		
5- Teaching and learning methods		 Lecture (online/in class) Discussion Tutorial Problem solving Brain storming Projects Self-learning Research and Reporting Computer Simulation Teamwork 				
6- Teaching and learning m	1. Additio	nal Tutorials				
disable students		 Online lectures and assignments Using as many audio/visual aids as possible. Providing extra opportunities for practice 				
7- Teaching and learning m capacity students	 Assign a student provide Repeat and tut Assign a perform 	a portion of the offi is and them with specific the explanation of orials. a teaching assistance nance	ce hours for those tailored tasks. some of the material ce to follow up their			
8- Teaching and learning m outstanding students	 Assign course project tasks to those students. Give them advanced extra-curriculum topics. Encourage them to take part in a pilot research and case studies. 					
9- Students assessment						
a- Assessment methods	 Mid Term E. Practical Exa Oral Examir Formative (Final Term E 	m Examination (written/ online) l Examination mination ve (quizzes- presentation -reports) rm Examination (written)				

b- Assessment schedule	- Exercise sheet/ Lab assignment :	Weekly
	- Quizz-1:	Week no. 5
	- Mid-Term exam:	Week no . 8
	- Quizz-2:	Week no. 12
	- Final – term examination:	Week no. 16
c- Weighting of	- Class tutorial and quizzes :	10 %
assessment	- Mid-term examination:	20 %
	- Final – term examination:	70 %
	Tota	100 %

10- List of text books and references:						
a- Course notes	There are lectures notes prepared in the form of a book					
	authorized by the department.					
b- Text books/ References	 Swokowski, E, Olinick ,M and Pence, D., Calculus, PWS Publishing Company - Boston, 1994. 					
	 Mary Attenborough, Engineering Mathematics, McGraw - HILL Book Company Europe, 1994. 					
	 Anthony croft, Robert Davison, Engineering Mathematics A modern Foundation for Electrical Electronic & Control Engineering 					
	Addison - Wesley - Publishing Company, 1992.					
c- Periodicals, Web sites	Web Sites related to Mathematics and Mathematical engineering as:					
etc	www.math.hmc.edu,					
	www.tutorial.math.lamar.edu,					
	www.web.mit.edu					

11-Course contents – Course related program competencies						
		Lev	el A			
	A.1	A.2	A.3	A.5		
Power Series Methods - Functions of a complex variable including Cauchy - Riemann conditions	V					
Conformal mappings - Complex series - Complex integral	V	V		\checkmark		
Special functions - Numerical analysis including the solution of nonlinear algebraic equations - System of linear and nonlinear equations and ordinary differential equations -		\checkmark	\checkmark			

series solution of differential equations				
Vector Analys	\checkmark	\checkmark	\checkmark	
Fourier Analysis - Orthogonal Expansions - Wavelets			\checkmark	

12-Teaching and learning methods - Course related program competencies						
		Level A				
	A.1	A.2	A.3	A.5		
Lecture (online/in class)	V	1	\checkmark	\checkmark		
Discussion	V	\checkmark	\checkmark	\checkmark		
Tutorial	V	\checkmark	\checkmark	\checkmark		
Problem solving	1	\checkmark	\checkmark	\checkmark		
Brain storming	V	\checkmark	\checkmark	\checkmark		
Projects	V	\checkmark	\checkmark	\checkmark		
Self-learning		\checkmark				
Research and Reporting			\checkmark			
Computer Simulation						
Teamwork						

13- Assessment methods - Course related program competencies						
Assessment methods Course related program comptencies						
			Leve	el A		
		A.1	A.2	A.3	A.5	
1. Mid Term Examination (written/ online)		1	1	V	1	
2. Practical Examination						
3. Oral Examination						
4. Formative (quizzes- presentation -reports)			1	V	1	
5. Final Term Examination (written		\checkmark	\checkmark	V	\checkmark	



Dr. Gamal El-Anany



K 10, Bilbies – 10th of Ramadan



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Course Specification

1- Basic Information

Course Title	Environmental Im	pacts of Projects			
Course Code	CIW 312				
Academic Year	2022-2023				
Coordinator	Dr/ aya salem				
Teaching Staff	Dr/ aya salem				
Level	Level (3)				
Semester	First Term				
Number of Weekly	Lecture	1			
Contact Hours	Tutorial	0			
	Lab	0			
Department offering the	 Electronics and Communications Engineering, 				
program	 Computers at 	nd Systems Engineering			
	• Computers and systems engineering,				
	Communicat	ions and Computer Engineering			
Department offering the	Electronics Engine	ering and Electrical			
course	Communication				
	Computers and Syste	ems Engineering			
2- Aim of the course					
 introduce the concepts, procedures and methodology of Environmental Impact Assessment (EIA). 					
2. develop a critical awaren	2. develop a critical awareness of factors which affect the use of EIA as part of project.				
3. management in the legis	e legislative and regulatory context of recently.				

- 4. industrialized or less industrialized countries.
- 5. expose the students to the need for environmental impact assessments and how to prepare the various documents required by state and federal regulations.

Level A – General	 A.5 Practice research techniques and methods of investigation as an inherent part of learning. A.7 Function efficiently as an individual and as a member of multi-disciplinary and multicultural teams. A.8 Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools A.9 Use creative, innovative and flexible thinking and acquire entrepreneurial and leadership skills to anticipate and respond to new situations. A.10 Acquire and apply new knowledge; and practice self, lifelong and other learning strategies. 							
Level B - Speciality								
4- Course Contents	Availability of natural resources, Natural cycles for some basic elements (carbon, oxygen, nitrogen, sulfur, phosphorous). Conflicts between developments, Economics and environments. Defining emissions sources, Impacts, Standards and precautions. Water, Air and soil pollution and measurements. Historical development for recognizing the need for environmental impact assessment. Assessing the impacts on health, Social, Cultural and economic activities. Procedures of the environmental impact assessment: Screening, Scoping, Defining impacts, Comparing alternatives, Plans for mitigation and alleviation, Environmental auditing. Public participation. Environmental impact statement and reporting, Contents and forms. Examples for assessing the impacts of water resources projects on the environment and impacts of different activities on the water environment.							
# Topic		Lecture	Tutorial/Practical	No of hours				
Availability of resources, N some basic of oxygen, nitr	of natural latural cycles for elements (carbon, ogen, sulfur,	2	0	2				

phosphorous).						
Conflicts between developments, Economics environments.	and	3 0 3				
Defining emissions source Impacts, Standards and precautions. Water, Air ar pollution and measureme	s, id soil nts.	4 0 4				
Historical development fo recognizing the need for environmental impact assessment.	r	3 0 3				
Assessing the impacts on health, Social, Cultural and economic activities.	ł	2	0	2		
Total sum		14	0	14		
5- Teaching and learning methods		 Lecture (online/in class) Discussion brain storming Projects Self-learning Research and Reporting Computer Simulation Teamwork 				
6- Teaching and learning	te	1. Additional T 2. Online lectu	utorials and assignments			
	11.5	3. Using as ma	ny audio/visual aids as	possible.		
7- Teaching and learning		4. Providing ex	tra opportunities for pr	ractice		
methods for low capacity		and	tion of the office hours			
students		2. provide the	m with specific tailored	tasks.		
		performance				
8- Teaching and learning		1. Assign course project tasks to those students.				
methods for outstanding		 Give them advanced extra-curriculum topics. Encourage them to take part in a pilot research and case. 				
students		studies.				
9- Students assessment						
a- Assessment	1. N	lid Term Examina	tion (written/ online)			
methods	2. P	ractical Examinati	on			
	3.0 4 ⊑⁄	ral Examination	- presentation -reports)			
	ч . г(presentation -reports)			

	5. Final Term Examination (written)
b- Assessment schedule	- Quizz-1:	Week no. 5
	- Mid-Term exam:	Week no . 8
	- Quizz-2:	Week no. 12
	- Final – term examination:	Week no. 16
c- Weighting of	- quizzes :	15 %
assessment	- Mid-term examination:	15 %
	- Final – term examination:	70 %
	Total	100 %
10- List of text books and re	ferences:	
a- Course notes	There are lectures notes prepared	d in the form of a book
	authorized by the department.	
b- Text books/ References	 John Glasson, Riki Therivel 	and Andrew Chadwick,
	Introduction to environme	ntal
	impact assessment, Routledge, 200)5
c- Periodicals, Web sites		
etc		

11-Course contents – Course related program competencies									
	Level A								
	A.5	A.7	A.8	A.9	A.1	0			
Availability of natural resources, Natural cycles for some basic elements (carbon, oxygen, nitrogen, sulfur, phosphorous).	V	1							
Conflicts between developments, Economics and environments.	1	\checkmark							
Defining emissions sources, Impacts, Standards and precautions. Water, Air and soil pollution and measurements.		1	V						
Historical development for recognizing the need for environmental impact assessment.			V	1					
Assessing the impacts on health, Social, Cultural and economic activities.				1	V				

	Le	evel A			
	A.5	A.7	A.8	A.9	A.10
Lecture (online/in class)	1				
Discussion	1	\checkmark			
Tutorial	1	\checkmark	1	1	
Problem solving		\checkmark		\checkmark	
Brain storming			\checkmark		
Projects			\checkmark	\checkmark	
Self-learning					\checkmark
Research and Reporting			\checkmark		1
Computer Simulation				\checkmark	
Teamwork					1

13- Assessment methods - Course related program competencies					
Assessment methods	Course related program comptencies				
	Level A				
	A.5	A.7	A.8	A.9	A.10
1. Mid Term Examination (written/ online)	\checkmark	\checkmark			
2. Practical Examination		\checkmark			
3. Oral Examination		\checkmark	\checkmark		
4. Formative (quizzes- presentation -reports)			\checkmark	\checkmark	
5. Final Term Examination (written				\checkmark	\checkmark

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Authorized from board of the department at 1/9/2022 Course coordinator:



Dr./ aya .m. salem

K 10, Bilbies – 10th of Ramadan



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Course Specification

1- Basic Information

Course Title	Electronic Circuit	8
Course Code	ECE 313	
Academic Year	2022-2023	
Coordinator	Dr. Bassam A. Hema	d
Teaching Staff	Dr. Bassam A. Hema	d
Level	Level (3)	
Semester	1^{st}	
Number of Weekly	Lecture	2
Contact Hours	Tutorial	1
	Lab	1
Department offering the	 Electronics ar 	nd Communications Engineering,
program		
Department offering the	Electronics Engine	ering and Electrical
course	Communication	

2- Aim of the course

- 1. Understand the sources and signals, noise and distortion, bode plots
- 2. Understand the operational amplifies linear and non-linear applications
- 3. Understand the Active filters, and BJT and MOS amplifiers
- 4. Define the frequency response of Op-Amps
- 5. Define the cascade and cascade amplifiers
- 6. Know the differential amplifiers current sources multi-stage amplifiers

Understand the power amplifiers.

Level A – General	 A.1 Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science, and mathematics. A.2 Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions A.3 Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development A.4 Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues, and risk management principles. 									
Level B - Speciality	 B.2 Design, model a component fo optimize this of B.3 Design and in in electrical/el professional to B.4 Estimate and m system and cirr for a specific a B.5 Adopt suitable build, operate systems, and s 	 B.2 Design, model and analyze an electrical/electronic/digital system or component for a specific application; and identify the tools required to optimize this design. B.3 Design and implement elements, modules, sub-systems, or systems in electrical/electronic/digital engineering using technological and professional tools. B.4 Estimate and measure the performance of an electrical / electronic/digital system and circuit under specific input excitation and evaluate its suitability for a specific application. B.5 Adopt suitable national and international standards and codes to design, build, operate, inspect, and maintain electrical/electronic/digital equipment, 								
4- Course Contents	Sources and signa amplifies, basic ci linear applications BJT amplifiers, C Feedback, stabilit Differential amplif amplifiers.	Ils – Noise and rcuits, frequenc , Op-Amp non- E, CB, CC. M y, compensatio Ters – Current s	d distortion – Bode y response of Op-An idealities – Active fi IOS transistor single n- Cascade and ca sources – Multi-stage	plots – Operational nps, linear and non- ilters – Single stage stage amplifiers – scade amplifiers – amplifiers – Power						
# Topic		Lecture	Tutorial/Practical	No of hours						
Sources an and distort Operationa circuits,	d signals – Noise ion – Bode plots – 1 amplifies, basic	4	4	8						
frequency	response of Op-	6	<mark>6</mark>	12						

Amps, linear and non-linear applications, Op-Amp non-						
idealities – Active filters						
Single stage BJT amplifiers, CE, CB, CC.	8	8 8				
MOS transistor single stage amplifiers – Feedback, stability, compensation	6	6	12			
Cascade and cascade amplifiers – Differential amplifiers – Current sources – Multi-stage amplifiers – Power amplifiers.	4	4	8			
Total sum	28	28	56			
5- Teaching and learning methods	 Lecture (onl Discussion Tutorial Problem sol Brain storm Projects Self-learning Research an Computer S Teamwork 	ine/in class) ving ing g d Reporting imulation				
6- Teaching and learning	1. Additional T	utorials				
methods for disable students	3. Using as ma	ny audio/visual aids as i	oossible.			
	4. Providing ex	tra opportunities for pr	actice			
7- Teaching and learning	1. Assign a por	tion of the office hours	for those students			
methods for low capacity	and					
students	2. provide the	m with specific tailored	tasks. the material and			
	tutorials.					
	4. Assign a tea performanc	ching assistance to follo e	w up their			
8- Teaching and learning	1. Assign cours	se project tasks to those	students.			
methods for outstanding	2. Give them advanced extra-curriculum topics.					
students	studies.	nem to take part in a pr				
9- Students assessment						
a- Assessment 1. N	1id Term Examina	tion (written/ online)				
methods 2. P	ractical Examinati	on				

	2 Oral Examination					
	5. Utal Examination					
	4. Formative (quizzes- presentation	h -reports)				
	5. Final Term Examination (written)				
b- Assessment schedule	 Exercise sheet/ Lab assignment : 	Weekly				
	- Quizz-1:	Week no. 5				
	- Mid-Term exam:	Week no . 8				
	- Quizz-2:	Week no. 12				
	- Final – term examination:	Week no. 16				
c- Weighting of	- Class tutorial and quizzes :	% 20				
assessment	- Mid-term examination:	% 20				
	- Final – term examination:	% 60				
	Total	100 %				
10- List of text books and re	ferences:					
a- Course notes	There are lectures notes prepared in	the form of a slides.				
b- Text books/ References	 Richard C. Jaeger, Travis N. E circuit design, (4th edition, 20 	Blalock, Microelectronic 10)				
	 A. Sedra, K. Smith, Microelectroni 2004 	c Circuits, Oxford Press, 5th. Ed.,				
c- Periodicals, Web sites etc						

11-Course contents – Course related program competencies										
	Level A				Leve					
	A.1	A.2	A.3	A.4	B.2	B.3	B.4	B.5		
Sources and signals – Noise and distortion – Bode plots – Operational amplifies, basic circuits,	1	1								
frequency response of Op-Amps, linear and non- linear applications, Op-Amp non-idealities – Active filters	1	1	1							
Single stage BJT amplifiers, CE, CB, CC.		V	V	V	1	V	\checkmark	1		
MOS transistor single stage amplifiers – Feedback,	\checkmark		\checkmark				\checkmark	\checkmark		

stability, compensation						
Cascade and cascade amplifiers – Differential amplifiers – Current sources – Multi-stage amplifiers – Power amplifiers.		V	1	~	1	~

12-Teaching and learning methods - Course related program competencies										
	Level	Level A				Level B				
	A.1	A.2	A.3	A.4	B.2	B.3	B.4	B.5		
Lecture (online/in class)										
Discussion	1									
Tutorial	V	1	1	\checkmark	\checkmark	1	1	\checkmark		
Problem solving	\checkmark	1	1	\checkmark	\checkmark	1				
Brain storming		1		\checkmark	\checkmark	1				
Projects		1			\checkmark	1	\checkmark	\checkmark		
Self-learning		1			\checkmark	1	1	\checkmark		
Research and Reporting								\checkmark		
Computer Simulation							1			
Teamwork							1	1		

13- Assessment methods - Course related program competencies										
Assessment methods	Course related program comptencies									
		Level	Α			Leve	B			
		A.1	A.2	A.3	A.4	B.2	B.3	B.4	B.5	
1. Mid Term Examination (written/ online)		V	1	V	1	1	\checkmark			
2. Practical Examination										
3. Oral Examination										
4. Formative (quizzes- presentation -report	s)	V	V	\checkmark	\checkmark	\checkmark	\checkmark			
5. Final Term Examination (written		\checkmark	\checkmark	1	\checkmark	\checkmark	\checkmark			

Authorized from board of the department at 1/9/2022 Course coordinator:

an



Dr Bassam A. Hemad

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	Electrical Commu	Electrical Communications				
Course Code	ECE314					
Academic Year	2022-2023					
Coordinator	Dr. Amira A. Mahmo	bud				
Teaching Staff	Dr. Amira A. Mahmo	bud				
Level	Level (3)					
Semester	First Term					
Number of Weekly	Lecture	2				
Contact Hours	Tutorial	2				
	Lab	-				
Department offering the	Electronics a	nd Communications Engineering,				
program	Computers a	nd Systems Engineering,				
	 Communicat 	ions and Computer Engineering				
Department offering the	Electronics Engineering and Electrical					
course	Communication					
2- Aim of the course						

- 1. To introduce the communication system components and the need of modulation.
- 2. To explain the concepts of analog modulation and its different types.
- 3. To describe the behavior of analog communications in the presence of noise and the basics of analog pulse modulation techniques.
- 4. To demonstrate various digital modulation and demodulation techniques.
- 5. To explain the concepts of multiple access techniques.

Level A – General	 A.1 Identify, formulate, and so engineering fundamentals, A.3 Apply engineering design p meet specified needs with a environmental, ethical, and within the principles and co A.4 Utilize contemporary techn guidelines, health and sa risk management principles 	 A.1 identity, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science, and mathematics. A.3 Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development A.4 Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues, and risk management principles. 							
A- Course Contents	 B.2 Design, model and analyze an electrical/electronic/digital system or component for a specific application; and identify the tools required to optimize this design. B.4 Estimate and measure the performance of an electrical / electronic/digital system and circuit under specific input excitation and evaluate its suitability for a specific application. B.5 Adopt suitable national and international standards and codes to design, build, operate, inspect, and maintain electrical/electronic/digital equipment, systems, and services. Communication system elements, Overview of current communication systems. Communication channels properties. Basics of analog communication: amplitude, angle, frequency, and analog pulse modulation; frequency division multiplexing. Basics of digital communication: sampling, quantization, pulse code modulation, Delta Modulation, Differential PCM, time division multiplexing, binary signal 								
	techniques.								
# Topic		Lecture	Tutorial/Practical	No of hours					
Communica of current o Communica	ation system elements, Overview communication systems. ation channels properties.	4	4	8					
Basics of analog communication: amplitude, angle, frequency, and analog pulse6612modulation6612									
frequency o	livision multiplexing	2	2	4					
Basics of di	gital communication: sampling,								
quantizatio Modulatior	n, pulse code modulation, Delta n, Differential PCM	6	6	12					
time divisio	n multiplexing, binary signal	4	4	8					

formats							
Digital carrier modulation QAM. Multiple - access te	: ASK, PSK, FSK and chniques.	6	6	12			
Total sum		28	28	56			
5- Teaching and learning m	 Lecture (online/in class) Discussion Tutorial Problem solving Brain storming Projects Self-learning Research and Reporting Computer Simulation Teamwork 						
6- Teaching and learning m students	 Additional Tutorials Online lectures and assignments Using as many audio/visual aids as possible. Providing extra opportunities for practice 						
 7- Teaching and learning m capacity students 8- Teaching and learning m outstanding students 	 Assign a portion of the office hours for those students. Provide them with specific tailored tasks. Repeat the explanation of some of the material and tutorials. Assign a teaching assistance to follow up their performance Assign course project tasks to those students. 						
		 Encourage them to take part in a pilot research and case studies 					
9- Students assessment		researe					
a- Assessment methods	 Mid Term Exar Formative (qui Final Term Exa 	nination (wri zzes- presen mination (wr	tten/ online) tation -reports) 'itten)				
b- Assessment schedule	- Exercise sheet/ Lat	o assignment	: Weekly				
	- Quizz-1:		Week no. 5				
	- Mid-Term exam:	- Mid-Term exam: Week no. 8					
	- Quizz-2: Week no. 12						
	- Final – term exami	- Final – term examination: Week no. 16					
c- Weighting of	- Class tutorial and c	quizzes:	10 %				
assessment	- Mid-term examina	tion:	20 %	,)			

	- Final – term examination: 70 %							
	Total 100 %							
10- List of text books and references:								
a- Course notes	There are lectures notes prepared in the form of a pdf file.							
b- Text books/ References	 Lathi, B. P. (Bhagwandas Pannalal) Modern digital and analog communication systems/ B. P. Lathi, Zhi Ding4th ed, 2009. Simon Haykin and Michael Moher, Introduction to Analog & Digital Communications, Second Edition, John Wiley & Sons, 2006 Signals and Systems with MATLAB Computing and Simulink Modeling, Fifth Edition by Karris, Steven T. and Steven T. (Mar 19, 2012) Roger L. Freeman, Fundamentals of Telecommunications, (Aug 12, 2013) 							
c- Periodicals, Web sites etc	Web Sites related to Electrical Communications as: https://en.wikipedia.org/wiki/							

11-Course contents – Course related program competencies							
	Level A			Level			
	A.1	A.3	A.4	B.2	B.4	B.5	
Communication system elements, Overview of current communication systems. Communication channels properties.	1	V			V	1	
Basics of analog communication: amplitude, angle, frequency, and analog pulse modulation	\checkmark	1		1	V	1	
frequency division multiplexing	\checkmark	1	1	1	\checkmark	\checkmark	
Basics of digital communication: sampling, quantization, pulse code modulation, Delta Modulation, Differential PCM	V	1	\checkmark	\checkmark	\checkmark	\checkmark	
Time division multiplexing, binary signal formats	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	
Digital carrier modulation: ASK, PSK, FSK and QAM. Multiple - access techniques.	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	1	

12-Teaching and learning methods - Course related program competencies

	Level A			Level B		
	A.1	A.3	A.4	B.2	B.4	B.5
Lecture (online/in class)	\checkmark					
Discussion	V	V	1	\checkmark	\checkmark	\checkmark
Tutorial	V	V	1	\checkmark		
Problem solving			1	\checkmark		
Brain storming				\checkmark	\checkmark	\checkmark
Projects				\checkmark	\checkmark	\checkmark
Self-learning						\checkmark
Research and Reporting					\checkmark	
Computer Simulation					$\overline{\mathbf{V}}$	\checkmark
Teamwork						

13- Assessment methods - Course related program competencies								
Assessment methods	Course related program comptencies							
		Level	Α		Leve	В		
		A.1	A.3	A.4	B.2	B.4	B.5	
1. Mid Term Examination (written/ online)		\checkmark	\checkmark	1	\checkmark	\checkmark		
2. Formative (quizzes- presentation -report	s)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
3. Final Term Examination (written					\checkmark	\checkmark		

Authorized from board of the department at 1/9/2022 Course coordinator:

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Dr. Amira A. Mahmoud

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course T	itle	Computer Networks					
Course C	ode	CSE 315					
Academi	c Year	2022-2023					
Coordina	tor	Dr. Elhossiny Ibrahim Elhossiny					
Teaching	Staff	Dr. Elhossiny Ibrahim Elhossiny					
Level		Level (3)					
Semester		First Term					
Number	of Weekly	Lecture 2					
Contact 1	Hours	Tutorial 1					
		Lab 1					
Departme	nt offering the	Electronics and Communications	Engineering,				
program		Computers and Systems Enginee	ring,				
		Communications and Computer Engineering					
Departme	nt offering the						
course	0						
2- Aim of the	e course						
1. Underst	and the Data Comm	unication.					
2. Learn th	e computer network	s basics, components, and Media Ac	cess Control.				
3. Know th	ne Different kinds o	f networks.					
4. Underst	and the networking	and internetworking technologies.					
5. Demons	trate the up-to-date	information on computer networks.					
3- Course re	lated program compe	tencies					
	A4. Utilize conten	porary technologies, codes of practic	e and standards,				
eral	quality guidelines,	health and safety requirements, envir	conmental issues and				
ene	risk management p	principles.					
49. Use creative, innovative and flexible thinking and acquire							
A	entrepreneurial and	d leadership skills to anticipate and re	spond to new				
eve	situations.		10.110.1				
Ľ	A10. Acquire and apply new knowledge; and practice self, lifelong, and other						
	learning strategies						

evel B - Speciality	 B4. Estimate and measure the performance of an electrical/electronic/digital system and circuit under specific input excitation, and evaluate its suitability for a specific application. B5. Adopt suitable national and international standards and codes to: design, build, operate, inspect and maintain electrical/electronic/digital equipment, systems and services 								
4- Course Contents	Network layers(Physical Network layer – Transpo TCP/IP Network Protoco management, congestion, Networks, other network	layer – Da rt layer – A l, routing 1 , Examples protocols	ta Link layer – MAC Application layer – Se Protocols, Network Do s of LAN's and WAN'	sub-layer - curity layer), esign, Network s, High Speed					
# Topic	Lecture Tutorial/Practical No of hours								
Network Data Link Network la Applicatio	layers(Physical layer – layer – MAC sub-layer - ayer – Transport layer – n layer – Security layer)	8	8	16					
TCP/IP Ne	etwork Protocol,	6	6	12					
Routing Protocols		6	6	12					
Network D manageme	Design, Network nt	4	4	8					
Congestion and WAN' other netw	n, Examples of LAN's s, High Speed Networks, ork protocols.	4	4	8					
Total sum		28	28	56					
5- Teaching	and learning methods	 Lecture (online/in class) Discussion Tutorial Problem solving Brain storming Projects Self-learning Research and Reporting Computer Simulation Teamwork 							
6- Teaching disable stud	and learning methods for ents	 Addit Online Using Provid 	ional Tutorials e lectures and assignme as many audio/visual ai ding extra opportunities	nts ds as possible. for practice					
7- Teaching	and learning methods for	1. Assign stude	n a portion of the office nts and	hours for those					

		1					
low capacity students		2. Provide them with specific failored tasks. 3. Repeat the explanation of some of the material					
		5.	and tutorials				
		4.	4. Assign a teaching assistance to follow up their				
			performance				
8. Teaching and learning m	athods for	1.	Assign course project tasks to those students.				
outstanding students	eurousion	2.	Give them advanced extra-curriculum topics.				
outstanding students		3.	Encourage them to take part in a pilot research and case studies.				
9- Students assessment		<u> </u>					
a- Assessment	1. Mid Terr	m Examination (written/ online)					
methods	2. Practical	Exa	mination				
	3. Oral Exa	mina	ation				
	4. Formativ	ve (q	uizzes- presentation -reports)				
	5. Final Ter	m E	xamination (written)				
b- Assessment schedule	- Exercise she	et/ L	.ab assignment : Weekly				
	- Quizz-1:		Week no. 5				
	- Mid-Term e	xam	: Week no. 8				
	- Quizz-2:		Week no. 12				
	- Final – term	exai	mination: Week no. 16				
c-Weighting of	- Class tutoria	al and	d quizzes : %				
assessment	- Mid-term ex	kami	nation: %				
	- Final – term	exai	nination: %				
			Total 100 %				
10- List of text books and re	ferences:						
a- Course notes	There are	e lec	tures notes prepared in the form of a book				
b- Text books/ References	[1] Willian	n St	alling, "Data and Computer Communications",				
	10th Editio	on, 2	013.				
	[2] Andrey	NS.	Tanenbaum and David J. Wetherall,				
	"Compute	er No	etworks", 5th Edition, Oct. 2010				
c- Periodicals, Web sites	1] Universi	ty of	t Washington Computer Networks course at				
etc	Coursera h	tps:/	www.coursera.org/course/comnetworks				
	HYPERLIN	VK "	http://ocw.mit.edu/courses/electrical-				
	engineering	gand	-computer-science/6-829-computer-networks-fall-				
	2002/"http:	//ocv	w.mit.edu/courses/electrical-engineering-				
	andcomput	er-sc	cience/6.8				

11-Course ccontents – Course related program competencies								
		Level A	4	Level B				
	A.4	A.9	A.10	B.4	B.5			
Network layers(Physical layer – Data Link layer – MAC								
sublayer - Network layer – Transport layer – Application				\checkmark				
layer – Security layer)								
TCP/IP Network Protocol,	\checkmark	\checkmark			\checkmark			
Routing Protocols	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Network Design, Network management	\checkmark	\checkmark	\checkmark		\checkmark			
Congestion, Examples of LAN's and WAN's, High Speed Networks, other network protocols.	\checkmark	\checkmark		\checkmark	\checkmark			

12-Teaching and learning methods - Course related program competencies							
	Level A			Level B			
	A.4	A.9	A.10	B.4	B.5		
Lecture (online/in class)	\checkmark		\checkmark				
Discussion	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Tutorial	\checkmark		\checkmark				
Problem solving	\checkmark		\checkmark				
Brain storming	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Projects		\checkmark		\checkmark	\checkmark		
Self-learning	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Research and Reporting	\checkmark		\checkmark		\checkmark		
Computer Simulation		\checkmark		\checkmark			
Teamwork	√	\checkmark	\checkmark	\checkmark	\checkmark		

13- Assessment methods - Course related program competencies								
Assessment methods	Course related program competencies							
	Level A Level				el B			
	A.4	A.9	A.10	B.4	B.5			
1. Mid Term Examination (written/ online)	1		\checkmark					
2. Practical Examination		\checkmark	\checkmark	\checkmark	\checkmark			
3. Oral Examination	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
4. Formative (quizzes- presentation -reports)			\checkmark					
5. Final Term Examination (written)			\checkmark					

Authorized from board of the department at 1/9/2022

Course coordinator:

9-test



Dr. Elhossiny Ibrahim Elhossiny

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

Course Title	Automatic Control				
Commo Codo	CSF 316				
Course Code	C3E 310				
Academic Year	2022-2023				
Coordinator	Doctor. Soheir metwaly	afifi			
Teaching Staff	Doctor. Soheir metwaly	afifi			
Level	Level (3)				
Semester	First Term				
Number of Weekly	Lecture	2			
Contact Hours	Tutorial	2			
	Lab	0			
Department offering the	 Communicat 	ions and Computer Engineering			
program					
P0					
Department offering the	Communica	ations and Computer Engineering			
course					
2- Aim of the course					
1. Learn the transient response and steady-state analyses of control systems					

1- Basic Information

3. Learn the basic and modified PID controllers. Computational approaches for obtaining optimal parameter values for PID controllers are discussed in detail, particularly with respect to satisfying requirements for step-response characteristics.

2. Learn the Routh's stability criterion for stability analysis of control

- 4. Learn the root-locus analysis and design of control systems, including positive feedback systems and conditionally stable systems Plotting root loci
- 5. The Bode diagram approach to the design of lead, lag, and lag-lead compensators is discussed.

3- Course related program competencies

systems

A.1. Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science and mathematics. A.2. Demonstrate principles of design including elements design, process and/or a system related to specific disciplines.

A.2. Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.

A3. Apply engineering design processes to produce costeffective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.

A4. Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues and risk management principles.

A.5 Practice research techniques and methods of investigation as an inherent part of learning.

	B1 Select. model and analyze electrical power systems
	applicable to the specific discipline by applying the concepts
	of: generation, transmission and distribution of electrical power systems.
	B.2 Design, model and analyze an electrical/electronic/digital system or component for a specific application; and identify the tools required to optimize this design.
B - Speciality	B.3 Design and implement: elements, modules, sub-systems or systems in electrical/electronic/digital engineering using technological and professional tools.
Level	B4. Estimate and measure the performance of an electrical/electronic/digital system and circuit under specific input excitation, and evaluate its suitability for a specific application.
	B5. Adopt suitable national and international standards and codes to: design, build, operate, inspect and maintain electrical/electronic/digital equipment, systems and services.
4- Course	Transient and steady state response analysis of continuous time
Contents	feedback control systems; Routh's stability criterion; Error analysis
	of stable control systems; Effects of integral and derivative control actions; Control systems
	analysis and design
	root locus method; PID controllers; Control systems analysis and design by
	frequency response method; Bode Diagrams; Relative stability analysis; Lead, Lag, Lag - Lead compensation
	الاستجابة الموقفة والحالة التابية للضم التحدم دات التعدية الراجعة في الرمن المستمر – اختيار
	الاستقرار بطريقة راوث – تحليل الخطأ لنظم التحكم المستقرة – تأثير التحكم باستخدام

والتفاضل – التحليل والتصميم لنظم التحكم باستخدام طريقة المحل ادوات التكامل الهندسي للحذور – المتحكمات المتناسبة والتكاملية والتفاضلية – تحليل وتصميم النظم باستخدام طريقة الاستجابة الترددية – اشكال بود – الاستقرار النسبي – التعويض باستخدام عناصر التقدم والتأخر

# Topic	Lecture	Tutorial/Practical	No of hours
Introduction to Control Systems	2	2	4
Transient and Steady-State Response Analyses	4	4	8
PID Controllers and Modified PID Controllers	4	4	8
STABILITY OF LINEAR FEEDBACK SYSTEMS	4	4	8
Steady state errors	8	8	16
Root locus	4	4	8
Bode plote	2	2	4
Total sum	28	28	56
5- Teaching and learning methods	 Lectures Tutorials. Homework I Reports Assign a port 	Exercises	r those students
for disable students	 Give them sp Give them sp Repeat the extutorials. Assign a tead this group of 	specific tasks and evaluate explanation of some of the ching assistance to follow students.	them in it. course material and up the performance of
7- Teaching and learning methods for low capacity students	 Assign a por and provide the Repeat the tutorials. Assign a tea performance 	tion of the office hours m with specific tailored explanation of some of ching assistance to follo e	for those students tasks. the material and ow up their
8- Teaching and learning methods for outstanding students	 Assign cours Give them a Encourage t studies. 	se project tasks to those dvanced extra-curricult hem to take part in a pi	e students. um topics. lot research and case

9- Students assessment	
a- Assessment	1. Mid Term Examination (written/ online)
methods	2. Oral Examination
	3. Formative (quizzes- presentation -reports)
	4. Final Term Examination (written)
b- Assessment schedule	- Exercise sheet/ Lab assignment : Weekly
	- Quizz-1: Week no. 5
	- Mid-Term exam: Week no . 8
	- Quizz-2: Week no. 12
	- Final – term examination: Week no. 16
c- Weighting of assessment	- Class tutorial and quizzes : 10 %
	- Mid-term examination: 20 %
	- Final – term examination: 70 %
	Total 100 %
10- List of text books and refe	erences:
a- Course notes	There are lectures notes prepared in the form of a book authorized by the department
b- Text books/ References	K. Ogata, Modern Control Engineering, Pearson, Modern control systems, Richard C, Dorf, Robert H, Bishop
c- Periodicals, Web sites etc	

11-Course contents – Course related program competencies										
	Leve	IA					Leve	l B		
	A.1	A2	A.3	A.4	A5	B1	B.2	B.3	B.4	B.5
Introduction to Control Systems	\checkmark	\checkmark				V				
Transient and Steady-State Response Analyses	1		1				\checkmark	\checkmark	V	\checkmark
PID Controllers and Modified PID Controllers		V	V	V	1				V	1
STABILITY OF LINEAR FEEDBACK SYSTEMS	\checkmark		1	\checkmark				\checkmark	\checkmark	
Steady state errors			1	\checkmark	1		\checkmark		\checkmark	V

Root locus		\checkmark	\checkmark					V	1
Bode plote	V	\checkmark		\checkmark		1	\checkmark		

12-Teaching and learning methods - Course related pr	ogram	comp	etenci	es			
	Level	Α		Level	В		
	A.1	A.3	A.4	B.2	B.3	B.4	B.5
Lecture (online/in class)	1						
Discussion	1	V	\checkmark	V	V	\checkmark	1
Tutorial	\checkmark	V	\checkmark	V	V		
Problem solving			\checkmark	V	V		
Brain storming				\checkmark	V	\checkmark	V
Projects				V	V	\checkmark	1
Self-learning							V
Research and Reporting						\checkmark	
Computer Simulation						\checkmark	1
Teamwork							

13- Assessment methods - Course related prog	gram compete	ncies						
Assessment methods	Course relate	ed prog	gram co	ompter	ncies			
	Level A Level B							
		A.1	A.3	A.4	B.2	B.3	B.4	B.5
1. Mid Term Examination (written/ online)		V	\checkmark	1	\checkmark	1		
2. Practical Examination								
3. Oral Examination								
4. Formative (quizzes- presentation -report	s)	V	1	1	\checkmark	1		
5. Final Term Examination (written		V	\checkmark	\checkmark	\checkmark	\checkmark		

Authorized from board of the department at 1/9/2022 Course coordinator:

Doctor. Soheir afifi

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K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	Microwave Engin	eering		
Course Code	ECE317			
Academic Year	2022-2023			
Coordinator	Dr. Amira A. Mahmo	bud		
Teaching Staff	Dr. Amira A. Mahmo	oud		
Level	Level (3)			
Semester	First Term			
Number of Weekly	Lecture	2		
Contact Hours	Tutorial	2		
	Lab	-		
Department offering the	 Electronics are 	nd Communications Engineering,		
program	Communicat	ions and Computer Engineering		
	communicat			
Department offering the	Electronics Engine	ering and Electrical		
course	Communication			
2- Aim of the course				

- 1. To explain different types of waveguides and their respective modes of propagation.
- 2. To analyze typical microwave networks using impedance, admittance, transmission and scattering matrix representations.
- 3. To design microwave matching networks using L section, single and double stub and quarter wave transformer.
- 4. To explain working of microwave passive circuits such as isolator, circulator, Directional couplers, attenuators etc.
- 5. To describe and explain working of microwave tubes and solid-state devices.

olutions that al, economic, discipline and lopment ards, quality ues, and risk
system or required to ctronic/digital its suitability design, build, equipment,
ansmission hission line lines and
networks. dance and ts.
networks. dance and ts. of hours
cadilau tid
Microwave passive comp
--
Total sum
5- Teaching and learning m
6- Teaching and learning m
students
7- Teaching and learning m
capacity students
8- Teaching and learning m outstanding students
9- Students assessment
a- Assessment methods
b- Assessment schedule
c- Weighting of
assessment

	Total 100 %
10- List of text books and ref	ferences:
a- Course notes	There are lectures notes prepared in the form of a pdf file.
b- Text books/ References	 D. M. Pozar; Microwave Engineering, 3rd Ed.; John Wiley & Sons Inc H. J. Reich, J. G. Skolnik, P. F. Ordung, H. L. Krauss; Microwave Principles; Affiliated East West Press Ltd. R. E. Collin; Foundations for Microwave Engineering, 2nd Ed; Wiley-IEEE Press Merill Skolnik; Introduction to Radar Systems, 3rd Edition; Tata McGraw Hill S. M. Liao; Microwave devices and Circuits, 3rd Ed.; Prentice Hall of India Ananjan Basu; An Introduction to Microwave Measurements; CRC Press
c- Periodicals, Web sites etc	Web Sites related to Microwave Engineering as: https://en.wikipedia.org/wiki/

11-Course contents – Course related program competencies										
	Leve	A		Level B						
	A.1	A.3	A.4	B.2	B.4	B.5				
Introduction to guided-wave structure. TEM waves in parallel plate transmission lines.	V	V	\checkmark	1	\checkmark	\checkmark				
Phase velocity, group velocity and dispersion.	V	\checkmark		\checkmark	\checkmark	\checkmark				
General transmission line equations: transmission line parameters, terminated transmission lines and standing-wave ratio. The smith chart	\checkmark	V	\checkmark	V	\checkmark	\checkmark				
Transmission line matching networks. Waveguides. Microstrip lines.	V	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark				
Microwave network analysis: impedance and admittance matrices, scattering matrix.	\checkmark	\checkmark	\checkmark	1	\checkmark	\checkmark				
Microwave passive components.	V	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark				

12-Teaching and learning methods - Course related program competencies

	Level	Α		Level B			
	A.1	A.3	A.4	B.2	B.4	B.5	
Lecture (online/in class)	\checkmark						
Discussion	V	1	1	\checkmark	\checkmark	\checkmark	
Tutorial	V	V	1	\checkmark			
Problem solving			1	\checkmark			
Brain storming				\checkmark	\checkmark	\checkmark	
Projects				\checkmark	\checkmark	\checkmark	
Self-learning						\checkmark	
Research and Reporting					\checkmark		
Computer Simulation					$\overline{\mathbf{V}}$	\checkmark	
Teamwork							

13- Assessment methods - Course related program competencies										
Assessment methods	Course related program comptencies									
		Level	Α		Leve	В				
		A.1	A.3	A.4	B.2	B.4	B.5			
1. Mid Term Examination (written/ online)		\checkmark	\checkmark	1	\checkmark	\checkmark				
2. Formative (quizzes- presentation -report	s)	\checkmark	\checkmark	\checkmark	\checkmark	V				
3. Final Term Examination (written			\checkmark		\checkmark	\checkmark				

Authorized from board of the department at 1/9/2022 Course coordinator:

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Dr. Amira A. Mahmoud

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	Electrical Power							
Course Code	ELP 321							
Academic Year	2022-2023	2022-2023						
Coordinator	Assoc. Prof. Saad Awa	Assoc. Prof. Saad Awad Mohamed Abdelwahab						
Teaching Staff	Assoc. Prof. Saad Awa	ad Mohamed Abdelwahab						
Level	Level (3)	Level (3)						
Semester	2							
Number of Weekly	Lecture	2						
Contact Hours	Tutorial	2						
	Lab	0						
Department offering the	Electronics and	d Communications Engineering,						
program	Computers an	d Systems Engineering,						
	Communicatio	ons and Computer Engineering						
Department offering the	• Electronics E	ngineering and Electrical						
course	Communicati	on						
	Communicati	011.						
	 Computers an 	d Systems Engineering.						
2- Aim of the course								
1 Learn the Power System	n Components Loads' char	acteristics Load Power Factor Correction						
Power Transformers, M	echanical Design of Trans	smission Lines						
2. Learn the Steady State	Performance of Transmis	sion Lines, HVDC Transmission, Traveling						
Waves, Transient Over	- voltages, Corona, Radio	and Audible Noise Effects of Corona						
on Power Lines,	-							
3. Study of Overhead Lin	es, Underground Cables (Construction, Types, Electric Stress						

- Distribution, Fault Location),
- 4. Conversion, Distribution systems, Grounding of Power Systems,
- 5. Learn the Role of Communication and Computers in Power Systems.
- 3- Course related program competencies

General	 A.1 Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science, and mathematics. A.3 Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and 									
Level A –	within the principles and contexts of sustainable design and development A.4 Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues, and risk									
	management pr	rinciples.								
	B.1 Select, model an discipline by ap electrical power	B.1 Select, model and analyze electrical power systems applicable to the specific discipline by applying the concepts of: generation, transmission and distribution of electrical power systems.								
λ	B.2 Design, model ar a specific applic	nd analyze an elect ation; and identify	rical/electronic/digital sy the tools required to opt	stem or component for imize this design.						
B - Speciali	B.3 Design and imp electrical/electr tools.	plement element onic/digital engin	s, modules, sub-system eering using technologic	s, or systems in al and professional						
Level	B.4 Estimate and me and circuit unde application.	asure the perform er specific input ex	ance of an electrical / ele citation and evaluate its s	ctronic/digital system uitability for a specific						
	B.5 Adopt suitable na operate, inspectant and services.	ational and interna t, and maintain ele	ational standards and cod ectrical/electronic/digital	es to design, build, equipment, systems,						
4- Course Contents	 Power System Components, Loads' characteristics, Load Power Factor Correction, Overhead Lines, Underground Cables (Construction, Types, Electric Stress Distribution, Fault Location), Power Transformers, Steady State Performance of Transmission Lines, HVDC Transmission, Traveling Waves, Transient Over - voltages, Corona, Radio and Audible Noise Effects of Corona on Power Lines, Mechanical Design of Transmission Lines, Distribution systems, Grounding of Power Systems, Role of Communication and Computers in Power Systems . 									
# Topic		Lecture	Tutorial/	No of hours						

Explain concepts of principle Power System Components, Loads' characteristics,	8	6	14					
Load Power Factor Correction, Overhead Lines, Underground Cables (Construction, Types, Electric Stress Distribution, Fault Location), Power Transformers	6	5	11					
Steady State Performance of Transmission Lines, Mechanical Design of Transmission Lines, Distribution systems, Grounding of Power Systems, Role of Communication and Computers in Power Systems.	6	<mark>5</mark>	11					
HVDC Transmission, Traveling Waves, Transient Over - voltages, Corona, Radio and Audible Noise Effects of Corona on Power Lines,	8	6 14						
Total sum	28	22	50					
5- Teaching and learning methods	 Lecture (online) Discussion Tutorial Problem solv Brain stormin Projects Self-learning Research and Computer Sin Teamwork 	ne/in class) ing ng Reporting mulation						
6- Teaching and learning methods for disable students	 Additional Tu Online lectur Using as man Providing ext 	itorials es and assignments y audio/visual aids as pos ra opportunities for pract	ssible. tice					
7- Teaching and learning methods for low capacity students 8- Teaching and learning	 Assign a port provide them Repeat the exit Assign a teac Guidance for Making small Assign course 	 Assign a portion of the office hours for practice Assign a portion of the office hours for those students and provide them with specific tailored tasks. Repeat the explanation of some of the material and tutorials. Assign a teaching assistance to follow up their performance Guidance for distance learning Making small projects to facilitate the science material 						
methods for outstanding students	 Give them ac Encourage th 	lvanced extra-curriculum em to take part in a pilot	topics. research and case					

	studies.
9- Students assessment	
a- Assessment methods	 Mid Term Examination (written/ online) Oral Examination Formative (quizzes- presentation -reports) Final Term Examination (written)
b- Assessment schedule	- Exercise sheet: Weekly - Quizz-1: Week no. 4 - Mid-Term exam: Week no. 8 - Quizz-2: Week no. 12 - Final – term examination: Week no. 16
c-Weighting of assessment	- Class tutorial and quizzes : 20 % - Mid-term examination: 10 % - Final – term examination: 70 % Total 100 %
10- List of text books and r	eferences:
a- Course notes	There are lectures notes prepared in the form of a book
b- Text books/ References	R. Bailie, Energy Conversion Engineering, Addison - Wesley Publishing Company, Inc, 1983.A. R. Foster and R. L. Wright, Basic Nuclear Engineering, Allyn and Bacon, Inc, 1989.
c- Periodicals, Web sites etc	https://www.amazon.com/Direct-Alternating-Current-Machinery- 2nd/dp/0675201608

11-Course contents – Course related program competencies									
	Level A				Level	В			
	A.1	A.3	A.4		B.1	B.2	B.3	B.4	B.5
Explain concepts of principle Power System Components, Loads' characteristics,	1	1	1			V	V		
Load Power Factor Correction, Overhead Lines, Underground Cables (Construction, Types, Electric Stress Distribution, Fault Location), Power Transformers	\checkmark	V	1			1	1	1	1
Steady State Performance of Transmission Lines, Mechanical Design of Transmission Lines, Distribution	1	\checkmark	1			\checkmark	\checkmark		\checkmark

systems, Grounding of Power Systems, Role of Communication and Computers in Power Systems.								
HVDC Transmission, Traveling Waves, Transient Over - voltages, Corona, Radio and Audible Noise Effects of Corona on Power Lines,	\checkmark	\checkmark	\checkmark	1	\checkmark	\checkmark	\checkmark	1

12-Teaching and learning methods - Course related program competencies									
	Level A				Level	В	I		
	A.1	A.3	A.4		B.1	B.2	B.3	B.4	B.5
Lecture (online/in class)		\checkmark	1		1	\checkmark	\checkmark		
Discussion	V	V	V		V			1	V
Tutorial		V	1		V			V	V
Problem solving	1		1		V	√	1	1	V
Brain storming	1	1	1		1	√	1	1	1
Projects					V	\checkmark			1
Self-learning	1		1		V	√	1	1	V
Research and Reporting	1		1		V			1	V
Computer Simulation	1		1		1			1	√
Teamwork	1	V	1		V	\checkmark	V	1	V

13- Assessment methods - Course related program com	peten	cies							
Assessment methods	Cour	se rela	ted pro	gram o	ompte	ncies			
	Leve	A			Level	В			
	A.1	A.3	A.4		B.1	B.2	B.3	B.4	B.5
Mid Term Examination (written/ online)	\checkmark	\checkmark	\checkmark			\checkmark	\checkmark		
Practical Examination									

Oral Examination		\checkmark		\checkmark	\checkmark		\checkmark	V
Formative (quizzes- presentation -reports)				\checkmark	\checkmark			
Final Term Examination (written	V	V	\checkmark	\checkmark	\checkmark	V	\checkmark	1

Authorized from board of the department at 11/2/2023 Course coordinator:

Dr Saad Awad M. Abdelwahab



K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	Electronics Engineering	g
Course Code	ECE 322	
Academic Year	2022-2023	
Coordinator	Dr. Heba M. Emara	
Teaching Staff	Dr. Heba M. Emara	
Level	Level (3)	
Semester	Second Term	
Number of Weekly	Lecture	2
Contact Hours	Tutorial	1
	Lab	2
Department offering the	 Electronics ar 	nd Communications Engineering,
program	 Computers and 	nd Systems Engineering,
	 Communicati 	ions and Computer Engineering
Department offering the	Electronics Engine	ering and Electrical
course	Communication	
O At a file of a		

2- Aim of the course

- 1. To provide students different methods and techniques required to model and analyze the electronic circuits.
- 2. To acquire students, the skills to find the equivalent circuit, the voltage gain, the current gain, the input impedance, and the output impedance.
- 3. To give students knowledge about Small geometry effects in MOSFETs, BJT and MOS analog multipliers.
- 4. To provide students with different types of oscillators and tuned amplifiers.
- 5. To provide students with different types of filters.
- 6. Training students on current conveyors and current feedback amplifiers and Voltage references.

3- Course related program competencies

Level A – General	A.1 Identify, formu engineering fu A.3 Apply engineer meet specified economic, env discipline and development A.4 Utilize contem quality guidelines, l risk management pr	llate, and solve indamentals, basi ing design process i needs with cons vironmental, ethic within the princip porary technolo health and safet inciples.	complex engineering c science, and mathema ses to produce cost-effe ideration for global, cul cal, and other aspects as ples and contexts of sust ogies, codes of prace cy requirements, envir	problems by applying atics. active solutions that tural, social, s appropriate to the tainable design and ctice and standards, onmental issues, and
Level B - Speciality	 B.2 Design, model a component fo optimize this o B.3 Design and in in electrical/el professional to B.4 Estimate and m system and cir for a specific a B.5 Adopt suitable r operate, inspect, a and services. 	and analyze an ele r a specific applica design. nplement eleme ectronic/digital e pols. neasure the perfor cuit under specifi pplication. national and inter nd maintain elec	ectrical/electronic/digit ation; and identify the t ents, modules, sub-sys engineering using techn rmance of an electrical c input excitation and e national standards and ctrical/electronic/digital	al system or ools required to stems, or systems hological and / electronic/digital evaluate its suitability codes to design, build, equipment, systems,
4- Course Contents	Small geometry effore Oscillators and wave and multi-vibrators, current conveyors a Data converters. Pha	ects in MOSFETs eform shaping - I MOS - C continu nd current feedb ise-locked loops.	. BJT and MOS analog inear oscillators, nonlin ous time filters, switch pack amplifiers - Voltag	g multipliers - lear oscillators ed - C filters - le references -
# Topic		Lecture	Tutorial/Practical	No of hours
 Small geor MOSFET: BJT and M multipliers. 	metry effects in s. iOS analog	4	4	8
 Oscillators shaping Linear osc Nonlinear -Multi-vibra 	s and waveform illators. oscillators. tors	6	6	12

MOS-C continuous-time fSwitched-C filters	ilters.	8	8	16		
Current conveyors.Current feedback amplifie	ers.	6	6	12		
Voltage references.Data converters.Phase locked loops		4	4	8		
Total sum		28	28	56		
5- Teaching and learning methods		 Lecture (onl Discussion Tutorial Problem sol Brain storm Projects Self-learning Research an Computer S Teamwork 	ine/in class) ving ing d Reporting imulation			
6- Teaching and learning		1. Additional T	utorials			
methods for disable studen	ts	 Online lecture Using as made Providing explored 	res and assignme ny audio/visual a ktra opportunities	nts ids as possible. for practice		
7- Teaching and learning methods for low capacity students		 Assign a por and provide Repeat the tutorials. Assign a tea performanc 	tion of the office them with specif explanation of so ching assistance t e	hours for those students ic tailored tasks. me of the material and to follow up their		
8- Teaching and learning methods for outstanding students		 Assign cours Give them a Encourage t studies. 	se project tasks to dvanced extra-cu hem to take part	those students. rriculum topics. in a pilot research and case		
9- Students assessment						
a- Assessment methods	1. M 2. Pr 3. O 4. Fc 5. Fi	1id Term Examination (written/ online) ractical Examination rral Examination ormative (quizzes- presentation -reports)				
b- Assessment schedule	- Exerc	cise sheet/ Lab assi	gnment: V	/eekly		
	- Quizz - Mid-	z-1: Term exam:	v v	/eek no.5 /eek no.8		

	- Quizz-2:	Week no. 12
	- Final – term examination:	Week no. 16
c- Weighting of	- Class tutorial and quizzes:	10 %
assessment	- Mid-term examination:	10 %
	- Oral and Practical work	20%
	- Final – term examination:	60 %
		Total 100 %
	_	

10- List of text books and ref	erences:
a- Course notes	There are lectures notes prepared in the form of power point.
b- Text books/ References	 A. Sedra, K. Smith, Microelectronic Circuits, Oxford Press, 5th. Ed., 2004. P. Grey, P. Hurst, S. Lewis, R. Meyer, Analysis and Design of Analog Integrated Circuits, J. Wiley and Sons, 5th. Ed., 2009. D. Johns, K. Martin, Analog Integrated Circuit Design, J. Wiley and Sons, 1st. Ed., 1996. B. Razavi, Design of Analog CMOS Integrated Circuits, McGraw Hill, 1st. Ed., 2000.
c- Periodicals, Web sites etc	www.aaroncake.net/circuits/ www.electronics-circuit.com/ www.coolcircuit.com/ www.uotiq.org/tec_magaz/volume262008/No2/abstracts/7.pdf www.allaboutcircuits.com/

11-Course contents – Course related program competer	ncies						
	Leve	A		Leve	el B		
	A.1	A.2	A.3	B.1	B.2	B.3	B.5
Small geometry effects in MOSFETs. BJT and MOS analog multipliers.	1						
 Oscillators and waveform shaping Linear oscillators. Nonlinear oscillators. Multi-vibrators 	V	V		1	V	1	1
- MOS-C continuous-time filters. Switched-C filters -		V	V			V	V

- Current conveyors. Current feedback amplifiers	\checkmark	V	V		
Voltage references.Data converters.Phase locked loops			V		

12-Teaching and learning methods - Course	related program	n comp	etenc	ies			
	Leve	IA		Leve	В		
	A.1	A.3	A.4	B.2	B.3	B.4	B.5
Lecture (online/in class)	1						
Discussion	1	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Tutorial	V	V	\checkmark	\checkmark	\checkmark		
Problem solving			\checkmark	\checkmark	\checkmark		
Brain storming				\checkmark	\checkmark	\checkmark	\checkmark
Projects				\checkmark	\checkmark	\checkmark	\checkmark
Self-learning							\checkmark
Research and Reporting						\checkmark	
Computer Simulation						\checkmark	\checkmark
Teamwork							

13- Assessment methods - Course related prog	ram compete	ncies						
Assessment methods	Course relate	ed prog	ram co	ompter	ncies			
		Level	Α		Leve	l B		
		A.1	A.3	A.4	B.2	B.3	B.4	B.5
1. Mid Term Examination (written/ online)		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
2. Practical Examination								
3. Oral Examination								
4. Formative (quizzes- presentation -report	s)	\checkmark	V	V	\checkmark	1		
5. Final Term Examination (written		\checkmark	\checkmark	1	\checkmark	1		

Authorized from board of the department at 4/2/2023. Course coordinator:

even



Dr. Heba M. Emara

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title		Power Electronics	5
Course Code		ELP 323	
Academic Year		2022-2023	
Coordinator		Assoc. Prof. Walid S	alah Eldeen Abdellatif
Teaching Staff		Assoc. Prof. Walid S	alah Eldeen Abdellatif
Level		Level (3)	
Semester		First Term	
Number of	Weekly	Lecture	2
Contact Hours		Tutorial	1
		Lab	2
Department offe	ering the	Electronics as	nd Communications Engineering,
program		 Computers a 	nd Systems Engineering,
		Communicat	ions and Computer Engineering
Denartment offe	ring the	Electronics and Co	mmunications Engineering
Department one	ing the		
course			
course 2- Aim of the course			
2- Aim of the course 1. This course i	ntroducing l	pasics of power electron	ics,
Course 2- Aim of the course 1. This course i 2. Identify the	ntroducing l power elect	pasics of power electron cronic systems,	ics,
course2- Aim of the course1.This course i2.Identify the3.Discuss the course	ntroducing k power elect lifferent dev	pasics of power electron ronic systems, rices of power electronic	ics, s, and
course2- Aim of the course1.This course i2.Identify the3.Discuss the o4.Encourage the	ntroducing I power elect lifferent dev ne student to	pasics of power electron cronic systems, rices of power electronic o understand the main c	ics, is, and concept of power electronics.
COURSE 2- Aim of the course 1. This course i 2. Identify the 3. Discuss the c 4. Encourage the 3- Course related prop	ntroducing b power elect lifferent dev ne student to gram compe	pasics of power electron cronic systems, vices of power electronic o understand the main c tencies	ics, s, and concept of power electronics.

Level B - Specialty	 B.2 Design, mod component for optimize this of B.3 Design and if in electrical, professional to B.4 Estimate and if system and cit for a specific a 	el and analyze or a specific app design. mplement elem /electronic/digital pols. measure the per rcuit under specif pplication.	an electrical/electror lication; and identify lents, modules, sub-s l engineering using formance of an electric fic input excitation and	nic/digital system or the tools required to systems, or systems technological and cal / electronic/digital evaluate its suitability			
4- Course Contents Power Diodes - Diode Rectifier Circuits, Thyristors (Types, Turn on, Turn off and Protection), Thyristor Commutation Techniques, GTO Thyristors, Power Transistors, Controlled Rectifier Circuits, AC Voltage Controllers, Choppers, Inverters, UPS, Static Switches.							
# Topic		Lecture	Tutorial/Practical	No of hours			
Introduction electronics	n to power	4	6	8			
Power Dioo Circuits	des, Diode Rectifier	6	8	12			
Thyristors (Types, Turn on, Turn off and Protection, Thyristor Commutation Techniques, GTO ,(Thyristors		4	8	8			
Power Tran Rectifier Cir	sistors, Controlled cuits,	6	12	12			
AC Voltage Controllers, Choppers, Inverters, UPS, Static Switches.		8	8	16			
Total sum		28	42	56			
5- Teaching methods	ning and learning 1. Lecture (online/in class) 2. Discussion 3. Tutorial 4. Problem solving 5. Brain storming 6. Projects 7. Self-learning 8. Research and Reporting 9. Computer Simulation 10. Teamwork 10. Teamwork						

methods for disable studen	ts	2. Online lectures and assignments				
	:	3. Using as many audio/visual aids as possible.				
	4	4. Providing extra opportunities for practice				
7- Teaching and learning	-	1. Assign a portion of the of	fice hours for those students			
methods for low capacity	,	and 2 provide them with specif	ic tailored tasks			
students		3. Repeat the explanation of	f some of the material and			
		tutorials.				
	4	4. Assign a teaching assista	nce to follow up their			
		performance				
8- Teaching and learning		 Assign course project tas Give them advanced extr 	ks to those students.			
students		 Encourage them to take i 	part in a pilot research and case			
Students		studies.				
9- Students assessment						
a- Assessment	1. Mic	d Term Examination (written/	'online)			
methods	2. Pra	actical Examination				
	3. Ura 4 For	mative (quizzes- presentation	n-reports)			
	5. Fina	Final Term Examination (written)				
b- Assessment schedule	- Exercis	kercise sheet/ Lab assignment : Weekly				
	- Quizz-2	1:	Week no. 5			
	- Mid-Te	erm exam:	Week no . 8			
	- Quizz-2	2:	Week no. 12			
	- Final –	-term examination:	Week no. 16			
c-Weighting of	- Class to	utorial and quizzes :	10 %			
assessment	- Mid-te	erm examination:	10 %			
	-Oral Ex	kam	20 %			
	- Final –	-term examination:	60 %			
	100 %					
10- List of text books and re	10- List of text books and references:					
a- Course notes	a- Course notes There are lectures notes prepared in the form of a book					
	auth	norized by the department.				
b- Text books/ References	[Textb	book:				
	. ₪ M. N	VI. Kashid, Power Electronics,	Circuits, Devices and			
	Roford	Applications, Prentice - Hall, 2	na. Ea., 1993.			
		Dewan and A Straughen Po	wer Semiconductor Circuits			
	Wiley	& Sons, 1975.				
	, ,	· ·				

c- Periodicals, Web sites	
etc	

11-Course contents – Course related program competencies							
	Leve	IA		Level B			
	A.1	A.3	A.4	B.2	B.3	B.4	
Introduction to power electronics, Power Diodes, Diode Rectifier Circuits	V			V			
Thyristors (Types, Turn on, Turn off and Protection, Thyristor Commutation Techniques, GTO Thyristors),	\checkmark	\checkmark		V		1	
Power Transistors, Controlled Rectifier Circuits,		\checkmark				V	
AC Voltage Controllers, Choppers,	\checkmark	\checkmark		\checkmark		\checkmark	
Inverters, UPS, Static Switches.		\checkmark				\checkmark	

12-Teaching and learning methods - Course related program competencies							
	Level	Α		Level B			
	A.1	A.3	A.4	B.2	B.3	B.4	
Lecture (online/in class)	√						
Discussion	1	\checkmark		\checkmark	1	\checkmark	
Tutorial	1	\checkmark		V	\checkmark		
Problem solving				\checkmark	V		
Brain storming				\checkmark	V	\checkmark	
Projects				\checkmark	1	\checkmark	
Self-learning	1						
Research and Reporting						\checkmark	
Computer Simulation						\checkmark	
Teamwork	\checkmark						

13- Assessment methods - Course related program competencies								
Assessment methods	Course related program comptencies							
		Level	Α		Leve	l B		
		A.1	A.3	A.4	B.2	B.3	B.4	B.5
1. Mid Term Examination (written/ online)		\checkmark	\checkmark		\checkmark	\checkmark		
2. Practical Examination					\checkmark			
3. Oral Examination						V	V	
4. Formative (quizzes- presentation -report	s)	\checkmark	V		\checkmark	1		
5. Final Term Examination (written		\checkmark	V		\checkmark	V	\checkmark	

Authorized from board of the department at 11/2/2022 Course coordinator:





Dr. Walid Salah Eldeen Abdellatif

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	Computer architecture				
Course Code	CSE 324				
Academic Year	2022-2023				
Coordinator	Dr. Gafary Mahmoud				
Teaching Staff	Dr. Gafary Mahmoud	1			
Level	Level (3)				
Semester	Second Term				
Number of Weekly	Lecture	2			
Contact Hours	Tutorial	2			
	Lab	0			
Department offering the	Electronics ar	nd Communications Engineering,			
program	Computers a	nd Systems Engineering,			
	Communications and Computer Engineering				
Department offering the	Computers and Systems Engineering				
course					
2- Aim of the course					

1. To teach student basics of artificial intelligence, and its applications.

2. To equip students with methods of search strategies, fuzzy logics, machine learning, and neural networks.

- 3. To acquire students a good idea to use blind search methods.
- 4. To teach students the concepts and applications of rule-based systems.

5. To provide students with the design steps of intelligent control systems.

3- Course related program competencies

	A.1. Identify, formulate, a problems by applying engination and mathematics. A.2. Develop and conduct	ind solve o ineering fu	complex engineer undamentals, bas	ing ic science ion and/or					
eneral	simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions								
Level A – G	A.3. Apply engineering design processes to produce cost- effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.								
	A.5. Practice research tec as an inherent part of lear	hniques ar ning.	nd methods of inv	vestigation					
Level B - Speciality									
4- Course Contents	Search: Graph search – Constraint satisfaction - Games – Machine Learning: Decision trees, Neural Networks: Knowledge representation and inference: Propositional and first order logic – Rule-based systems – Fuzzy logic systems.								
# Topic		Lecture	Tutorial/Practical	No of hours					
Von Newm	an and Harvard architectures	2	2	4					
Computer a	rithmetic	2	2	4					
Input / outp Control uni	ut organization t	2	2	4					
Bus synchr	ronization, I/O devices	2	2 4						
Design of A	ALU and pipelined processor	2	2	4					
Memory are acess	Memory architectures and design, RAM 2 2 4								

Connection of computer p	peripherals	2	2	4			
Large computer systems() array processors, intercom multi processors	parallel processing, nect networks,	4	8				
Basic concepts of cache n algorithms, and write poli	nemory, mapping	2	2	4			
Total sum		40	20	20			
5- Teaching and learning m	 Lecture (/in class) Discussion Tutorial Problem solving Brain storming Projects Self-learning Research and Reporting Computer Simulation Teamwork 						
6- Teaching and learning m students	ethods for disable	 Additio Online Using a Providi 	Additional Tutorials Online lectures and assignments Using as many audio/visual aids as possible. Providing extra opportunities for practice				
7- Teaching and learning m capacity students	 Assign a portion of the office hours for those students and provide them with specific tailored tasks. Repeat the explanation of some of the material and tutorials. Assign a teaching assistance to follow up 						
8- Teaching and learning m outstanding students	 Assign studen Give th topics. Encour researce 	 Assign course project tasks to those students. Give them advanced extra-curriculum topics. Encourage them to take part in a pilot research and case studies 					
9- Students assessment							
a- Assessment methods	 Mid Term Exam Practical Examination Oral Examination Formative (quiztional Term Examination) 	Examination (written/ online) Examination Ination (quizzes- presentation -reports) Examination (written)					
b- Assessment schedule	- Exercise sheet/ Lab - Quizz-1:	b assignment : Weekly Week no. 5					

	- Mid-Term exam:	Week no . 8				
	- Quizz-2:	Week no. 12				
	- Final – term examination:	Week no. 16				
c-Weighting of	- Class tutorial and quizzes :	10 %				
assessment	- Mid-term examination:	20 %				
	- Final – term examination:	70 %				
	Total	100 %				
10- List of text books and references:						
a- Course notes	There are lectures notes prepare	There are lectures notes prepared in the form of a pdf.				
b- Text books/ References	V. Rajarman and T. Radhakrishnan, Computer Organization & Architecture PHI Learning Private Limited, New Delhi 2007					
c- Periodicals, Web sites	Web Sites related to Computer archi	tecture engineering as:				
etc	www. Computer architecture.hmc.edu,					
	www.tutorial. Computer architecture.edu,					
	www.web.mit.edu					
	www.web.mit.edu					

11-Course contents – Course related program competencies	Level A Level B							
	A.1	A.2	A.3	А. 5	B.1	B.2	B.3	B.5
Solving problems by searching	\checkmark	\checkmark	1		\checkmark	\checkmark	\checkmark	
Inference in First Order Logic	√	V	V		\checkmark	1	\checkmark	
Fuzzy logic control	V	V	\checkmark	\checkmark	\checkmark	√	\checkmark	\checkmark
Intelligent Agen	V	V	\checkmark		\checkmark	\checkmark	\checkmark	
Learning in Neural and Belief Networ	V	√	\checkmark		\checkmark	\checkmark	\checkmark	

Level A	

12-Teaching and learning methods - Course related program competencies	A.1	A.2	A.3	A.5	B.1	B.2	B.3	B.5
Lecture (online/in class)		\checkmark	1	\checkmark	\checkmark	\checkmark	\checkmark	
Discussion		\checkmark	1	\checkmark	\checkmark	\checkmark	\checkmark	
Tutorial	1	\checkmark	1	\checkmark	\checkmark	1	\checkmark	\checkmark
Problem solving	1	\checkmark	1	\checkmark	\checkmark	\checkmark	\checkmark	
Brain storming	1	\checkmark	1	\checkmark	\checkmark	\checkmark	\checkmark	
Projects	1	\checkmark	\checkmark	V	B.1	B.2	B.3	B.5
Self-learning		\checkmark			\checkmark	\checkmark	\checkmark	
Research and Reporting			1		\checkmark	\checkmark	\checkmark	
Computer Simulation					\checkmark	\checkmark	\checkmark	\checkmark
Teamwork					\checkmark	1	\checkmark	

13- Assessment methods - Course related program competencies									
Assessment methods	Course related program comptencies								
			Lev	el A			Lev	el B	
		A.1	A.2	A.3	A.5	B.1	B.2	B.3	B.5
1. Mid Term Examination (written/ online)		\checkmark							
2. Practical Examination		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark
3. Oral Examination		\checkmark	\checkmark	V		1	\checkmark	\checkmark	\checkmark
4. Formative (quizzes- presentation -report	ts)	\checkmark							
5. Final Term Examination (written		\checkmark							

Authorized from board of the department at 4/2/2023 Course coordinator:



Dr. Gafary Mahmoud



K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Code HUM 351 Academic Year 2022-2023 Coordinator Dr. Somaia Ahmed Desoky Teaching Staff Dr. Somaia Ahmed Desoky Level Dr. Somaia Ahmed Desoky Level Level (3) Semester Second Term Number of Veekly Lecture 1 Contact Hours Use (1) Use (1) Department offering the program • Electronics and Communications Engineering, • Computers and Systems Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering Department offering the course • Communications and Computer Engineering 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base . To make the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
Academic Year 2022-2023 Coordinator Dr. Somaia Ahmed Desoky Teaching Staff Dr. Somaia Ahmed Desoky Level Dr. Somaia Ahmed Desoky Level Level (3) Semester Second Term Number of Veekly Lecture Contact Hours Lecture Tutorial 0 Department offering the program Electronics and Communications Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering Department offering the course Basic Science 2- Aim of the course Interview of social responsibility. 1. To inculcate the sense of social responsibility. Z. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3-Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
Coordinator Dr. Somaia Ahmed Desoky Teaching Staff Dr. Somaia Ahmed Desoky Level Dr. Somaia Ahmed Desoky Level Desoty Semester Second Term Number of Weekly Contact Hours Lecture 1 Tutorial 0 0 Department offering the program Electronics and Communications Engineering, Computers and Systems Engineering, Operatment offering the course Basic Science Communications and Computer Engineering 2- Aim of the course Interview the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
Teaching Staff Dr. Somaia Ahmed Desoky Level Level (3) Semester Second Term Number of Weekly Contact Hours Lecture 1 Tutorial 0 Department offering the program • Electronics and Communications Engineering, • Computers and Systems Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering Department offering the Basic Science Program Basic Science Image: Course Image: Course of Social responsibility. Image: Course of Social responsibility. Image: Course related program competencies Image: Course of Social responsibility. Image: Course of Social responsibility. Image: Course related program competencies Image: Course of Social Program competencies Image: Course of Social Program competencies						
Level (3) Semester Second Term Number of Weekly Contact Hours Lecture 1 Tutorial 0 Leb 0 Department offering the program Electronics and Communications Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering Department offering the course Basic Science 2-Aim of the course Electronics of ethics in professional environment 1. To inculcate the sense of social responsibility. z. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment and solve complex engineering problems by						
Semester Second Term Number of Weekly Lecture 1 Contact Hours Interial 0 0 Department offering the e Electronics and Communications Engineering, program Computers and Systems Engineering, Computers and Systems Engineering, e Communications and Computer Engineering, Department offering the Basic Science Engineering 2- Aim of the course I To inculcate the sense of social responsibility. I To develop a firm ethical base I To make the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify formulate and solve complex engineering professional environment						
Number of Ontact Hours Weekly Lecture 1 Contact Hours Tutorial 0 Lab 0 Department offering the program • Electronics and Communications Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering • Course 2- Aim of the course 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify						
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Lab 0 Department offering the program • Electronics and Communications Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering • Communications and Computer Engineering • Communications and Computer Engineering Department offering the course Basic Science 2- Aim of the course • Interview 1. To inculcate the sense of social responsibility. • To make the students realize the significance of ethics in professional environment 3- Course related program competencies • A 1 A 1 Identify formulate and solve complex engineering problems by						
Department offering the program • Electronics and Communications Engineering, • Computers and Systems Engineering, • Communications and Computer Engineering • Department offering the course • Basic Science 2- Aim of the course • Introducate the sense of social responsibility. 1. To inculcate the sense of social responsibility. • To make the students realize the significance of ethics in professional environment 3- Course related program competencies • A 1						
 program Computers and Systems Engineering, Communications and Computer Engineering Department offering the course Basic Science 2- Aim of the course To inculcate the sense of social responsibility. To develop a firm ethical base To make the students realize the significance of ethics in professional environment 3- Course related program competencies 						
 Communications and Computer Engineering Department offering the Basic Science Course 2- Aim of the course 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3- Course related program competencies 						
Department offering the course Basic Science 2- Aim of the course 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
Department offering the course Basic Science 2- Aim of the course 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
Department One mig the Deside Science course 2- Aim of the course 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3- Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
 2- Aim of the course 1. To inculcate the sense of social responsibility. 2. To develop a firm ethical base 3. To make the students realize the significance of ethics in professional environment 3- Course related program competencies 						
 To inculcate the sense of social responsibility. To develop a firm ethical base To make the students realize the significance of ethics in professional environment Course related program competencies 						
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3- Course related program competencies A 1 Identify formulate and solve complex engineering problems by						
A 1 Identify formulate and solve complex engineering problems by						
 A.1. Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science and mathematics. A.5. Practice research techniques and methods of investigation as an inherent part of learning A.7. Function efficiently as an individual and as a member of multidisciplinary and multicultural teams A.8 Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary 						

Level B - Speciality							
4- Course Contents	نظرة عامة على علم الهندسة ومهنة المهندس : علم الهندسة قاطرة الحضارة للأمم منذ فجر التاريخ- مهنة المهندس من أرقى وأسمى المهن عموما – (تستند إلى الإبداع والابتكار والتطوير الذي يضيفه كل مهندس من فكرة الخاص ¹ تخدم البشرية كلها وتسعى إلى الجودة في حياة الإنسان عموماً) مسئوليات المهندس دوليا ومحليا : الدور الهام للمهندس طبقا للعقود الدولية (فيديك TiDIC)(-)مسئولية المهندس دوليا المهندس وفقا للقوانين المصرية . أخلاقيات وأداب المهنة : نظرة شاملة على قانون المهندس دوليا مسئولية المهندس من أرقى وأداب المهند من أرفي وأسمى المهندس دوليا : الدور الهام للمهندس طبقا للعقود الدولية (فيديك TiDIC)(-)مسئولية المهندس دوليا : الدور الهام للمهندس طبقا للعقود الدولية (فيديك Tide) (FIDIC)(-)مسئولية المهندس دوليا : الدور الهام للمهندس طبقا للعقود الدولية (فيديك Tide) (حاص المهندس دوليا المهندس دوليا المهندس دوليا المهندس دوليا : الدور الهام للمهندس طبقا للعقود الدولية (فيديك Tide) (حاص المهندس دوليا المهندس دوليا المهندس دوليا المهندس دوليا المهندس دوليا : الدور الهام للمهندس طبقا للعقود الدولية (فيديك Tide) (حاص المهندس دوليا المالة على قانون المعرب أمالة على المهندس دوليا المهندس دوليا المهندس دوليا المهندس دوليا المالة على قانون المهندس دوليا المهندس دوليا المهندس دوليا المالة على المالة على المهندس دوليا المهندس دوليا المهندس دوليا المهندس دوليا المالة على أمالة على المالة على المالة المهندس دوليا المهندس دوليا الماليا المالة على قانون الماليا ماليا الماليا الماليا ماليا ماليا الماليا ماليا الماليا مواليا المهندس دوليا الماليا المالياليا الماليا الماليا الماليا الماليا الماليا الماليا الماليا ال						
# Topic		Lecture	Tutorial/Practical	No of hours			
ة البشرية	التعريف بالمقرر ومفرداته ومصادره مقدمة عن العمل والأخلاق وأهميتها للحيا	2		2			
، المهندس دوليا الدولية (فيديك)	مفهوم أخلاقيات المهنة وأهميتها مسئوليات ومحليا : الدور الهام للمهندس طبقا للعقود	4		4			
أخلاقيات وأداب بن رقم 66 لسنة نسائها كما وردت بالقاتون	مسئولية المهندس وفقا للقوانين المصرية . المهنة : نظرة شاملة على قاتون نقابة المهندسي 1974 – التأكد على أهداف النقابة وواجبات أعط	4		4			
ما وردت) – حلی به	التأكيد على أهداف النقابة وواجبات أعضائها كم بالقانون وضع ميثاق شرف يجمع مايجب أن يت المهندس من أخلاق وصفات وأداب	4		4			
Total sum		14		14			
5- Teaching	–.	(online/in class) ion i solving orming rning h and Reporting er Simulation ork					

6- Teaching and learning me	ethods for disable 1. Additional Tutorials					
students		2.	Online lectures and assignments			
		3.	Using as many audio/visual aids as possible.			
		4.	Providing extra opportunities for practice			
7- Teaching and learning m	ethods for low	1.	Assign a portion of the office hours for			
capacity students			those students and			
		2.	provide them with specific tailored tasks.			
		3.	Repeat the explanation of some of the			
			material and tutorials.			
		4.	Assign a teaching assistance to follow up			
			their performance			
8- Teaching and learning me	ethods for	1. Assign course project tasks to those				
outstanding students			students.			
		2. Give them advanced extra-curriculum				
		_	topics.			
		3. Encourage them to take part in a pilot				
			research and case studies.			
9- Students assessment						
a- Assessment	1. Mid Term Exam	inati	ion (written/ online)			
methods	2. Practical Examination					
	3. Oral Examination					
	4. Formative (quizzes- presentation -reports)					
	5. Final Term Examination (written)					
b- Assessment schedule	- Exercise sheet/ Lab	assig	nment : Weekly			
	- Quizz-1:		Week no. 5			
	- Mid-Term exam:		Week no . 8			
	- Quizz-2:		Week no. 12			
	- Final – term examin	atior	n: Week no. 16			
c- Weighting of	- Class tutorial and qu	uizze	s: 5 %			
assessment	- Mid-term examinati	ion:	10 %			
	- Final – term examin	atior	า: 35%			
			Total 100 %			
10- List of text books and re	ferences:					
a- Course notes	There are lectures notes prepared in the form of a book					
	authorized by the department.					
b- Text books/ References	النشر العلمي،	لس	 المهنة وأخلاقها، د. سعد الدين هلالي، مج 			
	من المعندسين	ة م	حامعة الكويت، ط1، 2006م قانون نقار			
			م لائحته التنفيذية			

 أخلاقيات المهنة جامعة الملك سعود قسم الدراسات الاسلامية
Professions", www.encyclopedia.com, Retrieved 5 - 8-2018. Edited,

11-Course contents – Course related program competencies							
			Level	Α			
		A.1	A.5	A.7	A.8		
يف بالمقرر ومفرداته ومصادره مة عن العمل والأخلاق وأهميتها للحياة البشرية	التعر مقد	1	1				
وم أخلاقيات المهنة وأهميتها مسئوليات المهندس دوليا ومحليا : الـدور الهـام بندس طبقا للعقود الدولية (فيديك)	مفهر للمو	V	V				
لية المهندس وفقا للقوانين المصرية . أخلاقيات وأداب المهنة : نظرة شاملة على ، نقابة المهندسين رقم 66 لسنة 1974 – التأكد على أهداف النقابة وواجبات ائها كما وردت بالقانون	مسئو قانون أعض		V	V	V		
التأكيد على أهداف النقابة وواجبات أعضائها كما وردت بالقانون وضع ميثاق ف يجمع مايجب أن يتحلى به المهندس من أخلاق وصفات وأداب) – شرط		\checkmark	\checkmark	V		

12-Teaching and learning methods - Course related program competencies							
	Level A						
	A.1	A.5	A.7	A.8			
Lecture (online/in class)	\checkmark	\checkmark	\checkmark				
Discussion	\checkmark	\checkmark					
Tutorial	\checkmark	\checkmark		\checkmark			
Problem solving	\checkmark	\checkmark					
Brain storming	1			\checkmark			
Projects		\checkmark	\checkmark	\checkmark			

Self-learning	V		
Research and Reporting		\checkmark	
Computer Simulation			
Teamwork			

13- Assessment methods - Course related program competencies							
Assessment methods Course related program comptencies							
			Leve	el A			
		A.1	A.5	A.7	A.8		
1. Mid Term Examination (written/ online)		\checkmark	\checkmark				
2. Practical Examination							
3. Oral Examination				\checkmark			
4. Formative (quizzes- presentation -reports)			\checkmark		$\overline{\mathbf{A}}$		
5. Final Term Examination (written							

Authorized from board of the department at /2023 Course coordinator:

Dr. Somaia Desouky

all 1 -

K 10, Bilbies – 10th of Ramadan



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

Course Specification

1- Basic Information

Course Title	English Languages	s 2				
Course Code	HUM X13					
Academic Year	2022-2023					
Coordinator	Assoc. Prof. Walid Sa	alah Eldeen Abdellatif				
Teaching Staff	Assoc. Prof. Walid Sa	alah Eldeen Abdellatif				
Level	Level (3)					
Semester	First Term					
Number of Weekly	Lecture	1				
Contact Hours	Tutorial	2				
	Lab	0				
Department offering the	e • Electronics and Communications Engineering,					
program	Computers ar	nd Systems Engineering,				
	 Communication 	ons and Computer Engineering				
Department offering the	e Electronics and Communications Engineering					
course						
2- Aim of the course						
Develop a basic knowledge of English Languages.						

- 2. Acquire the main principles of Question tags (check information)
- 3. Provide knowledge about basis of time expressions (write a short story) if structures (write a dairy entry)
- 4. Help the students to write a formal letter of application.
- 5. Help the students to write a report of survey findings Relative clauses (write an article).

3- Course related program competencies

Level A – General	 A.1 Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science, and mathematics. A.3 Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development. 							
Level B - Speciality	B.5 Adopt suitable national and international standards and codes to design, build, operate, inspect, and maintain electrical/electronic/digital equipment, systems, and services.							
 4- Course Contents Question tags (check information) - futures overview - verb phrase about work (talk about future plans & make predictions) - narrative tenses - time expressions - (write a short story) if structures (1) - (write a dairy entry) - used to/get used to/would - appearance (describe appearance) - present perfect simple & continuous -adjectives with ed & ing endings - (write an informal email) - countable & uncountable nouns - food & cooking - (describe how to prepare & cook a dish) - it's time/I'd rather/ I'd better - describing personality(describe different types of people) - sequencing devices e.g. after + ing - vocabulary: law & insurance (tell a funny story) - reflexive pronouns - (ask about & give your own beliefs & opinions). present/future modals of possibility - noises) make speculations(- in case - write a formal letter of application - adjectives & adverbs - verb phrases with take - (give a presentation about a place - present/future modals of possibility - noises - (make speculations - in case - (write a formal letter of application - adjectives & adverbs -verb phrases with take - (give a presentation about a place) - emphasis -phrasal verbs with out - (compare & contrast photographs) - although, but, however, nevertheless -feelings - (talk about books - making comparisons - verb phrases about moving/ travelling - (make comparisons about places & people - have/get something else -animal expression - (talk about services - hard and hardly - (write a report of survey findings - Relative clauses - (write an article) - if Structure (2) - speaking - (talk about your regrets & resolutions). 								
# Topic		Lecture	Tutorial/Practical	No of hours				
Question ta information	gs (check	2	4	6				
futures ove about work plans & mal	rview - verb phrase (talk about future ke predictions) -	3	6 9					
Time expres	ssions - (write a	3	6	9				

short story) if structures - .((write a dairy entry										
Write a formal letter of .application		3	6	9						
Write a report of survey findings - Relative clauses (write an article).	-	3	6	9						
Total sum		14	28	42						
5- Teaching and learning methods	 Lecture (online/in class) Discussion Tutorial Problem solving Brain storming Projects Self-learning Research and Reporting Computer Simulation 									
6- Teaching and learning		1. Additional T	1. Additional Tutorials							
methods for disable studen	 Online lectures and assignments Using as many audio/visual aids as possible. Providing extra opportunities for practice 									
7- Teaching and learning methods for low capacity students	 Assign a portion of the office hours for those students and provide them with specific tailored tasks. Repeat the explanation of some of the material and tutorials. Assign a teaching assistance to follow up their performance 									
8- Teaching and learning methods for outstanding students		 Assign course project tasks to those students. Give them advanced extra-curriculum topics. Encourage them to take part in a pilot research and case studies. 								
9- Students assessment										
a- Assessment methods	 1. N 2. Pr 3. O 4. Fo 5. Fi 	Mid Term Examination (written/ online) Practical Examination Oral Examination Formative (quizzes- presentation -reports) Final Term Examination (written)								
b- Assessment schedule	- Exer	cise sheet/ Lab assi	gnment :	Weekly						
	- Quiz	z-1:	,	Week no. 5						
	- Mid-	Mid-Term exam: Week no . 8								

	- Quizz-2:		Week no. 12				
	- Final – term examination:		Week no. 16				
c- Weighting of	- Class tutorial and quizzes :		15 %				
assessment	- Mid-term examination:		15 %				
	- Final – term examination:		70 %				
		Total	100 %				
10- List of text books and references:							
a- Course notes	There are lectures notes	prepared	l in the form of a book				
	authorized by the department.						
b- Text books/ References	Textbook:						
	Richard Acklam, Total En	Richard Acklam, Total English - Upper - Intermediate Level,					
	Pearson Education Limited	l - Longm	an, Last Edition				
c- Periodicals, Web sites							
etc							

11-Course contents – Course related program competencies									
	Level A			Level B					
	A.1	A.3					B.5		
Question tags (check information	\checkmark								
futures overview - verb phrase about work (talk about future plans & make predictions) -	1	V					V		
Time expressions - (write a short story) if structures - (write a dairy entry.(\checkmark					V		
Write a formal letter of application.	\checkmark	1					V		
Write a report of survey findings - Relative clauses - (write an article).		\checkmark							

12-Teaching and learning methods - Course related program competencies									
	Level A			Level B					
	A.1	A.3					B.5		
Lecture (online/in class)	1								

Discussion	V	\checkmark			\checkmark
Tutorial	1				
Problem solving		\checkmark			
Brain storming		1			\checkmark
Projects		1			V
Self-learning					V
Research and Reporting		1			
Computer Simulation		1			V
Teamwork	V	\checkmark			

13- Assessment methods - Course related program competencies									
Assessment methods	Course related program competencies								
		Level	Α	Lev	Level B				
		A.1	A.3				B.5		
1. Mid Term Examination (written/ online)		1	1						
2. Practical Examination			1				\checkmark		
3. Oral Examination			1						
4. Formative (quizzes- presentation -reports)		V	1				\checkmark		
5. Final Term Examination (written		1					\checkmark		

Authorized from board of the department at 11/2/2023 Course coordinator:

Strep



Dr. Walid Salah Eldeen Abdellatif


Department offering the program: Electronics and Communications Engineering, Computers and Systems Engineering, **Communications and Computer Engineering**

Department offering the course: General

Course Specification

1. Course Basic Information:					
Course Code: 391	Course Title: Field Traini 2 تدریب میدانی	ng 2	Academic years: 2021/2022 Level (3) – Semester : 2 nd		
Institute Requirement	Teaching hours:				
	Lecture : 0	: 0 Tutorial:		Lab: 6	

2. Course Objectives

قضى الطالب تدريبا ميدانيا بعد استكمالة لمقررات المستوى الثانى بالمعهد العالى للهندسة الالكترونية لمدة اربعة اسابيعوقد اظهار المهارات المهنية والعمليه التي اكتسبها خلال المناقشة بعد تسليم تقرير مفصل على مدى الاستفادة

3. Intended Learning Outcomes: ARS		Course ILOs	
A. Knowledge and Understanding:	تم التعرف على احد البر امج الهامه في مجالا الكهرباء A.1 و هو برنامج الماتلاب	A.1-1 Explain concepts of Fundamentals of MATLAB	
B. Intellectual Skills			
C. Professional Skills	التدريب العملي على دوائر القوى الكهربيه وكذلك الالات .C.1 الكهربيه.	التدريب على دوائر المحول من التيار المتمر الى .C.1-1 التيار المتغير والعكس	

Ministry of Higher Education High Institute of Electronic Engineering Ministerial Resolution 5053 - 12/10/2016



وزارة التعليم العالي المعهد العالي للهندسة الإلكترونية قرار وزاري 5053 – 2016/10/12 ك 10 طريق بلبيس العاشر من رمضان

K 10, Bilbies – 10th of Ramadan

D. General Skills	التفاعل داخل العمل الجامعي اثناء الندريب .D.3	قام الطلاب بتقديم نقرير مفصل على الاجزاء التي -D.3 استفادة منها وتم المناقشة في التقدير من اللجنة
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4. Course Contents

Syllabus: Students should spend 4 weeks in field training, after completing the third level, in any Engineering Institution or Engineering Firms. Students should demonstrate the professional and practical skills they acquired during discussion with their assigned tutors.

يقضى الطالب تدريبا ميدانيا بعد استكمالة لمقررات المستوى الثالث باحد المؤسسات الهندسية او المعاهد الهندسية ولمدة اربعة اسابيع. وعلى الطلاب اظهار المهارات المهنية والعمليه التي اكتسبها خلال المناقشة مع المشرف الاكاديمي.

5. Teaching and Learning Methods

- Lectures
- Power point
- Research assignments

6. Teaching and Learning Methods for disable students

كان التدريب من خال الاتي التدريب على اهم او امر برنامج الماتلاب وكيفية العمل وتنفيذ الدوائر الكهربيه والعمليات الرياضية عليه التدريب على معمل الكترونيات القدرة التدريب علبي اهم قواعد البرمجه في نظم الحاسبات

7. Student Assessment	
a. Assessment Methods	اعمال السنه + المناقشة والتقرير ■
b. Assessment Schedule	التقرير + المناقشة
	■ اعمال السنه •
c. Weighting of Assessment	% 50 التقرير والمناقشة ■
	Total 100 %

8. List of text books and references				
a. Course notes	التدريب العملي وعرض البور بونت			
b. Text books	التدريب العملي			
c. Recommended books				
d. Periodicals, Web sites				

Ministerial Resolution 5053 - 12/10/2016



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...etc

Course contents - ILOs Matrix

Content Topics	Week	A- Knowledge &	B-Intellectual	C- Professional and	D- General and
		Understanding	Skills	Practical Skills	Transferable Skills
برنامج الماتلاب	1	A.1		C.1	D3
الكترونيات القدرة	2			C.1	D.3
الات كهربيه	3			C.1	D.3
برمجة الحاسب	4			C.1	D.3

Teaching and Learning Methods - ILOs Matrix

Teaching and Learning Methods	A- Knowledge	B-	C-Professional	D- General and
	&	Intellectual	and practical	transferable
	Understanding	skills	skills	skills
Lectures				
tutorials				
Labs	A.1		C.1	D.3
Research assignments				

Assessment Methods - ILOs Matrix

Assessment Methods	A- Knowledge & Understanding	B- Intellectual skills	C- Professional and practical skills	D- General and transferable skills
Weekly sheet exercises				
Labs	A.1		C.1	D.3
Quizzes				
Midterm exams				

Course coordinator:

Dr Saad Awad M. Abdelwahab

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