

# **Manufacturing Engineering and Production Technology B.Sc.**

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**Program Report  
By-Law-2012  
2013 - 2014**



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# Manufacturing Engineering and Production Technology

## PROGRAM REPORT (Credit Hours)

September 2015

### 1. General

#### 1.1 Basic Information

- 1- **Program title:** Manufacturing Engineering and Production Technology BSc Program.
- 2- **Program type:** Single.
- 3- **Department offering the program:** Manufacturing Engineering and Production Technology Department.
- 4- **Co-coordinator:** Dr. Abdelmagid A. Abdalla
- 5- **Year of operation:** 2012-2013

#### NOTE:

This program started in 2012/2013, which means that students who started this program are still in the Third level and there is no graduates from this program until now. This program report is an incomplete report and it aims to monitor the education process in the academy and the procedure of following up the defects that arises and how these defects can be removed.

#### 1.2 External Evaluators:

- **Prof. Dr Tawfik Tawfik M. El-Midani:** Professor of Production Engineering, Production Engineering and Mechanical Design Department, Faculty of Engineering, Mansoura University.
- **Prof. Dr. Fatheya Abdelhady Soliman,** Emeritus Professor- Mechanical Design & Production Department, Faculty of Engineering, Cairo University.

### Comments of external evaluator and other stakeholders

#### **a) Comments of stakeholders:**

- 1) The department, as a part of the modern academy for engineering and technology has been established according to the decree no. 2003 dated 25/10/2000 and modified by the ministerial decree no. 296 dated 5/3/2002. The credit hour system has been introduced starting 2012/2013.
- 2) The major area for students studying in the department is manufacturing engineering and Production technology. However, other major can be easily added as most of the needed subjects and most of the needed laboratories, as well as the needed teaching staff already exist.
- 3) Advanced and modern manufacturing methods are included in the curricula of the department.
- 4) Other important aspects of the educational system are totally regarded, that includes; implementation methods and techniques, full awareness of technical systems and computer related use.
- 5) Development of research skills and teamwork through the preparation of project research documents, fourth year and fifth year projects, and gathering data from similar projects.

## b) Comments of external evaluator

As the external evaluators reports were performed for the relevant program two years ago, and as this is the first program report for the credit hours system, the comments of the external reviewers will be stated.

### 1) First Evaluator

Reviewer Comment

Coordinator Response

- The basic information included is accurate, specific and consistent with the rest of the program specifications.
- The program has a designated coordinator/coordinating team.
- Basic information listed is according to the ministerial decrees mentioned above.
- The department council has chosen the program coordinator and the coordinating team.

### 2) Second Evaluator

Reviewer Comment

Coordinator Response

- The basic information included is accurate, specific and consistent with the rest of the program specifications.
- The program has a designated coordinator/coordinating team.
- Basic information listed is according to the ministerial decrees mentioned above.
- The department council has chosen the program coordinator and the coordinating team.

## 2. Professional Information

### 2.1 Statistics

1-No. of students starting the program at 2013 - 2014 were 219 (students accepted in the Academy the academic year 2012/2013 were 1100 students with a ratio 19.9 %

**Table (1): No. and percentage of students passing in each year/level/semester**

Level		Number of students	Percentage of passing students
First	2013-2014	218	NA
Second	2014-2015	172	NA
Third	2015-2016	113	N/A

### 2.2 Academic Standards

#### 2.2.1 Achievement of program intended learning outcomes, ILO's:

##### A1.2 Curriculum Mapping Matrices

The following four tables include the contribution of the program courses in the program ILO's.

Table A1-2 Program Mapping Matrix; Courses/Knowledge and Understanding (A's)

Code	Subject	Program Intended Learning Outcomes (A)																							
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
GEN 141	Contemporary Social Issues									1	1														
GEN 142	English Language									1	1														
GEN 143	History of Engineering and Technology	1				1			1	1	1				1										
GEN 241	presentation skills									1	1		1												
GEN 242	Technical Report Writing				1						1	1													
GEN 351	Elective 2	1	1			1		1							1				1						
GEN 453	Elective 3				1					1		1							1	1					
GEN 352	Elective 5					1	1			1	1	1													
GEN 353	Management & International Business						1	1			1		1								1				
GEN 354	Sound System and Noise Pollution	1							1			1													
GEN 454	Basics of Engineering Syndicate Works							1	1	1	1	1		1											
CHE 100	Chemistry	1		1	1	1			1			1	1												
CMP 110	Program Design and Computer Language	1	1		1	1			1					1			1								
MEC 101	Mechanics-1	1	1	1	1																				
MEC 102	Mechanics-2	1	1	1	1	1																			
MTH 101	Math-1 (Algebra and Calculus)	1	1			1																			
MTH 102	Math-2 (Integration and Analytic Geometry)	1		1		1						1	1												
MTH 203	Math-3 (Differential Equations and Transforms)	1	1																						
MTH 207	Math-7 (Numerical Analysis)	1				1																			
MTH 305M	Math-5 (Introduction to Probability and Statistics)	1	1			1																			
PHY 101	Physics-1	1	1	1		1	1		1				1												
PHY 102	Physics-2	1		1	1	1								1	1	1									
ELC 316	Electro Engineering	1	1	1	1	1																			
ELC 317	Electric Machines	1	1	1	1	1									1	1	1								
MNF 100	Introduction to Engineering Materials		1	1	1														1						
MNF 101	Eng. Graphics		1		1	1			1		1														
MNF 102	Principles of Production Engineering	1	1		1																				
MNF 211	Mechanics of materials			1	1	1					1			1					1						
MNF 212	Fundamentals of materials Science		1	1	1														1						
MNF 213	Mechanics of Machines-1	1												1											
MNF 214	Machine Drawing-1		1	1	1		1				1			1					1						
MNF 215	Mechanics of Machines-2	1		1	1																				
MNF 216	Machine Drawing-2		1			1	1												1	1					
MNF 311	Fluid Mechanics	1	1	1	1	1								1	1				1	1					
MNF 312	Computer Applications-1			1	1																				
MNF 313	Computer Applications-2	1				1	1		1					1		1	1		1				1		
MNF 314	Thermodynamics	1	1	1	1	1			1				1	1					1						
MNF 411	Mechanical Measurements			1	1																				
MNF 412	Industrial Operations Research	1	1			1							1		1		1								
MNF 413	Automatic Control	1		1	1	1										1									
MNF 511	Quality Control and Quality Management						1								1						1	1			1
MNF 431	Elective 1	1	1	1	1									1					1						
MNF 432	Elective 1	1		1	1	1								1											
MNF 433	Elective 1	1				1		1	1											1	1				
MNF 221	Metal Cutting Processes			1					1		1		1	1											
MNF 222	Materials Technology and Testing		1	1	1														1						
MNF 321	Metals Cutting Theory	1		1		1			1		1		1		1										
MNF 322	Machine Design-1		1	1	1														1						
MNF 323	Foundry Technology	1			1				1			1		1					1	1					
MNF 324	Machine Design-2		1	1	1														1						
MNF 325	Engineering Metrology			1	1											1									
MNF 421	Joining Processes	1			1				1					1					1	1					
MNF 422	Computer Numerical Control, CNC Machines	1							1					1		1	1	1				1	1	1	
MNF 423	Computer Aided Design (CAD)	1	1		1				1				1	1	1	1		1	1						
MNF 424	Advanced Materials and Composite			1					1				1	1											1
MNF 425	Modern Manufacturing Methods	1	1	1	1										1	1						1			
MNF 521	Computer Aided Manufacturing (CAM)	1			1	1			1				1	1		1						1	1		
MNF 522	Hydraulic Power Systems	1	1	1	1	1			1																
MNF 523	Production Aids Design	1			1										1				1						
MNF 524	Industrial Thermal Systems				1									1					1						
MNF 531	Elective 4	1		1		1			1						1			1	1						
MNF 532	Elective 4	1		1	1									1					1						1
MNF 533	Elective 6				1				1				1	1				1	1			1			1
MNF 534	Elective 6					1			1			1	1				1					1		1	
MNF 535	Elective 7		1	1	1									1											
MNF 536	Elective 6	1	1	1	1																				
MNF538	Elective 4	1		1	1				1										1	1		1			

MNF 530	Elective 7			1					1				1	1	1						1			
MNF 537	Elective 7	1		1					1				1	1				1			1			
MNF 361	Seminar-1.									1		1		1										
MNF 362	Seminar-2.									1		1		1										
MNF 461	Project-1														1					1				
MNF 462	Industrial Training(1)																		1	1				
MNF 551	Elective 3	1		1	1		1		1	1		1	1							1				
MNF 552	Elective 3	1		1	1					1		1												
MNF 553	Elective 5					1				1		1			1			1		1				
MNF 561	Project-2a														1					1				
MNF 562	Industrial Training(2)																		1	1				
MNF 563	Project-2b														1					1				



Table A1-3 Program Mapping Matrix; Courses/Intellectual Skills (B's)

Code	Subject	Intellectual skills (B)																					
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
GEN 141	Contemporary Social Issues				1					1			1										
GEN 142	English Language				1																		
GEN 143	History of Engineering and Technology	1	1				1	1															
GEN 241	presentation skills													1									
GEN 242	Technical Report Writing				1																		
GEN 351	Elective 2	1	1					1	1					1									
GEN 453	Elective 3			1		1				1													
GEN 352	Elective 5			1	1					1			1										
GEN 353	Management & International Business			1	1	1				1	1												
GEN 354	Sound System and Noise Pollution				1									1		1							
GEN 454	Basics of Engineering Syndicate Works								1	1		1		1									
CHE 100	Chemistry	1	1	1	1		1		1		1		1										
CMP 110	Program Design and Computer Language	1	1	1	1			1					1	1	1			1	1				
MEC 101	Mechanics-1	1	1																				
MEC 102	Mechanics-2	1	1			1								1		1							
MTH 101	Math-1 (Algebra and Calculus)	1	1	1				1															
MTH 102	Math-2 (Integration and Analytic Geometry)	1	1	1	1			1				1											
MTH 203	Math-3 (Differential Equations and Transforms)	1	1	1				1															
MTH 207	Math-7 (Numerical Analysis)	1	1	1									1										
MTH 305M	Math-5 (Introduction to Probability and Statistics)	1	1	1				1				1											
PHY 101	Physics-1	1	1	1				1															
PHY 102	Physics-2		1	1	1	1	1							1		1							
ELC 316	Electro Engineering	1	1			1				1				1	1	1							
ELC 317	Electric Machines		1	1			1			1		1											
MNF 100	Introduction to Engineering Materials	1	1			1								1		1		1					
MNF 101	Eng. Graphics			1		1		1	1	1													
MNF 102	Principles of Production Engineering		1	1							1								1				
MNF 211	Mechanics of materials					1	1	1						1	1			1					
MNF 212	Fundamentals of materials Science	1	1			1								1		1		1					
MNF 213	Mechanics of Machines-1	1												1									
MNF 214	Machine Drawing-1			1	1				1										1				
MNF 215	Mechanics of Machines-2	1				1								1	1	1							
MNF 216	Machine Drawing-2			1	1				1										1				
MNF 311	Fluid Mechanics	1	1					1						1				1					
MNF 312	Computer Applications-1			1	1				1										1				
MNF 313	Computer Applications-2							1						1					1				1
MNF 314	Thermodynamics	1	1	1		1								1				1					
MNF 411	Mechanical Measurements				1	1			1		1						1				1		
MNF 412	Industrial Operations Research	1	1	1				1	1			1		1				1					
MNF 413	Automatic Control	1				1								1		1							
MNF 511	Quality Control and Quality Management				1	1						1											
MNF 431	Elective 1	1	1			1								1			1						
MNF 432	Elective 1	1	1											1									
MNF 433	Elective 1							1	1							1			1				
MNF 221	Metal Cutting Processes			1						1			1			1							
MNF 222	Materials Technology and Testing	1	1			1								1		1		1		1			
MNF 321	Metals Cutting Theory	1		1						1			1						1	1			
MNF 322	Machine Design-1		1			1	1							1									
MNF 323	Foundry Technology	1	1	1		1	1							1		1							
MNF 324	Machine Design-2		1			1	1							1									
MNF 325	Engineering Metrology				1	1			1			1			1		1				1		
MNF 421	Joining Processes		1	1		1	1							1			1					1	1
MNF 422	Computer Numerical Control, CNC MACHINES	1	1	1															1				
MNF 423	Computer Aided Design (CAD)	1	1	1		1			1			1		1		1							
MNF 424	Advanced Materials and Composite		1	1				1					1					1	1	1			
MNF 425	Modern Manufacturing Methods		1							1	1				1				1				
MNF 521	Computer Aided Manufacturing (CAM)	1	1	1		1			1					1				1					
MNF 522	Hydraulic Power Systems	1	1			1				1				1	1	1							
MNF 523	Production Aids Design	1	1	1															1				
MNF 524	Industrial Thermal Systems	1	1				1							1									
MNF 535	Elective 7	1		1		1																	1
MNF 538	Elective 4	1		1	1	1	1		1	1			1		1				1				1
MNF537	Elective 7	1				1				1				1	1			1					
MNF 531	Elective 4	1	1	1		1		1				1		1				1					
MNF 532	Elective 4						1					1											
MNF 533	Elective 6		1	1		1																	
MNF 530	Elective 7	1			1				1						1	1			1				

MNF 551	Elective 3	1	1		1							1				1	1	1						
MNF 552	Elective 3									1														
MNF 553	Elective 5	1	1							1	1			1	1		1							
MNF 361	Seminar-1.		1					1		1	1													
MNF 362	Seminar-2.		1					1		1	1													
MNF 461	Project-1	1		1									1							1				
MNF 462	Industrial Training(1)				1								1											
MNF 561	Project-2a	1		1									1							1				
MNF 562	Industrial Training(2)				1								1											
MNF 563	Project-2b	1		1									1							1				
MNF 534	Elective 6	1	1											1	1		1		1					1
MNF 536	Elective 6	1	1			1								1			1			1				

Table A1-4 Program Mapping Matrix; Courses/ Professional and practical skills (C's)

Code	Subject	Professional and practical skills C's																					
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
GEN 141	Contemporary Social Issues	1				1																	
GEN 142	English Language											1	1										
GEN 143	History of Engineering and Technology	1				1																	
GEN 241	presentation skills											1											
GEN 242	Technical Report Writing		1		1								1	1									
GEN 351	Elective 2	1				1		1		1													
GEN 453	Elective 3		1		1				1														
GEN 352	Elective 5	1				1				1													
GEN 353	Management & International Business	1				1																	
GEN 354	Sound System and Noise Pollution			3													1						
GEN 454	Basics of Engineering Syndicate Works										1	1	1	1									
CHE 100	Chemistry	1	1	1		1			1				1										
CMP 110	Program Design and Computer Language	1	1	1	1	1	1	1								1	1						
MEC 101	Mechanics-1	1	1																				
MEC 102	Mechanics-2	1		1		1																	
MTH 101	Math-1 (Algebra and Calculus)	1											1										
MTH 102	Math-2 (Integration and Analytic Geometry)	1						1															
MTH 203	Math-3 (Differential Equations and Transforms)	1											1										
MTH 207	Math-7 (Numerical Analysis)	1				1		1															
MTH 305M	Math-5 (Introduction to Probability and Statistics)	1	1										1										
PHY 101	Physics-1	1	1			1						1											
PHY 102	Physics-2	1				1			1			1			1								
ELC 316	Electro Engineering	1		1		1	1						1				1	1					
ELC 317	Electric Machines	1			1	1			1														
MNF 100	Introduction to Engineering Materials	1	1																	1			
MNF 101	Eng. Graphics		1	1	1							1		1									
MNF 102	Principles of Production Engineering	1		1				1															
MNF 211	Mechanics of materials	1		1		1			1				1										
MNF 212	Fundamentals of materials Science	1	1																	1			
MNF 213	Mechanics of Machines-1	1																					
MNF 214	Machine Drawing-1	1	1	1							1				1								
MNF 215	Mechanics of Machines-2	1		1		1	1		1		1												
MNF 216	Machine Drawing-2	1	1								1			1	1								
MNF 311	Fluid Mechanics		1	1		1							1				1	1					
MNF 312	Computer Applications-1	1	1	1							1				1		1					1	
MNF 313	Computer Applications-2	1	1			1			1		1			1	1		1				1	1	
MNF 314	Thermodynamics	1	1			1						1	1				1	1		1			
MNF 411	Mechanical Measurements		1	1		1											1						
MNF 412	Industrial Operations Research	1	1					1	1				1					1					
MNF 413	Automatic Control	1				1											1	1					
MNF 511	Quality Control and Quality Management										1							1					
MNF 431	Elective 1	1				1	1	1									1						
MNF 432	Elective 1	1	1	1														1					
MNF 433	Elective 1	1	1																	1			
MNF 221	Metal Cutting Processes						1		1			1				1				1			
MNF 222	Materials Technology and Testing	1	1																	1			
MNF 321	Metals Cutting Theory	1	1			1	1		1				1					1					
MNF 322	Machine Design-1	1		1									1	1									
MNF 323	Foundry Technology	1		1		1	1						1	1			1	1					
MNF 324	Machine Design-2	1		1									1	1									
MNF 325	Engineering Metrology		1	1		1											1						
MNF 421	Joining Processes	1		1		1	1						1	1			1	1					1
MNF 422	Computer Numerical Control, CNC MACHINES					1									1	1		1	1				
MNF 423	Computer Aided Design (CAD)	1	1																				
MNF 424	Advanced Materials and Composite			1		1			1							1		1		1		1	1
MNF 425	Modern Manufacturing Methods														1	1	1	1	1				
MNF 521	Computer Aided Manufacturing (CAM)	1	1			1	1			1	1		1		1			1					
MNF 522	Hydraulic Power Systems	1		1		1	1						1				1	1					
MNF 523	Production Aids Design	1		1																			
MNF 524	Industrial Thermal Systems	1	1	1														1					
MNF 531	Elective 4	1				1	1	1										1		1			
MNF 532	Elective 4				1												1	1					
MNF 533	Elective 6		1	1						1		1			1							1	

MNF 534	Elective 6					1	1	1							1							1
MNF 535	Elective 7	1	1	1		1	1													1		
MNF 536	Elective 6	1				1	1	1								1						
MNF 537	Elective 7	1	1	1		1	1					1	1				1					
MNF 538	Elective 4	1		1		1	1					1	1				1	1				1
MNF 530	Elective 7		1	1			1										1	1			1	
MNF 361	Seminar-1.	1	1							1												
MNF 362	Seminar-2.	1	1							1												
MNF 461	Project-1	1	1			1				1			1	1			1		1			
MNF 462	Industrial Training(1)	1														1			1	1		
MNF 551	Elective 3									1		1	1									
MNF 552	Elective 3									1												
MNF 553	Elective 5	1	1	1		1	1	1				1										
MNF 561	Project-2a	1	1			1				1			1	1			1		1			
MNF 562	Industrial Training(2)	1														1			1	1		
MNF 563	Project-2b	1	1			1				1			1	1			1		1			

Table A1-5 Curriculum Mapping Matrix Courses/General Transferrable skills (D's)

Code	Subject	General and transferable skills (D)								
		01	02	03	04	05	06	07	08	09
GEN 141	Contemporary Social Issues	1		1				1		1
GEN 142	English Language	1	1	1	1		1	1	1	
GEN 143	History of Engineering and Technology	1						1	1	
GEN 241	presentation skills	1	1	1		1		1		
GEN 242	Technical Report Writing						1		1	
GEN 351	Elective 2	1	1	1				1		1
GEN 453	Elective 3	1	1				1			1
GEN 352	Elective 5	1		1				1		1
GEN 353	Management & International Business	1		1				1		1
GEN 354	Sound System and Noise Pollution	1		1					1	
GEN 454	Basics of Engineering Syndicate Works	1	1	1			1	1		
CHE 100	Chemistry	1	1	1	1	1		1		
CMP 110	Program Design and Computer Language	1		1	1	1		1		1
MEC 101	Mechanics-1	1	1							
MEC 102	Mechanics-2	1	1							
MTH 101	Math-1 (Algebra and Calculus)			1				1		
MTH 102	Math-2 (Integration and Analytic Geometry)	1		1				1		
MTH 203	Math-3 (Differential Equations and Transforms)			1				1		
MTH 207	Math-7 (Numerical Analysis)			1	1			1		
MTH 305M	Math-5 (Introduction to Probability and Statistics)			1				1		
PHY 101	Physics-1	1	1	1	1		1			1
PHY 102	Physics-2	1		1	1	1		1		
ELC 316	Electro Engineering	1		1				1		1
ELC 317	Electric Machines		1	1			1	1		
MNF 100	Introduction to Engineering Materials	1		1				1		1
MNF 101	Eng. Graphics	1		1						1
MNF 102	Principles of Production Engineering	1		1				1		1
MNF 211	Mechanics of materials	1		1						1
MNF 212	Fundamentals of materials Science	1		1				1		1
MNF 213	Mechanics of Machines-1	1		1				1		1
MNF 214	Machine Drawing-1	1		1						1
MNF 215	Mechanics of Machines-2	1		1				1		
MNF 216	Machine Drawing-2	1				1				1
MNF 221	Metal Cutting Processes	1		1				1		1
MNF 222	Materials Technology and Testing	1		1				1		1
MNF 311	Fluid Mechanics	1	1	1		1				
MNF 312	Computer Applications-1	1		1						1
MNF 313	Computer Applications-2	1			1					
MNF 314	Thermodynamics	1		1				1	1	
MNF 321	Metals Cutting Theory	1		1				1		1
MNF 322	Machine Design-1		1	1				1		1
MNF 323	Foundry Technology	1		1				1		1
MNF 324	Machine Design-2		1	1				1		1
MNF 325	Engineering Metrology		1							
MNF 361	Seminar-1.			1			1	1		
MNF 362	Seminar-2.			1			1	1		
MNF 411	Mechanical Measurements		1							
MNF 412	Industrial Operations Research	1		1			1	1		1
MNF 413	Automatic Control			1	1			1		
MNF 421	Joining Processes	1		1				1		1
MNF 422	Computer Numerical Control, CNC MACHINES	1		1			1			
MNF 423	Computer Aided Design (CAD)				1	1				
MNF 424	Advanced Materials and Composite			1	1			1	1	1
MNF 425	Modern Manufacturing Methods	1		1	1			1		1
MNF 431	Elective 1	1		1				1		1
MNF 432	Elective 1	1		1				1		1
MNF 433	Elective 1	1		1				1		1
MNF 461	Project-1			1			1	1		
MNF 462	Industrial Training(1)			1			1	1		
MNF 511	Quality Control and Quality Management	1		1				1		
MNF 521	Computer Aided Manufacturing (CAM)	1			1					
MNF 522	Hydraulic Power Systems	1		1	1			1		1
MNF 523	Production Aids Design	1		1				1		1
MNF 524	Industrial Thermal Systems	1		1				1		1
MNF 530	Elective 7	1		1				1		
MNF 531	Elective 4	1		1	1		1			
MNF 532	Elective 4	1						1		1
MNF 533	Elective 6	1		1	1					

MNF 534	Elective 6	1		1	1			1		1
MNF 535	Elective 7		1	1	1					1
MNF 536	Elective 6	1		1				1		1
MNF 537	Elective 7	1		1	1			1		1
MNF 538	Elective 4	1		1				1		1
MNF 551	Elective 3	1	1	1			1			
MNF 552	Elective 3	1		1			1	1		1
MNF 553	Elective 5	1		1	1			1		1
MNF 561	Project-2a			1			1	1		
MNF 562	Industrial Training(2)			1			1	1		
MNF 563	Project-2b			1			1	1		

The preceding four tables includes the mapping matrix relating the program courses with the program ILO's. The program ILO's contributed by each course were determined in the course specification, **Appendix 2**. These tables showed that the program courses gave balanced coverage of the program ILO's.

## Comments of external evaluator and other stakeholders

### 1- Basic Information

#### a) Comments of stakeholders:

- 1) Addition of new design software packages and modernization of laboratories are a continuous trend for improving the educational process.
- 2) Full knowledge of relevant scientific methods and software packages of the design process of mechanical systems is emphasized.
- 3) A very strong interest in new trends and advanced methods of production, which help in manufacturing of precise products of mechanical systems as well as other classical manufacturing means.
- 4) Ergonomics and human needs as a user of space and his comfort is a priority.
- 5) Other important aspects of the educational system is totally regarded, that includes; implementation methods and techniques, computer related use.
- 6) Full knowledge of design process are taught, to provide methods of applying functional, environmental, social and economic aspects of design.
- 7) Development of research skills and teamwork through the execution of projects during fourth and fifth years.

#### b) Comments of external evaluator

##### 1) First Evaluator

###### Reviewer Comment

###### ➤ Program Aims

- The aims are consistent with the degree awarded by completion of the program.
- The program aims are clearly stated.
- The aims specify the most important knowledge skills and attitudes students should gain after completing the program.

###### Coordinator Response

- The department council agreed upon the aims of the program.

##### 2) Second Evaluator

###### Reviewer Comment

###### ➤ Program Aims

- The aims are consistent with the degree awarded by completion of the program.
- The program aims are clearly stated.
- The aims specify the most important knowledge skills and attitudes students should gain after completing the program.

###### Coordinator Response

- The department council agreed upon the aims of the program.

## 2- Professional Information

### a) Comments of stakeholders:

The academy is applying a real advanced teaching system, based upon maintaining balance between theoretical fundamentals and practical application, emphasizing coherence and integration among the study, development requirements of products and generally industry, and technological means (classical and/or advanced).

The teaching system is based upon advanced teaching techniques using illustrations and experimental models to clarify the relation between different parameters associated in a certain phenomenon. Manual drawing skills are first developed to help student acquire presentation skills. The academy also develops design skills using modern computer programs packages starting with Auto Cad up to the very sophisticated levels of 3- D programs.

### b) Comments of external evaluator

#### 1) First Evaluator

##### Reviewer Comment

##### ➤ Intended Learning Outcomes (ILOs)

- The program ILO's are clearly stated.
- The program ILO's are appropriately coded.
- Consistent with the program aims.
- Program ILO's are adequately fulfilled by the program courses.
- Cover the minimum requirements in accordance with the awarded degree in terms of : Knowledge, Professional & Practical skills, Intellectual capabilities, and General and transferable skills.
- Program ILO's cope with recent advances in the field of specialty.

##### ➤ Academic Reference Standard

- The academic Reference standards of the program are clearly stated.
- The reference standards used as a benchmark are specified.
- The degree to which the academic standards of the program measure up to the specified benchmark (they fall below it).

##### ➤ Curriculum Structure and Contents

##### ✓ Program duration

- The minimum duration specified is adequate to fulfill the program activities & objectives.

##### ✓ Program Structure

- The number of hours required to complete the program are specified and adequate.
- Distribution of the hours as compulsory, elective, and optional is acceptable.
- The following areas are adequately covered in the program (Social sciences and humanities, Basic science course. Specialized courses. Practical/Field training).
- No other courses should be included in the program.

##### Coordinator Response

- The department adopted the ARS as the academic reference standard and considered the ARS intended learning outcomes as the program ILO's. Moreover, the courses ILO's are stated in detail in the courses specifications. They agree, in general, with the program ILO's

- The department adopted the ARS standard as a reference academic standard.

- The duration of the program has been determined according to ARS standard. Also the number of hours and their distribution to different areas are according to ARS.

#### 2) Second Evaluator

##### Reviewer Comment

##### ➤ Intended Learning Outcomes (ILOs)

- The program ILO's are clearly stated.
- The program ILO's are appropriately coded.
- Consistent with the program aims.

##### Coordinator Response

- The department adopted the NARS as the academic reference standard and considered the NARS intended learning outcomes as the program ILO's.

- The program ILO's are adequately fulfilled by the program courses.
  - Cover the minimum requirements in accordance with the awarded degree in terms of : Knowledge, Professional & Practical skills, Intellectual capabilities, and General and transferable skills.
  - The program ILO's cope with recent advances in the field of specialty.
  - **Academic Reference Standard**
    - The academic Reference standards of the program are clearly stated.
    - The reference standards used as a benchmark are specified.
    - The degree to which the academic standards of the program measure up to the specified benchmark \* they fall below it).
  - **Curriculum Structure and Contents**
    - ✓ Program duration
      - The minimum duration specified is adequate to fulfill the program activities & objectives.
    - ✓ Program Structure
      - The number of hours required to complete the program are specified and adequate.
      - Distribution of the hours as compulsory, elective, and optional is acceptable.
      - The following areas are adequately covered in the program (Social sciences and humanities, Basic science course. Specialized courses. Practical/Field training).
      - No other courses should be included in the program.
- Moreover, the courses ILO's are stated in detail in the courses specifications. They agree, in general, with the program ILO's
- The department adopted the ARS standard as a reference academic standard.
  - The duration of the program has been determined according to ARS standard. Also the number of hours and their distribution to different areas are according to ARS.

### 3- Regulation & Evaluation

#### a) **Comments of stakeholders:**

- 1) There should be an orientation courses for first year student after finishing their academic year to properly guide students to their specialization. Also, student choice of different department should be constrained according to some qualifying courses.

#### b) **Comments of external evaluator**

##### 1) **First Evaluator**

###### Reviewer Comment

- The program admission requirements are clearly specified and matching the school bylaws.
- The regulation for progression and program completion are clearly specified and matching the school bylaws.
- The methods used for program evaluation are adequate.

###### Coordinator Response

- The program admission requirements have been applied according to the law No. 52 of 1970, on the organization of private colleges and institutes regulations issued Ministerial Resolution No. 1088 for the year 1987 and amended decisions.
- Methods used to evaluate the program are student questionnaire, external reviewers, and stakeholders' comments.



## 2) Second Evaluator

### Reviewer Comment

- The program admission requirements are clearly specified and matching the school bylaws.
- The regulation for progression and program completion are clearly specified and matching the school bylaws.
- The methods used for program evaluation are adequate.

### Coordinator Response

- The program admission requirements have been applied according to the law No. 52 of 1970, on the organization of private colleges and institutes regulations issued Ministerial Resolution No. 1088 for the year 1987 and amended decisions.
- Methods used to evaluate the program are student questionnaire, external reviewers, and stakeholders' comments.

## 4- Program Courses

### a) Comments of stakeholders:

Program courses were very well prepared. Courses specifications include listing of lecture notes, in addition to reference books and recommended references.

The data of some references should be updated and be in the standard form according to the formal form used in course specification.

Minor topics should be changed and repetitions of the same topic in different courses should be resolved.

### b) Comments of external evaluator

#### 1) First Evaluator

##### Reviewer Comment

- There are some courses, course notes, required books, and recommended books not specified or no published date.
- There is a new edition for some basic sciences courses.
- For many books published dates are required.
- Required books & recommended books must be updated.
- General Note: A lot of books and references should be updated.

##### Coordinator Response

- Course notes have been added to the course specifications.
- The mentioned courses are basic science courses; new editions will be added.
- Publishing dates have been added to some books.
- Updating of references will be carried out.

#### 2) Second Evaluator

##### Reviewer Comment

- ILO s of some courses needs to be revised.
- Student's assessment/ILOs matrix in some courses should be corrected.
- Verbs used to describe ILO's need to be revised ( marked in documents)
- Facilities required for teaching and learning in many courses need to be completed.
- Recommended books and required one need to be completed.
- ILO's of some courses cannot be measured and need to be revised ( marked in documents)

##### Coordinator Response

- ILO's have been revised for all courses.
- The errors which have been found in student assessment methods and ILO's matrix will be corrected.
- The ILO's have been revised and corrected
- There are different facilities for teaching and learning and every teaching staff has laid down the facilities that he actually apply.
- The ILO's have been revised and corrected

## **5- Overall Evaluator Opinion & Free Comments**

### **a) Comments of stakeholders:**

None

### **b) Comments of external evaluator**

#### **1) First Evaluator**

Reviewer Comment

- Generally this program is considered up to standard if compared with other similar programs, and I am sure that a lot of effort has been carried out to present this report in this honorable form.

Coordinator Response

- The program has been prepared according to ARS.

#### **2) Second Evaluator**

Reviewer Comment

- None

Coordinator Response

## **2.3 Achievement of program aims**

Reviewing the achieved program aims covered by the achievement of the different educational aims in the courses, which vary from one course to another according to the course nature, It has been noticed fully achievement of program aims which are:

- 1- Providing practical professionally supervised summer training programs.
- 2- Applying and developing advanced teaching methods.
- 3- Considering and implementation of continual development of taught curricula.
- 4- Maintaining balance between theoretical fundamentals and practical application.
- 5- Emphasizing coherence and integration between theoretical and applied courses and the needs of manufacturing engineering and production technology in general and specifically the advanced and new trends.
- 6- Broadening the scope of taught courses, enriching their content by studying some case studies and experiences and preparing seminars.
- 7- Engaging students of third and fifth years in realistic research work through their projects that give a good reflection of student ability to grasp knowledge and different skills from different courses.

## **2.4 Assessment methods**

- The department evaluates the students using various methods such as final exam, midterm exam, oral exams, weekly or biweekly assignments, quizzes, practical exam, seminars, and researches, according to the course structure and assessment methods mentioned in courses specifications.
- The assessment methods must cover the intended learning outcomes mentioned in the course specification. The teaching staff and the head of the department are keen on revising the examinations sheets to be sure that they cover at least 80 % of the course content.
- The final grade awarded to student in a course is usually based on the grades for both final exam and semester work and for some courses, the evaluation of practical and/or oral exam is also included.

## **2.5 Student achievement**

**Comments of external evaluator and other stakeholders on statistics from Section B:**

**a- Comments of stakeholders:**

- Students are coping well with the learning system and, methods implemented at the academy. They became familiar to hard work, libraries, books, periodicals, as well as, to computer use and internet. They present very well seminars, able to work in groups; each member of the group is executing his task efficiently.
- The applied system implies discipline and help student form hard work habit. Libraries, field and research work help developing analytical skills. Seminars help developing presentation skills.

**b- Comments of external evaluators :**

**1- First Evaluator**

None

**2- Second Evaluator**

None

## **2.6 Quality of teaching and learning**

### **Comments of external evaluator and other stakeholders including students**

**a- Comments of stakeholders**

- The Academy adopt methods of teaching and learning based on traditional patterns of education courses that meet the goals and targets that are taught in accordance with the approved list.
- The formation of a committee of faculty members to study the distribution of subjects on the staff members in accordance with the teaching specialty to ensure the quality of teaching and learning.
- The diversity in summer training programs according to the variables and labor market needs and requirements of the parties outside the academy.
- The development of strategies and announcements of the Department through regular monthly meetings with faculty members and once per term meeting with teaching assistants to develop and discuss the plan of action and put forward solutions to problems that are reviewed.
- Some of the decisions are being taken corrective actions to keep high performance of the teaching process in the department as the results of self-evaluation.
- Ongoing work of the internal audit and continuous assessment tasks.

**b- Comments of external evaluators :**

**1- First Evaluator**

None

**2- Second Evaluator**

None)

## **2.7 Effectiveness of student support systems**

### **Commentary on both academic and pastoral/personal support for all students**

The department is interested in the students' support through the following:

- Students of the same level are divided into classes; each includes at most 30 students that have exercise for each course in a special class and period. However inside the laboratories the class is divided into groups; each includes no more than 6 students; to carry out the assigned experiment under the supervision of specialized engineers.

- Motivate outstanding students to participate in seminars, cultural activities, academic research projects and attending scientific conferences. Also, they got additional marks according to the extent of their activities.
- Each level of students has a faculty member as a counselor that helps in solving students' problems (educational, social, economic, etc...). The counsellors, also, follow-up the complaints and respond in a specific period.
- The counselor held a periodic meeting with students to build a good relation and help in solving their problems.
- There is a schedule of final revision for the studied courses at the end of each semester to assist low and middle caliber students.
- Students are helped in the case of special circumstances such as cases of disease, the death of a parent, injuries during an incident, by taking into account the circumstances of each case in providing the requirements of this year, especially in materials that rely on semester marks and attendance.
- Encourage students to manage, and organize cultural activities.
- Establishing a database for students and save all the data and grades of the year in electronic archive for each student

## **2.8 Learning resources**

### **A. Number and ratio of faculty members and their assistants to students**

- Staff members and the assistants (Appendix 1 - Program Specification )
- Percentage of staff members to students : 1:25
- Percentage of staff assistants to students : 1:15

### **B. Matching of faculty members' specialization to program needs.**

- All the Staff members are Qualified and they are adapted with the program requirements. (C.V. for all staff members are included in H.R. document))

### **C. Availability and adequacy of program handbook**

- The program specification is explained to the students attending the program through interviews with the students, in addition there are lecture notes for most of the courses available to the students.

### **D. Adequacy of library facilities.**

- The academy scientific library is annually refurnished with the books needed for enriching the specialty according to the budget.

### **E. Adequacy of laboratories**

- The department has 18 laboratories serving different courses taught in the department.
- A computer laboratory consists of 34 computers is specified to the department to help in teaching 6 courses.
- The department is going to buy a virtual lab. That can help for teaching the lab for a lot of courses

### **F. Adequacy of computer facilities**

- Labs are in need of increase of the instruments to cope with the increasing number of students attending the program and to build virtual labs that help in teaching different courses in the dept.
- Renovation of the design software packages periodically.

### **G. Adequacy of field/practical training resources**

- The department is keen on the compatibility of the summer training programs with the program specification and the requirements of the labor market. Care to provide opportunities for all students of the department with the diversity of training sites.

### **H. Adequacy of any other program needs**

None

## **2.9 Quality management**

### **A. Availability of regular evaluation and revision system for the program**

There is a unit for Quality Assurance in the department began its course of action by doing self-assessment to the department at the end of the academic year 2009/2010, in order to identify and develop the strength points and to identify and treat the weak points (SWOT). The views of all interested parties (faculty members, their assistants, students, the administrative bodies, representatives of civil society, and stakeholders) in the courses and the educational process have been explored, and sample of students has been taken (10%) of the total number of students of the college. As for the faculty members, they were asked all and for the administrative apparatus, the sample (30%) of the total number has been analyzed. The results of the poll were statistically analyzed then a view of these results was discussed with the College Board to take decisions on further development.

### **The results of self-evaluation and quality management**

#### **Reflection of the results of self-evaluation of the department performance on quality management**

Work is already underway to make some decisions for correcting the overall performance of the department in light of the results of self-evaluation Examples of such decisions:

- The work of the internal audit and continuous assessment with identified tasks.
- Work is permanently and continuously to develop the capacity of faculty members.
- The department is interested in students and alumni, and follows up their proceeding in the labor market, to improve the outcomes and competitive position within the community.

### **Strengthening activities for Quality Management**

It was possible to identify some areas for future promotion and development in the light of the results of self-evaluation of the performance of the department and of these areas.

Strengthening the quality management in the department through:

- The continued development of the courses objectives with global trends.
- Developing the skills of the administrative apparatus in the use of technology.
- Prepare an annual plan for periodic maintenance of institutional facilities.
- Preparation of a 3 year plane to hire staff members and assistances to modify the their ratios to the number of students.

### **B. Effectiveness of the system**

The quality management system is effective since there are:

- Quality management regulations.
- Enforcing and application of the quality measures for all aspects of the teaching process.
- Feedback for the program evaluation.
- Corrective actions for program flaws.
- Recording and listing all these activities in annual course reports and in the program report

### **C. Effectiveness of Faculty and University laws and regulations for progression and completion**

There is a quality section in the department which is a subordinate from the quality center of the Academy. Its role is not only monitoring and assuring the implementation of the quality measures in the department but also to plane, manage, and help in execution of quality measures of the academy.

### **D. Effectiveness of program external evaluation system:**

#### **I- External evaluators**

The department program is evaluated by two qualified external evaluators.

#### **II- Students**

The program courses, the teaching methods and the assessment methods are evaluated by students each semester by questionnaires handed to a sample of students for each course. As for the fifth year students, they fill in addition to the courses questionnaires another one concerned with the program questionnaire to evaluate the whole program.

#### **III- Other stakeholders**

At the end of the academic year, there is an annual meeting for the stakeholders and representatives of the civil community for the reconnaissance of their evaluation to the academic year.

### **E. Faculty response to student and external evaluations**

All the external evaluator's comments were taken in consideration and are stated with the department response in the "Program Specification".

There is an action plan set to be implemented in the following academic year.

## **3. Proposals for program development**

### **A Courses, deletions, additions, and modifications**

The course coordinator can modify some of the contents of the curriculum without changing the major goals of the course which is approved by the academy and the ministry of high education . This change is done by reference to the department council.

### **B. Staff development requirements**

According to the plane, two staff members and two assistants have been appointed in the department during the academic year 2014/2015. The department has a plan to increase the number of staff within the next 2 years to reach the ratio 1:25 for the staff to students, and the ratio of 1:15 for the staff assistants to students.

#### 4. Progress of previous year's action plan

Action identified	Person Responsible	Progress of action
Choice of external reviewers to review the program specifications for credit hour system.	The department and the Administration of the Academy	Done
Specialized training courses for all staff and teaching assistants	Training Sector of the Academy	Two training courses have been held 1- Use of Technology in teaching (10-11/11/2013) 2-Different methods of examinations and student evaluation(12-14/11/2013) and 6 staff member and 4 assistants attended the courses
Complete the shortage in educational staff. (According to the plane one Staff member and 2 teaching assistants).	Administration of the Academy	One staff member has been added to the department and two teaching assistants
Holding the Fourth scientific conference of the academy	Administration of the academy	Not carried out.
The Third & Fourth scientific conferences of the department	The department	Done at November 2014 and at March 2015
Training of Teaching Assistants on CAMWORKS package	Department	September 2015

#### 5. Action plan (2015/2016)

Action required	Person Responsible	Completion Date
Specialized training courses for all staff and teaching assistants	Training Sector of the Academy	During Midterms of 2015/ 2016 semesters
Complete the shortage in educational staff. (According to the plane one Staff member and 2 teaching assistants).	Administration of the Academy	Academic year 2015-2016
Holding the Fifth scientific conference of the academy	Administration of the academy	After finishing the graduation projects.
The Fifth and Sixth scientific conferences of the department	The department	Two conferences, one in each semester
Preparing the department laboratories to be moved to the new building	Administration & Department	January & February 2016

**Program Coordinator:** Dr. Abdelmagid A. Abdalla

**Signature:**

# **Semester's Course Report**



**2012/2013**

**Freshman, First Semester**

Code	Course
MTH101	Math-1 (Algebra and Calculus)
PHY101	Physics-1
MNF101	Eng. Graphics
CHE100	Chemistry
MEC101	Mechanics-1
GEN141	Contemporary Social Issues
GEN143	History of Engineering and Technology

**Freshman, Second Semester**

Code	Course
MTH102	Math-2 (Integration and Analytic Geometry)
PHY102	Physics-2
MEC102	Mechanics-2
MNF102	Principles of Production Engineering
CMP110	Program Design and Computer Language
GEN142	English Language
MNF100	Introduction to Engineering Materials

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (MTH 101) Algebra and Calculus

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Year/First Semester

4- Credit hours

Credit 3 hrs Lectures: 2 hrs Tutorial 2 hrs Practical

5- Names of lecturers contributing to the delivery of the course: Prf. Dr. Osama El Gayar  
Dr. Sabry Abd El-Aziz

6- Course coordinator: Dr. Sabry Abd El-Aziz

7- External evaluator: Non

#### B- Statistical Information

1- No. of students attending the course:

No. 1016 100 %

2- No. of students completing the course:

No. 997 98.13 %

3- Results:

	No.	%
Passed	776	77.83
Failed	221	22.17

Grading of successful students:		
Grade	No.	%
Excellent	100	10.03
Very Good	211	21.16
Good	274	27.48
Pass	191	19.16

#### C- Professional Information

1 – Course teaching

Topic		Lecture hours	Actual hours	Tutorial hours
1	Functions.	4	3	2
2	Differentiation.	3	4	4
3	Trigonometric and inverse trigonometric functions.	3	4	4
4	Exponential and logarithmic functions.	2	2	2
5	Hyperbolic and inverse hyperbolic functions.	2	2	2
6	Taylor and binomial expansions.	2	2	2
7	Matrices with applications.	6	4	6
8	Vectors in the Euclidean space.	2	1	2
9	Real vector spaces.	2	1	2
10	Polar coordinates.	2	1	2
11	Final Revision	2	2	2
Total hours		30	26	30

Topics taught as a percentage of the content specified: More than 85 %  
Reasons in detail for not teaching any topic: Non  
If any topics were taught which are not specified, give reasons in detail: Non  
Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a7	b1 to b5	c1 to c2	d1 to d3

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, tutorials, problem solving  
Practical training/ laboratory:  
Seminar/Workshop:  
Class activity Solution of problems  
Other assignments/homework: Weekly assignments  
If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

Members of examination committee: Dr. Sameh and Dr. Sabry

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	
Adequate to some extent	Yes
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	it is recommended to solve more examples in the exercises	Only a balanced proportion of exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

## 7- Comments from external evaluator(s): None

## 8- Written Exam Evaluation : None

## 9-Course enhancement:

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
Non	Non	Non

**10- Action plan for academic year 2013 – 2014**

<b>Actions required</b>	<b>Completion date</b>	<b>Person responsible</b>
Adding more exercises, assignments reports and quizzes	September , 2015	Dr. Sabry

**Course coordinator:** Dr. Sabry Abd El-Aziz

**Signature:**

**Date:** February, 2013

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (PHY 101) Physics

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Year/Second Semester

4- Credit hours

Credit 3 hrs Lectures 2 hrs Tutorial 1 hrs Practical 2 hr

5- Names of lecturers contributing to the delivery of the course: Prof. Dr.El-Tawab Kamal

Prof. Dr. Abo el Yazeed B. Abo el Yazeed

Dr. Marwa Y. Shoeib

Dr. Nagat A. Elmahdy

6- Course coordinator: Dr. Nagat A. Elmahdy

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No.	952	100	%
No.	952	100	%

No. of students completing the course:

Results:

	No.	%
Passed	850	89.28
Failed	102	10.71

Grading of successful students:		
Grade	No.	%
Excellent	150	17.64
Very Good	215	25.29
Good	260	30.58
Pass	225	26.47

#### C- Professional Information

##### 1 – Course teaching

Topic	Total hours		Lecturer
	Plan.	Actual	
• Rotational motion and the Gravitational Law.	10	10	Prof. Dr. El-Tawab Kamal
• Elasticity and Energy Stored in a wire.	6	8	
• Fluid Flow and Fundamental Laws of Fluid Mechanics.	6	8	
• Viscosity and Poiseuille's Law	3	4	
• Temperature and Heat Transfer.	7	8	
• Thermodynamics and the Kinetic Theory of Gases.	6	8	
• Simple Harmonic Motion.	4	0	
• Wave Motion and Energy Transmitted by Sinusoidal Waves.	6	0	
• Sound waves and Doppler's Effect.	6	0	
<b>Total hours</b>	54	46	

Topics taught as a percentage of the content specified:

>90 % **70-90 %** <70%

Reasons in detail for not teaching any topic: There was no time

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a7	b1 to b3	c1 to c4	d1 to d3

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, tutorials and problem solving  
 Practical training/ laboratory: Practical Training and experimental measurements in Lab  
 Seminar/Workshop: Non  
 Class activity: Exercises; solution of problems and data show.  
 Other assignments/homework: Bi-weekly assignments and reports  
 If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	60	60
Oral examination	Non	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

Members of examination committee: Prof. Dr.El-Tawab Kamal, Prof. Dr. Abo el Yazeed B. Abo el Yazeed, Dr. Marwa Y. Shoeib and Dr. Nagat A. Elmahdy

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	it is recommended to solve more examples in the exercises	Only a balanced proportion of exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	

## 8- Written Exam Evaluation

- High success percentage in the good level of the final written exam.
- The whole exam result shows considerable weakness in report writing and English language level.

## 9- Course enhancement:

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
(a) Add more experiments to Physics Laboratory	September 2012	Two experiments are already added on September 2012. One more is planned for May 2013

**10- Action plan for academic year 2013 – 2014**

Actions required	Completion date	Person responsible
1. Adding more assignments reports and quizzes for Chapters 1 and 3	September 2013	Prof. Dr. El-Tawab Kamal
2. The need for more advanced laboratory experiences in the major.		

**Course coordinator:** Dr. Nagat A. Elmahdy

**Signature:** *Dr. Nagat A. Elmahdy*

**Date:** February 15, 2013

## Semester's Course Report

### Academic year: 2012 - 2013

### Semester: Fall

#### A- Basic Information

- 1- **Course Code & Title:** (MNF101) Engineering Graphics
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Fresh
- 4- **Credit hours**  
Credit      3 hrs      Lectures      2 hrs      Tutorial      6 hrs      Practical      hrs
- 5- **Names of lecturers contributing to the delivery of the course:**  
Prof. Dr. Nabil Gadallah
- 6- **Course coordinator:** Prof. Dr. Nabil Gadallah
- 7- **External evaluator:** Non

#### B- Statistical Information

- 1- **No. of students attending the course:** No.      400      100      %
- 2- **No. of students completing the course:** No.      400      100      %
- 3- **Results:**

	No.	%
Passed	306	76.5
Failed	94	23.5

Grading of successful students:		
Grade	No.	%
A	21	5.25
B	40	10
C	68	17
D	177	44.25

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Lecturer
Drawing instruments , Draw sheets ; Scales; Folding Lettering	1	6	Prof. Mamdouh Saber
Geometric Construction	1	6	
Alphabet of lines	1	6	
Theory of orthographic projection: Projection of point ; line and plane Projection of geometric solids	1	6	
Multi view drawing (of Vertical and Horizontal Surfaces)	1	6	
Multi view drawing (of inclined Surfaces)	1	6	
Multi view drawing (of cylindrical Surfaces)	1	6	
Pictorial drawing (isometric) , Pictorial drawing (oblique )	1	6	
Isometric drawing (of Vertical, Horizontal & inclined Surfaces)	1	6	
Isometric drawing (of cylindrical Surfaces)	1	6	
Conventional practice in ED	1	6	
Importance of drawing sections ; Basic types of sections: Full sections : longitudinal ,cross – section	1	6	
Off set ;Aligned sections; Half-section ;Partial S.; Revolved	1	6	



& Auxiliary sections.			
Dimensioning – Arrangements of dimensions – Rules for dimensions of circles ; radii ; angles ; plain holes	1	6	
Revision	1	6	
<b>Total hours</b>	<b>15</b>	<b>90</b>	

Topics taught as a percentage of the content specified:

>90 % ☒ 100 70-90 % ☐ <70% ☐

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted

## 2- Teaching and learning methods:

**Lectures:** Using OHP Black board /White board

**Practical training /laboratory:**

**Seminar /Workshop:** Drawing of several problems weekly using traditional methods and free hand sketches.

**Class activity:**

**Case Study:** Selected cases

**Other assignments / homework:** Weekly

If teaching and learning methods were used other than those specified, list and give reasons: None

## 3- Student assessment:

Method of assessment	Points	%
Written examination	60	60
Oral examination	0	0
Practical/laboratory work	0	0
Other assignments/class work	20	20
Mid-Term Exam	20	20
Total	100	100

Members of examination committee

Prof. Dr. Nabil Gadallah

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

☒ Yes

Adequate to some extent

☐ .....

Inadequate

☐ .....

List any inadequacies

☐ Non

## 5- Administrative constraints

List any difficulties encountered: None

## 6- Student evaluation of the course:

List any criticisms

None

## 7- Comments from external evaluator(s): Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2013 – 2014**

<b>Actions required</b>	<b>Completion date</b>	<b>Person responsible</b>
Non		
<b>Course coordinator:</b> Prof. Dr. Nabil Gadallah		
<b>Signature:</b>		
<b>Date:</b> October 2013		

## Semester's Course Report

### Academic year: 2012 - 2013

### Semester: Spring

#### A- Basic Information

- 1- **Course Code & Title:** (MNF101) Engineering Graphics
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Fresh
- 4- **Credit hours**  
Credit    3 hrs       Lectures    2 hrs       Tutorial    6 hrs       Practical    hrs
- 5- **Names of lecturers contributing to the delivery of the course:**  
Prof. Dr. Nabil Gadallah
- 6- **Course coordinator:** Prof. Dr. Nabil Gadallah
- 7- **External evaluator:** Non

#### B- Statistical Information

- 1- **No. of students attending the course:** No.    

394	100	%
-----	-----	---
- 2- **No. of students completing the course:** No.    

394	100	%
-----	-----	---
- 3- **Results:**

	No.	%
Passed	365	92.64
Failed	29	7.36

Grading of successful students:		
Grade	No.	%
A	35	8.88
B	106	26.9
C	111	28.17
D	113	28.86

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Lecturer
Drawing instruments , Draw sheets ; Scales; Folding Lettering	1	6	Prof. Mamdouh Saber
Geometric Construction	1	6	
Alphabet of lines	1	6	
Theory of orthographic projection: Projection of point ; line and plane	1	6	
Projection of geometric solids	1	6	
Multi view drawing (of Vertical and Horizontal Surfaces)	1	6	
Multi view drawing (of inclined Surfaces)	1	6	
Multi view drawing (of cylindrical Surfaces)	1	6	
Pictorial drawing (isometric ) , Pictorial drawing (oblique )	1	6	
Isometric drawing (of Vertical, Horizontal & inclined Surfaces)	1	6	
Isometric drawing (of cylindrical Surfaces)	1	6	
Conventional practice in ED	1	6	
Importance of drawing sections ; Basic types of sections: Full sections : longitudinal ,cross – section	1	6	
Off set ;Aligned sections; Half-section ;Partial S.; Revolved & Auxiliary sections.	1	6	

Dimensioning – Arrangements of dimensions – Rules for dimensions of circles ; radii ; angles ; plain holes	1	6	
Revision	1	6	
<b>Total hours</b>	<b>15</b>	<b>90</b>	

**Topics taught as a percentage of the content specified:**

>90 % ☒ 100 70-90 % ☐ <70% ☐

**Reasons in detail for not teaching any topic** None

**If any topics were taught which are not specified, give reasons in detail**

None, all of the missed teaching hours were substituted

## 2- Teaching and learning methods:

**Lectures:** Using OHP Black board /White board

**Practical training /laboratory:**

**Seminar /Workshop:** Drawing of several problems weekly using traditional methods and free hand sketches.

**Class activity:**

**Case Study:** Selected cases

**Other assignments / homework:** Weekly

**If teaching and learning methods were used other than those specified, list and give reasons:** None

## 3- Student assessment:

Method of assessment	Points	%
Written examination	60	60
Oral examination	0	0
Practical/laboratory work	0	0
Other assignments/class work	20	20
Mid-Term Exam	20	20
Total	100	100

**Members of examination committee**

Prof. Dr. Nabil Gadallah

**Role of external evaluator**

Non

## 4- Facilities and teaching materials:

**Totally adequate**

☒ Yes

**Adequate to some extent**

☐

**Inadequate**

☐

**List any inadequacies**

☐ Non

## 5- Administrative constraints

**List any difficulties encountered:** None

## 6- Student evaluation of the course:

**List any criticisms**

None

## 7- Comments from external evaluator(s):

Non

## 8- Course enhancement:

**Progress on actions identified in the previous year's action plan:** No previous comments

**Action State whether or not completed and give reasons for any non-completion** Non

**9- Action plan for academic year 2013 – 2014**

<b>Actions required</b>		<b>Completion date</b>	<b>Person responsible</b>
Non			
<b>Course coordinator:</b>	Prof. Dr. Nabil Gadallah		
<b>Signature:</b>			
<b>Date:</b>	October 2013		

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (CHE100) Chemistry

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Year/Second Semester

4- Credit hours

Credit 3 hrs. Lectures 2 hrs. Tutorial 1 hrs. Practical 2 hrs.

5- Names of lecturers contributing to the delivery of the course: Prof. Dr. Shaban Ragab Gouda

6- Course coordinator: Prof. Dr. Shaban Rageb Gouda

7- External evaluator: Non

#### B- Statistical Information

4- No. of students attending the course:

No.	1280	100	%
No.	1260	98.43	%

5- No. of students completing the course:

6- Results:

	No.	%
Passed	1150	91.26
Failed	110	8.73

Grading of successful students:		
Grade	No.	%
Excellent	466	36.98
Very Good	240	19.04
Good	280	22.2
Pass	144	13.01

#### C- Professional Information

##### 1 – Course teaching

Topic	Total hours		Lecturer
	Plan.	Actual	
• Gas law and gas liquefaction	6	6	Prof. Dr. Shaban Rageb
• Liquid state, refrigeration and heat pump.	6	6	
• Electrochemistry and metallic corrosion.	5	5	
• Solution and antifreezes	3	3	
• Thermo chemistry and solar heat.	3	3	
• Pollution	0	0	
• water treatment and distillation	14	14	
• polymer and industry	3	3	
• fuels and combustion	3	3	
• Chemistry and tech. of petroleum and new trends in energy resource.	3	3	
<b>Total hours</b>	<b>46</b>	<b>46</b>	

Topics taught as a percentage of the content specified:

>90 %

Reasons in detail for not teaching any topic: non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a12	b1 to b7	c1 to c6	d1 to d5

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, tutorials and problem solving  
 Practical training/ laboratory: Practical Training and experimental measurements in Lab  
 Seminar/Workshop: Non  
 Class activity: Exercises; solution of problems and data show.  
 Other assignments/homework: Bi-weekly assignments and reports  
 If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	60	60
Oral examination	Non	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

Members of examination committee: Prof. Dr. Shaban Ragab Gouda

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies:

Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	it is recommended to solve more examples in the exercises	Only a balanced proportion of exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid-term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	

## 8- Written Exam Evaluation

- High success percentage in the good level of the final written exam.
- The whole exam result shows considerable weakness in report writing and English language level.

## 9- Course enhancement:

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
Add more experiments to chemistry Laboratory	December 2013	One experiment is already added on September 2013. One more is planned for May 2014

**9- Action plan for academic year 2013 – 2014**

Actions required	Completion date	Person responsible
1. adding more assignments reports and quizzes for Chapters 10 and 11	December 2013	Prof. Dr. Shaban Rageb

**Course coordinator:** Prof. Dr Shaban Rageb

**Signature:**

**Date:** September 2013



## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (MEC 101) Mechanics

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Year/First Semester

4- Credit hours

Credit 2 hrs Lectures: 1 hrs Tutorial 3 hrs Practical

5- Names of lecturers contributing to the delivery of the course:

Prof. Dr. Eng. Hassan Awad  
Dr. Moamen Wafaie  
Dr. Shymaa Lotfy

6- Course coordinator: Prof. Dr. Eng. Hassan Awad

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No.	980	100	%
No.	950	96.9	%

No. of students completing the course:

Results:

	No.	%
Passed	759	79.9
Failed	191	20.1

Grading of successful students:		
Grade	No.	%
Excellent	60	6.4
Very Good	159	16.7
Good	326	34.3
Pass	214	22.5

Topic			Tutorial hours
1	Forces in plane	1	2
2	Component of a Force- Rectangular Component – Resultant	1	3
3	Force in space	2	6
4	Force defined by its magnitude and two points on its line of action	1	4
5	Moment of a force about a point	1	2
6	Rectangular Components of the moment of a Force	1	4
7	Moment of a fore about a specified axis- moment of a couple	1	4
8	Equivalent system – Resultants of a force and couple sys	2	4
9	Support reaction in plane	2	6
10	Support reaction in space	1	4
11	Trusses	2	6
Total hours		15	45

Topics taught as a percentage of the content specified: More than 95 %  
Reasons in detail for not teaching any topic: Non  
If any topics were taught which are not specified, give reasons in detail: Non  
Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a5	b1 to b6	None	d1 to d3

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, tutorials, problem solving  
Practical training/ laboratory:  
Seminar/Workshop:  
Class activity Numerical exercises; solution of problems  
Case Study: Selected case studies  
Other assignments/homework: Bi-weekly assignments and reports  
If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

Members of examination committee: Prof. Dr. Eng. Hassan Awad ,  
Dr. Moamen Wafaie and  
Dr. Shymaa Lotfy

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	
Adequate to some extent	Yes
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	It is recommended to solve more examples in the exercises	Only a balanced proportion of numerical exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	

### 8- Written Exam Evaluation

- Low success percentage in question 4 of the final written exam implies the need to revise the teaching and learning activity of the control system stability analysis and design of convenient controller, by adding more exercises, assignments reports and quizzes.
- The whole exam result shows considerable weakness in report writing and English language level.

### 9- Course enhancement:

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
None	None	None

### 9- Action plan for academic year 2013 – 2014

Actions required	Completion date	Person responsible
None	None	None

Course coordinator: Prof. Dr. Eng. Hassan Awad

Signature:

Date: September 24, 2013

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (GEN 141) قضايا اجتماعية معاصرة

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Semester

4- Credit hours

Credit 2 hrs Lectures 2 hrs Tutorial

- Practical -  
Prof. Dr. رشاد احمد عبداللطيف

5- Names of lecturers contributing to the delivery of the course:

6- Course coordinator: Prof. Dr. رشاد احمد عبداللطيف

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No.	1005	100	%
No.	880	87.56	%

No. of students completing the course:

Results:

	No.	%
Passed	725	82.38
Failed	155	17.61

Grading of successful students:		
Grade	No.	%
Excellent	230	26.14
Very Good	250	28.40
Good	190	21.59
Pass	55	6.25

#### C- Professional Information

##### 1 – Course teaching

Topic	Total hours		Lecturer
	Plan.	Actual	
الانتماء اهميته واصول المجتمع –العادات والتقاليد المرعية –المواطنه – العوامل المحفزه لحب الوطن ( الحرية – احترام الرأي الاخر – عدم التمييز العنصري – الديمقراطية)			Prof. Dr. رشاد عبداللطيف
النمو والتكامل الاقتصادي –المكونات الاجتماعية والاقتصادية للمجتمع – اساليب القيادة –اساليب ترشيد الموارد – الابتكار وتجديد الموارد – الحوافز الخاصة بافراد المجتمع – اساليب تقييم المشروعات)			
(بناء الاسرة – تكوين الاسرة – التنشئة الاجتماعية – النسق الاسري والانساق الاخرى – المؤسسات التقليدية والحديثة الخاصة بالاسرة )			
(مهارات العمل الجماعي – اهمية العمل الفريقي – الفارق بين العمل الجماعي والفريقي – كيفية اعداد القادة )			
Total hours			

Topics taught as a percentage of the content specified:

>90 % 70-90 % <70%

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a3	b1 to b3	-	d1 to d3

## 2- Teaching and learning methods:

Lectures:	Lecture, discussions, tutorials, problem solving and modeling
Practical training/ laboratory:	Non
Seminar/Workshop:	Lecture
Class activity	Non
Case Study:	Selected case studies
Other assignments/homework:	Bi-weekly assignments and reports
If teaching and learning methods were used other than those specified, give reasons: Non	

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	30	30
Mid-Term Exam	Non	0
Total	100	100

Members of examination committee: Prof. Dr. رشاد عبداللطيف

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	يري البعض عدم اهمية تدريس العلوم الانسانية لطلاب كلية الهندسة	تخصيص اكثر من محاضرة لتوضيح اهمية دراسة العلوم الانسانية في الحياة العملية بجانب دراسة التخصص
(b)	يري بعض الطلاب اضافة بعض الموضوعات التي تناسب تخصصهم ودراساتهم للهندسة	تخصيص محاضرتين يعرض فيها الطلبة بعض المهارات التي تساعد في الحياة العملية مثل العمل الفرقي او الاقتناع

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	Non

## 8- Written Exam Evaluation

High success percentage in the good level of the final written exam.

The whole exam result shows considerable weakness in report writing and English language level

## 9- Course enhancement:

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

## 9- Action plan for academic year 2013– 2014

Actions required	Completion date	Person responsible
Non	January 2015	Prof. Dr shimaa nabih

Course coordinator: Prof. Rashad A. Abdelatif

Signature:

Date: September 2013

## Semester's Course Report Academic year 2012-2013

### A- Basic Information

1- Course Code & Title: (GEN 143) تاريخ الهندسة والتكنولوجيا

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Semester

4- Credit hours

Credit 2 hrs Lectures 2 hrs Tutorial - Practical -

5- Names of lecturers contributing to the delivery of the course:

Dr. Amal Asran

6- Course coordinator: Dr. Amal Asran

7- External evaluator: Non

### B- Statistical Information

No. of students attending the course:

No.	570	100	%
No.	525	92.11	%

No. of students completing the course:

Results:

	No.	%
Passed	510	97.14
Failed	15	2.68

Grading of successful students:		
Grade	No.	%
Excellent	143	27.23
Very Good	156	29.71
Good	138	26.28
Pass	73	13.90

### C- Professional Information

#### 1 – Course teaching

Topic	Total hours		Lecturer
	Plan.	Actual	
العلم و الهندسة والتكنولوجيا	2		Dr. Amal asran
الهندسة و البحث العلمى – منظومة البحث العلمى	2		
عناصر و متطلبات البحث العلمى	2		
الهندسة وخريطة البحث العلمى – مراحل البحث العلمى	2		
تاريخ الهندسة و التكنولوجيا فى مختلف العصور	4		
نقل التكنولوجيا	2		
نشاطات العمل الهندسى و مسؤوليات المهندس	2		
<b>Total hours</b>			

Topics taught as a percentage of the content specified:

>90 % 70-90 % <70%

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a4	b1 to b4	-	d1 to d4

**2- Teaching and learning methods:**

Lectures: Lecture, discussions, tutorials, problem solving and modeling  
 Practical training/ laboratory: Non  
 Seminar/Workshop: Lecture  
 Class activity: Non  
 Case Study: Selected case studies  
 Other assignments/homework: Bi-weekly assignments and reports  
 If teaching and learning methods were used other than those specified, give reasons: Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	30	30
Mid-Term Exam	Non	0
Total	100	100

Members of examination committee: Dr. Amal Asran

Role of external evaluator: Non

**4- Facilities and teaching materials:**

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies:

Non

**5- Administrative constraints** (List any difficulties encountered)

➤ Non

**6- Student evaluation of the course:**

	List any criticisms	Response of course team
(a)	يري بعض عدم اهمية لدراسة العلوم الانسانية في لطلاب كلية الهندسة	تخصيص اكثر من محاضرة لتوضيح اهمية دراسة العلوم الانسانية في الحياة العملية بجانب دراسة التخصص
(b)	يري بعض الطلاب اضافة بعض الموضوعات التي تناسب تخصصهم ودراساتهم للهندسة	تخصيص محاضرتين يعرض فيها الطلبة بعض المهارات التي تساعد في الحياة العملية مثل العمل الفردي او الاقناع

**7- Comments from external evaluator(s):**

	Comment	Response of course team
(a)	Non	Non

**8- Written Exam Evaluation****9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

**9- Action plan for academic year 2013– 2014**

Actions required	Completion date	Person responsible
Non	January 2015	Prof. Dr. مروه محمد فؤاد

Course coordinator: Dr. Amal Asran

Signature:

Date: September 2013

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (MTH 102) Integration and Analytic Geometry

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Year/Second Semester

4- Credit hours

Credit 3 hrs Lectures: 2 hrs Tutorial 3 hrs Practical

5- Names of lecturers contributing to the delivery of the course:

Dr. Sameh Al Shenawy  
Dr. Sabry Abd El-Aziz

6- Course coordinator: Dr. Sabry Abd El Aziz

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No.	989	100	%
No.	937	94.7	%

No. of students completing the course:

Results:

	No.	%
Passed	647	69.05
Failed	290	30.95

Grading of successful students:		
Grade	No.	%
Excellent	112	11.95
Very Good	116	12.38
Good	147	15.69
Pass	272	29.03

#### C- Professional Information

1 – Course teaching

Topic		Lecture hours	Actual hours	Tutorial hours
1	Anti-derivative, indefinite integral	2	2	2
2	Definite integrals and the fundamental theorem of calculus	2	2	3
3	Methods of integration (integration by parts, substitution)	4	3	6
4	Integration of trigonometric functions	2	2	4
5	Trigonometric Substitutions	2	2	2
6	Integration of rational functions	2	2	4
7	Miscellaneous Substitutions, improper integrals	2	2	4
8	Application of definite integral (area, volume, arc length, surface area )	3	3	4
9	Sequences, series	4	3	6
10	Equations of lines, planes and circles	3	3	4
11	Conic sections (parabola, ellipse, hyperbola)	4	3	6
Total hours		30	27	45



Topics taught as a percentage of the content specified: More than 90 %  
Reasons in detail for not teaching any topic: Non  
If any topics were taught which are not specified, give reasons in detail: Non  
Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a5	b1 to b6	c1	d1 to d3

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, tutorials, problem solving  
Practical training/ laboratory:  
Seminar/Workshop:  
Class activity: Numerical exercises; solution of problems  
Case Study: Selected case studies  
Other assignments/homework: Weekly assignments and reports  
If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

Members of examination committee: Dr. Sameh and Dr. Sabry

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	
Adequate to some extent	Yes
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	it is recommended to solve more examples in the exercises	Only a balanced proportion of numerical exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	

## 8- Written Exam Evaluation

➤

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
Non		

**9- Action plan for academic year 2013 – 2014**

Actions required	Completion date	Person responsible
Adding more exercises, assignments reports and quizzes	December 2015	Prof. Dr. Sabry

**Course coordinator:** Dr Sabry Abd El Aziz

**Signature:**

**Date:** October 2013

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (PHY 102) Physics

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: First Year/Second Semester

4- Credit hours

Credit 3 hrs Lectures 2 hrs Tutorial 1 hrs Practical 2 hr

5- Names of lecturers contributing to the delivery of the course: Dr. El-Tawab Kamal

Dr. Abo el Yazeed B. Abo el Yazeed

Dr. Marwa Y. Shoeib

Dr. Nagat A. Elmahdy

6- Course coordinator: Dr. El-Tawab Kamal

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No. 1026 100 %

No. of students completing the course:

No. 1026 100 %

Results:

	No.	%
Passed	908	88.5
Failed	118	11.5

Grading of successful students:		
Grade	No.	%
Excellent	48	5.17
Very Good	165	18.28
Good	229	25.22
Pass	466	51.33

#### C- Professional Information

1 – Course teaching

Topic	Total hours		Lecturer
	Plan.	Actual	
• Charge and Matter, The Electric Field, Gauss' law	10	12	Dr. El-Tawab Kamal
• Gauss's law applications	4	8	
• Electric Potential	6	6	
• Capacitors and Dielectric	4	6	
• Current and Resistance, Electromotive force and Circuits	8	8	
• Ampere's law, Inductance	6	6	
• Magnetic Properties of matter	4	0	
• Electromagnetic Waves, Physical Optics, Polarization of light	4	0	
• Interference of light, Diffraction of light	6	0	
• Diffraction of light, Some applications	2	0	
<b>Total hours</b>	<b>54</b>	<b>46</b>	

Topics taught as a percentage of the content specified: >90 % 70-90 % <70%

Reasons in detail for not teaching any topic: There was no time

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a7	b1 to b3	c1 to c4	d1 to d3

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, tutorials and problem solving

Practical training/ laboratory: Practical Training and experimental measurements in Lab

Seminar/Workshop: Non

Class activity: Exercises; solution of problems and data show.

Other assignments/homework: Bi-weekly assignments and reports

If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	60	60
Oral examination	Non	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

**Members of examination committee:** Dr.El-Tawab Kamal, Prof. Dr. Abo el Yazeed B. Abo el Yazeed, Dr. Marwa Y. Shoeib and Dr. Nagat A. Elmahdy

**Role of external evaluator:** Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	it is recommended to solve more examples in the exercises	Only a balanced proportion of exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	

## 8- Written Exam Evaluation

- High success percentage in the good level of the final written exam.
- The whole exam result shows considerable weakness in report writing and English language level.

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
(b) Add more experiments to Physics Laboratory	December 2012	Two experiments will add on September 2013. One more is planned for May 2014

**9- Action plan for academic year 2013 – 2014**

Actions required	Completion date	Person responsible
1. adding more quizzes for Chapters 10 and 11	December 2013	Prof. Dr. El-Tawab Kamal

**Course coordinator:** Dr El-Tawab Kamal

**Signature:**

**Date:** September 2013

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

1- Course Code & Title: (MEC 102) Mechanics (2)-Dynamics

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program  
Architecture Engineering and Building Technology BSc Program

3- Year/Level of program: second Semester

4- Credit hours

Credit 2 hrs Lectures 1 hrs Tutorial 3 - Practical -

5- Names of lecturers contributing to the delivery of the course: Prof.Dr.Eng. Hassan Awad  
Dr. Moamen Wafaie Dr. Shymaa Lotfy

6- Course coordinator: Prof.Dr. Hassan Awad

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No. 759 100 %

No. of students completing the course:

No. 759 100 %

Results:

	No.	%
Passed	658	86.7
Failed	101	13.3

Grading of successful students:

Grade	No.	%
Excellent	52	6.9
Very Good	185	24.3
Good	216	28.5
Pass	205	27

#### C- Professional Information

1 - Course teaching

Topic	Lecture hours	Tutorial hours
➤ Rectilinear Motion of particles.	1	4
➤ Determination of the motion of a particle.	1	4
➤ Graphical Solution of Rectilinear Motion.	1	4
➤ Curvilinear Motion of particle, Free Flight Motion.	2	4
➤ Curvilinear Motion of particle:		
➤ Normal and Tangent.	1	4
➤ Plane Curvilinear Motion.	1	4
➤ Polar Coordinates.	1	4
➤ Kinetics of Particles, Force and acceleration.	2	4
➤ Kinetics of Particles Energy and Momentum Methods	2	4
➤ Motion under a conservative central force.	1	4
➤ Principle of Impulse and Momentum for particle.	2	5
<b>Total hours</b>	<b>15</b>	<b>45</b>

Topics taught as a percentage of the content specified: more than 95%

>90 % 100 70-90 %

<70%

Reasons in detail for not teaching any topic Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a5	b1 to b2	c1 to c3	d1 to d2

## 2- Teaching and learning methods:

Lectures: Lecture, discussions, problem solving and modeling

Practical training/ laboratory: Non

Seminar/Workshop: Lecture

Class activity Non.

Case Study: Selected case studies

Other assignments/homework: Bi-weekly assignments and reports

If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	20	20
Mid-Term Exam	10	10
Total	100	100

Members of examination committee: Prof.Dr. Hassan Awad

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies: Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Comments from external evaluator(s): None

## 7- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	It is recommended to solve more examples in the exercises	Only a balanced proportion of numerical exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion: Non

**9- Action plan for academic year 2013 – 2014**

<b>Actions required</b>	<b>Completion date</b>	<b>Person responsible</b>
None	December 2013	Prof. Dr. Hassan Awad

**Course coordinator:** Prof. Dr . Hassan Awad

**Signature:**

**Date:** September 2013



## Semester's Course Report

### Academic year: 2012 - 2013

### Semester: Fall

#### A- Basic Information

- 1- **Course Code & Title:** (MNF102) Principles of Production Engineering
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Fresh
- 4- **Credit hours**  

Credit	3 hrs	Lectures	2 hrs	Tutorial	hrs	Practical	4hr
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- 5- **Names of lecturers contributing to the delivery of the course:**  

Prof. Dr. Ahmed Kohail	Dr. Maher Khalifa
------------------------	-------------------
- 6- **Course coordinator:** Dr. Maher Khalifa
- 7- **External evaluator:** Non

#### B- Statistical Information

- 4- **No. of students attending the course:**
- 5- **No. of students completing the course:**
- 6- **Results:**

No.	453	100	%
No.	453	100	%

	No.	%
Passed	333	73.51
Failed	120	26.49

Grading of successful students:		
Grade	No.	%
A	78	17.22
B	113	24.94
C	86	18.98
D	59	13.02

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
Role of production engineering, production system objective, types of industries, classification of manufacturing processes	2		
Properties of materials and testing principles	2		4
Sand casting, melting of metal & furnaces. Solidification, pattern allowances, sand molding & gating system. Die casting, centrifugal & investment casting.	2		8
Types of welding, oxy- acetylene welding, electric- arc welding, submerged arc welding, MIG, TIG, resistance welding, soldering & brazing	2		8
Hot & cold forming, rolling, extrusion, wire drawing & sheet metal forming	3		10
Metal cutting processes (Turning, milling, shaping grinding and drilling)	4		30
<b>Total hours</b>	<b>15</b>		<b>60</b>

Topics taught as a percentage of the content specified:

>90 % ☒ 100

70-90 % ☐

<70% ☐

Reasons in detail for not teaching any topic None  
 If any topics were taught which are not specified, give reasons in detail  
 None, all of the missed teaching hours were substituted

**2- Teaching and learning methods:**

Lecture: bi-weekly Lecture

Practical training/ laboratory: weekly Practical Training

Seminar/Workshop:

Class activity:

Case Study:

Other assignments/homework: assignments

If teaching and learning methods were used other than those specified, list and give reasons:

Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	60	60
Oral examination	0	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

Members of examination committee Prof. Dr. Ahmed Kohail & Dr. Maher Khalifa

Role of external evaluator Non

**4- Facilities and teaching materials:**

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies

Yes  
 .....  
 .....  
 Non

**5- Administrative constraints**

List any difficulties encountered

**6- Student evaluation of the course: 58%**

Response of course team Non

List any criticisms Non

**7- Comments from external evaluator(s):**

Response of course team Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2013 – 2014**

	Actions required	Completion date	Person responsible
	Non		
Course coordinator:	Prof. Dr. Ahmad Kohail		
Signature:			
Date:	13/10/2013		

## Semester's Course Report

### Academic year: 2012 - 2013

### Semester: Spring

#### A- Basic Information

- 1- **Course Code & Title:** (MNF102) Principles of Production Engineering
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Fresh
- 4- **Credit hours**  

Credit	3 hrs	Lectures	2 hrs	Tutorial	hrs	Practical	4hr
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- 5- **Names of lecturers contributing to the delivery of the course:**  

Prof. Dr. Ahmed Kohail	Dr. Maher Khalifa
------------------------	-------------------
- 6- **Course coordinator:** Dr. Maher Khalifa
- 7- **External evaluator:** Non

#### B- Statistical Information

- 1- **No. of students attending the course:**
- 2- **No. of students completing the course:**
- 3- **Results:**

No.	354	100	%
No.	354	100	%

	No.	%
Passed	336	94.915
Failed	18	5.085

Grading of successful students:		
Grade	No.	%
A	78	22.03
B	113	31.92
C	86	24.3
D	59	16.67

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
Role of production engineering, production system objective, types of industries, classification of manufacturing processes	2		
Properties of materials and testing principles	2		4
Sand casting, melting of metal & furnaces. Solidification, pattern allowances, sand molding & gating system. Die casting, centrifugal & investment casting.	2		8
Types of welding, oxy- acetylene welding, electric- arc welding, submerged arc welding, MIG, TIG, resistance welding, soldering & brazing	2		8
Hot & cold forming, rolling, extrusion, wire drawing & sheet metal forming	3		10
Metal cutting processes (Turning, milling, shaping grinding and drilling)	4		30
<b>Total hours</b>	<b>15</b>		<b>60</b>

Topics taught as a percentage of the content specified:

>90 % ☒ 100

70-90 % ☐

<70% ☐

Reasons in detail for not teaching any topic None  
 If any topics were taught which are not specified, give reasons in detail  
 None, all of the missed teaching hours were substituted

**2- Teaching and learning methods:**

Lecture: bi-weekly Lecture

Practical training/ laboratory: weekly Practical Training

Seminar/Workshop:

Class activity:

Case Study:

Other assignments/homework: assignments

If teaching and learning methods were used other than those specified, list and give reasons:

Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	60	60
Oral examination	0	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

Members of examination committee Prof. Dr. Ahmed Kohail & Dr. Maher Khalifa

Role of external evaluator Non

**4- Facilities and teaching materials:**

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies

Yes  
 .....  
 .....  
 Non

**5- Administrative constraints**

List any difficulties encountered

**6- Student evaluation of the course: 58%**

Response of course team Non

List any criticisms Non

**7- Comments from external evaluator(s):**

Response of course team Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2013 – 2014**

	Actions required	Completion date	Person responsible
	Non		
Course coordinator:	Prof. Dr. Ahmad Kohail		
Signature:			
Date:	13/10/2013		

# Semester's Course Report (Academic Year 2012-2013) Spring Semester

## A- Basic Information

1- Title and code: Program Design and Computer Languages (CMP 110)

2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Prog.  
Electronic Eng. & Comm. Tech. BSc Prog.  
Computer Eng. & Inf. Tech. BSc Prog.  
Architecture Eng. & Building Tech. BSc Prog.

3- Year/Level of program: Freshman

4- Unit hours: 4 Lectures [2hrs] Tutorial [3hrs] Practical [2 hrs] Total [7hrs]

5- Names of lecturers contributing to the delivery of the course

Dr. Ehab ElShimee

Course coordinator: Dr. Ehab ElShimee

## B- Statistical Information

No. of students attending the course	No. [786]	100%
No. of students completing the course	No. [786]	100%

	No.	%
Passed	702	89.313
Failed	84	10.687

	No.	%
A+	20	2.545
A	56	7.125
A-	100	12.723
B+	99	12.595
B	108	13.74
C+	87	11.069
C	74	9.415
D+	48	6.107
D	41	5.216
D-	69	8.779

## C- Professional Information

1- Course Teaching:

Topic	Lecture hours	Lecture
➤ Steps for solving programs by computer programs	2	Dr. Ehab Elsheme
➤ Program documentation and flow charts	2	
➤ Program structure in C++	1	
➤ Data types and declaration in C++	2	
➤ Input/output in C++ and I/O stream class	1	
➤ I/O manipulation	1	
➤ Operators and precedence in C++	2	
➤ Decision (Selection) Constructs in C++	2	
➤ Loops (Iterations) in C++	2	
➤ Arrays, Pointers, References, and dynamic allocation	2	

➤ Functions in C++, calling functions (by value, by reference)	2	
➤ Structures, Unions, Enumeration, and user-defined data types	2	
➤ Abstract data types (ADT)	1	
➤ Concepts and Terminologies of Object-Oriented Programming (OOP)	2	
➤ Classes and objects	2	
➤ Constructors, destructors, friend functions	1	
➤ Polymorphism, encapsulation, inheritance	1	
➤ File I/O, I/O stream, strings, recursion	2	
Total hours	30	

Percentage of the content specified:

>90 % ☒ 70-90 % ☐ <70% ☐ 100%

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail None

## 2- Teaching and learning methods:

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: A monthly discussion of what is given in the previous weeks.

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

None

## 3- Student assessment: Through Quizzes, oral participation in class, midterm exams

Written examination	<input type="text" value="60 %"/>
Practical examination	<input type="text" value="-20%"/>
Other assignments/class work	<input type="text" value="10 %"/>
Mid-Term Exam	<input type="text" value="10 %"/>
Total	<input type="text" value="100 %"/>

Members of examination committee Dr. Ehab Elshimee

Role of external evaluator None

## 4- Facilities and teaching materials:

Dictionaries, Tape recorders....etc

Totally adequate	<input type="text" value="Yes"/>
Adequate to some extent	<input type="text" value="....."/>
Inadequate	<input type="text" value="....."/>
List any inadequacies	<input type="text" value="None"/>

## 5- Administrative constraints

List any difficulties encountered None

## 6- Student evaluation of the course:

List any criticisms None  
Questioner Good

## 7- Comments from external evaluator(s): None

#### **8- Course enhancement:**

**Progress on actions identified in the previous year's action plan:** updating the program software

**Action State whether or not completed and give reasons for any none-completion** upgrading the computers of the labs

#### **9- Action plan for academic year 2013– 2014**

Adding data show in the computer lab

increasing exercises and number of application programs

Since it's a public speaking course that required the student to combine both oral and written knowledge with this course gives practical advice of different modes of communication including formal CV writing body language, leadership, negotiate, some of the course soft skills so after the instructor finish his lecture a little group of student (5-12) will present for what they have well prepared they will also prepare for a technical report individual CV and biography for company, factory or whatever project they for after graduate.

There last three tasks will have dead time determined by two instructor to give the marks

All the rules and policies already left in the library for student to copy it but next year will be put in the lecture notes.

**Course coordinator:** Dr. Ehab Elshimee

**Signature:**

**Date:** August 2013

## Semester's Course Report

### Academic year 2012-2013

#### A- Basic Information

- 1- Course Code & Title: GEN 142 English Language
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Program  
Electronic Eng. and Comm. Tech. BSc Program  
Computer Eng. and Inf. Tech. BSc Program  
Architecture Eng. and Building Tech. BSc Program
- 3- Year/Level of program: 1st Year/Second Semester
- 4- Credit hours  
Credit 2 hrs Lectures 2 hrs Tutorial Practical
- 5- Course coordinator: Dr. Neveen Samir
- 6- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No.	530	100	%
No.	490	92.45	%

No. of students completing the course:

Results:

	No.	%
Passed	445	90.81
Failed	45	9.18

Grading of successful students:

Grade	No.	%
Excellent	30	6.1
Very Good	66	13.46
Good	140	28.57
Pass	254	51.83

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
<b>Computer Hackers</b>	2		
<b>At the Doctor's</b> Reviewing tenses Reading	2		
<b>At the Doctor's</b> (to be continued) Grammar: perfect tenses& prefixes	2		
<b>Global Warming</b> Reading Speaking : English communication skills Suffixes & adj.&adv.	2		
<b>Computer Addiction</b> Reading: 53-55 Seaking: discussing the topic Grammar: adjectives	2		
<b>Earthquake</b> Reading: 59-61 Grammar: Suffixes	2		
<b>Words and their Stories</b>	2		



Reading Grammar: wh-questions and negatives			
<b>Revision</b> <b>7<sup>th</sup> week Exam</b>	2		
<b>Describing People &amp; Things</b> <b>Reading :</b> <b>Grammar: adj. &amp; adv</b>	2		
<b>Describing People &amp; Things (to be continued)</b> <b>Reading :</b> <b>Grammar : relative clauses</b>	2		
<b>Qualities and Flaws</b> Speak: discussing qualities and flaws of each one (pair work) <b>Grammar: Possession Pronouns+ Adjectives</b>	2		
<b>Qualities and Flaws (to be continued)</b> <b>List. &amp; Speak:</b> discussing the topic	2		
<b>People Idioms</b> <b>Grammar:</b> gerund "& to infinitive & adjectives with prepositions	2		
<b>English proverbs</b> <b>Grammar: problem verbs</b>	2		
Revision	2		
<b>Total hours</b>	<b>30</b>		

Topics taught as a percentage of the content specified:

>90 %

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
A9 , A10	C11 , C12	B4	D1 to D8

## 2- Teaching and learning methods:

Lectures:

Lecture, discussions, doing exercises,

Practical training/ laboratory:

Non

Seminar/Workshop:

Non

Class activity

Doing exercises (pair work & group work)

Other assignments/homework:

Bi-weekly assignments and reports

If teaching and learning methods were used other than those specified, give reasons:

Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	-	-
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

**Members of examination committee:**

Dr. Neveen Samir

**Role of external evaluator:**

Non

## 4- Facilities and teaching materials:

Totally adequate	
Adequate to some extent	Yes
Inadequate	

List any inadequacies:

Non

**5- Administrative constraints** (List any difficulties encountered):                      None

**6- Student evaluation of the course:**

	List any criticisms	Response of course team
(a)	It is recommended to announce the points of mid- term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

**7- Comments from external evaluator(s):**

	Comment	Response of course team
(a)	Non	

**8- Written Exam Evaluation**

- The exam level is convenient, considering the percentage of success.

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
NON	NON	NON

**10- Action plan for academic year 2014 – 2015**

Actions required	Completion date	Person responsible
NON	NON	NON

**Course coordinator:** Dr Neveen

**Signature:**

**Date:** September 2013

## Semester's Course Report

### Academic year: 2013 - 2014

### Semester: Fall

#### A- Basic Information

- 1- **Course Code & Title:** (MNF100) Introduction to Engineering Materials
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program :** Freshman
- 4- **Credit hours**  

Credit	1 hrs	Lectures	1 hrs	Tutorial	0 hrs	Practical	0 hr
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- 5- **Names of lecturers contributing to the delivery of the course:**  

Assist. Prof. Dr. Adel El-Gamal  
Dr. Tarek Madboly
- 6- **Course coordinator:** Assist. Prof. Adel Elgammal
- 7- **External evaluator:** Non

#### B- Statistical Information

7- No. of students attending the course:	No.	428	100	%
8- No. of students completing the course:	No.	428	100	%
9- Results:				

  

	No.	%
Passed	372	86.96
Failed	56	13.08

  

Grading of successful students:		
Grade	No.	%
A	112	26.1
B	72	16.8
C	84	19.6
D	104	24.3

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
1- Introduction	1		
• Types of engineering materials			
• Properties of materials, material testing principles			
2- Ferrous alloys and their properties	3		
2-1 Steel; types and uses			
2-2 Cast iron; types and uses			
3- Non-ferrous alloys and their properties	8		
3-1 Copper and its alloys			
3-2 Aluminum and its alloys			
4- Other engineering alloys	3		
5- Selection of Materials			
<b>Total hours</b>	<b>15</b>		

Topics taught as a percentage of the content specified:

>90 % ☒ 100      70-90 % ☐      <70% ☐

Reasons in detail for not teaching any topic    None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

**2- Teaching and learning methods:****Lecture:** Bi-Weekly Lecture**Practical training/ laboratory:****Seminar/Workshop:** Bi-weekly Seminars**Class activity:****Case Study:****Other assignments/homework:** weekly assignments**If teaching and learning methods were used other than those specified, list and give reasons:**

Non

**3- Student assessment:**

Assessment Method	Timing	Grade (Degrees)
Semester Work: seminars, quizzes assignments and reports	Bi-Weekly	20
Mid-Term Exam	8-th Week	10
Written Exam	Sixteenth week	70
Total		100

**Members of examination committee****Assist. Prof.** Adel El-Gamal & Dr. Tarek Madboly**Role of external evaluator**

Non

**4- Facilities and teaching materials:**

Totally adequate

Yes

Adequate to some extent

.....

Inadequate

.....

List any inadequacies

Non

**5- Administrative constraints****List any difficulties encountered:** None**6- Student evaluation of the course:**

90 %

**Response of course team**

Non

**List any criticisms**

Non

**7- Comments from external evaluator(s):****Response of course team** Non**8- Course enhancement:****Progress on actions identified in the previous year's action plan:** No previous comments**Action State whether or not completed and give reasons for any non-completion** Non**9- Action plan for academic year 2013 – 2014****Actions required****Completion date****Person responsible**

Non

**Course coordinator:** Assist. Prof. Adel Elgammal**Signature:****Date:** September 2013

## Semester's Course Report Academic year: 2013 - 2014 Semester: Spring

### A- Basic Information

- 1- **Course Code & Title:** (MNF100) Introduction to Engineering Materials
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** : Freshman
- 4- **Credit hours**  
Credit      1 hrs      Lectures      1 hrs      Tutorial      0 hrs      Practical      0 hr
- 5- **Names of lecturers contributing to the delivery of the course:**  
Assist. Prof. Adel El-Gamal  
Dr. Tarek Madboly
- 6- **Course coordinator:** Assist. Prof. Adel El-Gamal
- 7- **External evaluator:** Non

### B- Statistical Information

- 10- **No. of students attending the course:**
- 11- **No. of students completing the course:**
- 12- **Results:**

No.	374	100	%
No.	374	100	%

	No.	%
Passed	350	93.583
Failed	24	6.417

Grading of successful students:		
Grade	No.	%
A	59	15.775
B	88	23.529
C	106	28.34
D	97	25.936

### C- Professional Information

#### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
1- Introduction	1		
• Types of engineering materials			
• Properties of materials, material testing principles			
2- Ferrous alloys and their properties	3		
2-1 Steel; types and uses			
2-2 Cast iron; types and uses			
3- Non-ferrous alloys and their properties	8		
3-1 Copper and its alloys			
3-2 Aluminum and its alloys			
4- Other engineering alloys			
5- Selection of Materials	3		
<b>Total hours</b>	<b>15</b>		

**Topics taught as a percentage of the content specified:**

>90 % ☒ 100      70-90 % ☐      <70% ☐

**Reasons in detail for not teaching any topic** None

**If any topics were taught which are not specified, give reasons in detail**

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

**2- Teaching and learning methods:**

**Lecture:** Bi-Weekly Lecture

**Practical training/ laboratory:**

**Seminar/Workshop:**

**Class activity:**

**Case Study:**

**Other assignments/homework:**

**If teaching and learning methods were used other than those specified, list and give reasons:**

**3- Student assessment:**

Assessment Method	Timing	Grade (Degrees)
Semester Work: seminars, quizzes assignments and reports	Bi-Weekly	20
Mid-Term Exam	8-th Week	10
Written Exam	Sixteenth week	70
Total		100

**Members of examination committee** Assist. Prof. Adel El-Gamal & Dr. Tarek Madboly

**Role of external evaluator** Non

**4- Facilities and teaching materials:**

**Totally adequate**

**Adequate to some extent**

**Inadequate**

**List any inadequacies**

  
  
  


**5- Administrative constraints**

**List any difficulties encountered:** None

**6- Student evaluation of the course:**

**90 %**

**Response of course team**

**Non**

**List any criticisms**

**Non**

**7- Comments from external evaluator(s):**

**Response of course team** Non

**8- Course enhancement:**

**Progress on actions identified in the previous year's action plan:** No previous comments

**Action State whether or not completed and give reasons for any non-completion** Non

**9- Action plan for academic year 2013 – 2014**

**Actions required**

**Completion date**

**Person responsible**

Non

**Course coordinator:** Assist. Prof. Adel El-Gamal

**Signature:**

**Date:** September 2013

## 2013/2014

### Sophomore, Third Semester

Code	Course
MTH 203	Math-3 (Differential Equations and Transforms)
MNF 211	Mechanics of materials
MNF 212	Fundamentals of materials Science
MNF 213	Mechanics of Machines-1
GEN 241	Presentation Skills
MNF 214	Machine Drawing-1

### Sophomore, Fourth Semester

Code	Course
MTH 207	Math-7 (Numerical Analysis)
MNF 215	Mechanics of Machines-2
MNF 222	Materials Technology and Testing
MNF 221	Metal Cutting Processes
GEN 242	Technical Report Writing
MNF 216	Machine Drawing-2

## Semester's Course Report

### Academic year 2013-2014

#### A- Basic Information

1- Course Code & Title: (MTH 203) Mathematics -3(Differential Equations and Transforms)

2- Program(s) on which this course is given:

Manufacturing Engineering and Production Technology BSc Program  
Electronic Engineering and Communication Technology BSc Program  
Computer Engineering and Information Technology BSc Program

3- Year/Level of program: Sophomore

4- Credit hours

Credit 3 hrs Lectures: 2 hrs Tutorial 3 hrs Practical

5- Names of lecturers contributing to the delivery of the course:

Dr. Ashraf Taha

Dr. Sameh Elshenawy

Dr. Moamen Wafaie

6- Course coordinator: Dr. Ashraf Taha

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No.	411	100	%
No.	411	100	%

No. of students completing the course:

Results:

	No.	%
Passed	372	90.51
Failed	39	9.49

Grading of successful students:		
Grade	No.	%
Excellent	121	29.44
Very Good	70	17.03
Good	100	24.33
Pass	81	19.71

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
➤ Definitions, order, degree.	1	1	—
➤ 1 <sup>st</sup> order differential equations, 2 <sup>nd</sup> order and n <sup>th</sup> order differential equations with constant coefficients.	6	10	—
➤ Non homogeneous D.E., undetermined coefficient method.	6	10	—
➤ Variation of parameters, Euler equations, piratical D.E.	3	4	—
➤ Laplace transform, 1 <sup>st</sup> and 2 <sup>nd</sup> shifting theorem.	4	6	—
➤ Laplace transforms of derivative and integrals, inverse Laplace transforms, convolution, applications.	4	6	—
➤ Fourier series, half rang expansion, Legendre and Bessel functions.	6	8	—
<b>Total hours</b>	<b>30</b>	<b>45</b>	<b>—</b>

Topics taught as a percentage of the content specified:

More than 95 %

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a7	b1 to b4	c1 to c3	d1 to d2



**2- Teaching and learning methods:**

Lectures: Lecture, discussions, tutorials, problem solving

Practical training/ laboratory:

Seminar/Workshop:

Class activity Solution of problems

Case Study: Selected case studies

Other assignments/homework: Weekly assignments and reports

If teaching and learning methods were used other than those specified, give reasons: Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

Members of examination committee: Dr. Ashraf Taha and Dr. Sameh Elshenawy

Role of external evaluator: Non

**4- Facilities and teaching materials:**

Totally adequate	
Adequate to some extent	Yes
Inadequate	

List any inadequacies: Non

**5- Administrative constraints** (List any difficulties encountered) None**6- Student evaluation of the course:**

	List any criticisms	Response of course team
(a)	It is recommended to solve more examples in the exercises	Only a balanced proportion of exercises are solved in the class, the rest are presented as assignments
(b)	The assignment are corrected without giving detailed comments concerning the correct answers	The correct results of problems solutions of problems will be presented during the exercises periods
(c)	It is recommended to announce the points of mid-term, rather than the grades.	The form and timing of declaration of year work evaluation results follow the Academy policy.

**7- Comments from external evaluator(s):**

	Comment	Response of course team
(a)	Non	

**8- Written Exam Evaluation**

- Low success percentage in question 2 of the final written exam implies the need to revise the teaching and learning activity of the methods of solution for the second and higher differential equations, by adding more exercises.

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
None	None	None

**9- Action plan for academic year 2014 – 2015**

Actions required	Completion date	Person responsible
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None	None	None
------	------	------

**Course coordinator:** Dr. Ashraf Taha

**Signature:**

**Date:** October 1, 2014

# Annual Course Report Academic year 2013-2014 "FALL"

## A- Basic Information

1- Title and code: (MNF 211) Mechanics of Material  
 2- Program(s) on which this course is given: Manufacturing Eng. & Production Tech. BSc. Prog.  
 1-Year/Level of program: Sophomore/Semester 3  
 2- Credit hours: 3      Lectures       Tutorial       Total   
 5- Names of lecturers contributing to the delivery of the course  
     Prof. Dr. Ahmed El-Sanabary  
     Course coordinator Prof. Dr. Ahmed El-Sanabary  
     External evaluator

## B- Statistical Information

No. of students attending the course: No.       %   
 No. of students completing the course: No.       %

Results:

	No.	%
Passed	163	63.2
Failed	60	36.8

Grading of successful students:

	No.	%
Excellent(A <sup>+</sup> ,A,A <sup>-</sup> )	12	7.36
V. Good (B <sup>+</sup> ,B,B <sup>-</sup> )	24	14.72
Good (C <sup>+</sup> ,C,C <sup>-</sup> )	34	20.86
Pass (D <sup>+</sup> ,D,D <sup>-</sup> )	33	20.25

## C- Professional Information

### 1 – Course teaching

	Topic	Lecture hours	Practical Hours	Lecturer
1	Simple Trusses	2	2	Prof. Dr. Ahmed ELSanabary
2	Stress and strain	2	2	
3	Tensile test	2	2	
4	Thin wall Pressure Vessel	2	2	
5	Torsion of circular shafts	2	2	
6	Springs Stresses	2	2	
7	Temperature stresses	2	2	
8	Strain energy due to stresses	2	2	
9	Shear & Bending Moment Diagrams	2	2	
10	Shear & Bending Moment Diagrams	2	2	
11	Centroid & Second moment of area	2	2	
12	Shear & Bending stresses	2	2	
13	Compound stress	2	2	
14	Deflection of beams	2	2	
15	Testing of Materials	2	2	
Total hours		30	30	

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic Non

If any topics were taught which are not specified, give reasons in detail Non

## 2- Teaching and learning methods:

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Numerical exercises; solution of problems .

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

Non

## 3- Student assessment:

Method of assessment

Percentage of total

Written examination

Oral examination

----

Practical/laboratory work

----

Other assignments/class work

Mid-Term Exam

Total

100 %

Members of examination committee

Prof. Dr. Ahmed El-Sanabary

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies:

Non

## 5- Administrative constraints

Non

## 6- Student evaluation of the course:

None

## 7- Comments from external evaluator(s):

Non

Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan:

Actions required

Planned Completion date

Accomplishment

Non

Non

Non

Action State whether or not completed and give reasons for any non-completion Non

## 9- Action plan for academic year 2014 – 2015

Actions required

Completion date

Person responsible

Non

Non

Non

Course coordinator: Prof. Dr Ahmed El-Sanabary

Signature:

Date: 3/02/2014

# Annual Course Report Academic year 2013-2014 “Spring”

## A- Basic Information

- 1- Title and code: (MNF 211) Mechanics of Material  
 2- Program(s) on which this course is given: Manufacturing Eng. & Production Tech. BSc. Prog.  
 3- Year/Level of program: Sophomore/Semester 3  
 4- Credit hours: 3      Lectures       Tutorial       Total   
 5- Names of lecturers contributing to the delivery of the course  
     Prof. Dr. Ahmed El-Sanabary  
     Course coordinator Prof. Dr. Ahmed El-Sanabary  
     External evaluator

## B- Statistical Information

No. of students attending the course: No.       %   
 No. of students completing the course: No.       %

Results:

	No.	%
Passed	36	66.67
Failed	18	33.33

Grading of successful students:

	No.	%
Excellent(A <sup>+</sup> ,A,A <sup>-</sup> )	1	1.852
V. Good (B <sup>+</sup> ,B,B <sup>-</sup> )	0	0
Good (C <sup>+</sup> ,C,C <sup>-</sup> )	8	14.815
Pass (D <sup>+</sup> ,D,D <sup>-</sup> )	27	50.001

## C- Professional Information

### 1 – Course teaching

	Topic	Lecture hours	Practical Hours	Lecturer
1	Simple Trusses	2	2	Prof. Dr. Ahmed ELSanabary
2	Stress and strain	2	2	
3	Tensile test	2	2	
4	Thin wall Pressure Vessel	2	2	
5	Torsion of circular shafts	2	2	
6	Springs Stresses	2	2	
7	Temperature stresses	2	2	
8	Strain energy due to stresses	2	2	
9	Shear & Bending Moment Diagrams	2	2	
10	Shear & Bending Moment Diagrams	2	2	
11	Centroid & Second moment of area	2	2	
12	Shear & Bending stresses	2	2	
13	Compound stress	2	2	
14	Deflection of beams	2	2	
15	Testing of Materials	2	2	
Total hours		30	30	

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic Non

If any topics were taught which are not specified, give reasons in detail Non

## 2- Teaching and learning methods:

**Lectures:** Classical lecturing using the white board Computer supported learning

**Practical training/ laboratory:** Practical training and experimental measurements in Lab

**Seminar/Workshop:** Non

**Class activity:** Numerical exercises; solution of problems .

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:**

Non

## 3- Student assessment:

**Method of assessment**

**Percentage of total**

**Written examination**

70 %

**Oral examination**

----

**Practical/laboratory work**

----

**Other assignments/class work**

20 %

**Mid-Term Exam**

10 %

**Total**

100 %

**Members of examination committee**

Prof. Dr. Ahmed El-Sanabary

**Role of external evaluator**

Non

## 4- Facilities and teaching materials:

**Totally adequate**

Yes

**Adequate to some extent**

.....

**Inadequate**

.....

**List any inadequacies:**

Non

## 5- Administrative constraints

➤ Non

## 6- Student evaluation of the course:

None

## 7- Comments from external evaluator(s):

Non

## Response of course team

Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan:

**Actions required**

**Planned Completion date**

**Accomplishment**

Non

Non

Non

Action State whether or not completed and give reasons for any non-completion Non

## 9- Action plan for academic year 2014 – 2015

**Actions required**

**Completion date**

**Person responsible**

Non

Non

Non

**Course coordinator:** Prof. Dr Ahmed El-Sanabary

**Signature:**

**Date:** 1/10/2014

# Annual Course Report Academic year 2013-2014 “fall”

## A- Basic Information

- 1- Title and code: (MNF 212) Fundamentals of Material Sciences  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.  
 3- Year/Level of program: Sophomore/Semester3  
 4- Credit hours: 3 Lectures  Tutorial  Practical 2 Pre-Requisite MNF 100  
 5- Names of lecturers contributing to the delivery of the course  
     Assist. Prof. Adel Elgamal  
     Course coordinator Assist. Prof. Adel Elgamal  
     External evaluator: None

## B- Statistical Information

No. of students attending the course:	No.	<input type="text" value="147"/>	%	<input type="text" value="100"/>
No. of students completing the course:	No.	<input type="text" value="147"/>	%	<input type="text" value="78.91"/>
Results:				
	No.	%	Grading of successful students:	
Passed	116	78.91		
Failed	31	21.1		
			No.	%
			Excellent(A <sup>+</sup> ,A,A <sup>-</sup> )	5 3.40
			V. Good (B <sup>+</sup> ,B,B <sup>-</sup> )	17 11.56
			Good (C <sup>+</sup> ,C,C <sup>-</sup> )	28 19.05
			Pass (D <sup>+</sup> ,D,D <sup>-</sup> )	66 44.9

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Lecturer
➤ Introduction	5	Assist. Prof. Adel Elgamal
➤ Atomic structure	5	
➤ Structure of crystalline materials.	5	
➤ Imperfections in solids	5	
➤ Strengthening mechanisms	10	
➤ Mechanical properties of materials	5	
➤ Electrical properties of materials	10	
➤ Thermal properties of materials	5	
➤ Optical properties of materials	5	
➤ Magnetic properties of materials	5	
<b>Total hours</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic Non

If any topics were taught which are not specified, give reasons in detail Non

### 2- Teaching and learning methods:

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Numerical exercises; solution of problems .

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:  
Non

**3- Student assessment:**

Method of assessment

Percentage of total

Written examination

Oral examination

----

Practical/laboratory work

----

Other assignments/class work

Mid-Term Exam

Total

**100 %**

Members of examination committee

**Assist. Prof. Adel Elgamal**

Role of external evaluator

Non

**4- Facilities and teaching materials:**

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies:

Non

**5- Administrative constraints**

List any difficulties encountered

Non

**6- Student evaluation of the course:**

List any criticisms

None

**7- Comments from external evaluator(s):**

**Response of course team**

Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan:

Actions required

Planned Completion date

Accomplishment

Non

Non

Non

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2014 – 2015**

Actions required

Completion date

Person responsible

Non

Non

Non

Course coordinator: **Assist. Prof. Adel Elgamal**

Signature:

Date: 1/10/2014



# Annual Course Report Academic year 2013-2014 "SPRING"

## A- Basic Information

- 1- Title and code: (MNF 212) Fundamentals of Material Sciences  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.  
 3- Year/Level of program: Sophomore/Semester3  
 4- Credit hours: 3 Lectures  Tutorial  Practical 2 Pre-Requisite MNF 100  
 5- Names of lecturers contributing to the delivery of the course  
     Assist. Prof. Adel Elgamal  
     Course coordinator Assist. Prof. Adel Elgamal  
     External evaluator: None

## B- Statistical Information

No. of students attending the course:	No.	<input type="text" value="37"/>	%	<input type="text" value="100"/>
No. of students completing the course:	No.	<input type="text" value="37"/>	%	<input type="text" value="78.38"/>
Results:				
	No.	%	Grading of successful students:	
Passed	29	78.38		
Failed	8	21.62		
			No.	%
			Excellent(A <sup>+</sup> ,A,A <sup>-</sup> )	2 5.41
			V. Good (B <sup>+</sup> ,B,B <sup>-</sup> )	7 18.92
			Good (C <sup>+</sup> ,C,C <sup>-</sup> )	12 32.43
			Pass (D <sup>+</sup> ,D,D <sup>-</sup> )	8 21.62

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Lecturer
➤ Introduction	5	Assist. Prof. Adel Elgamal
➤ Atomic structure	5	
➤ Structure of crystalline materials.	5	
➤ Imperfections in solids	5	
➤ Strengthening mechanisms	10	
➤ Mechanical properties of materials	5	
➤ Electrical properties of materials	10	
➤ Thermal properties of materials	5	
➤ Optical properties of materials	5	
➤ Magnetic properties of materials	5	
<b>Total hours</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic Non

If any topics were taught which are not specified, give reasons in detail Non

### 2- Teaching and learning methods:

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Numerical exercises; solution of problems .

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:  
Non

**3- Student assessment:**

Method of assessment

Percentage of total

Written examination

Oral examination

----

Practical/laboratory work

----

Other assignments/class work

Mid-Term Exam

Total

**100 %**

Members of examination committee

**Assist. Prof. Adel Elgamal**

Role of external evaluator

Non

**4- Facilities and teaching materials:**

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies:

Non

**5- Administrative constraints**

List any difficulties encountered

Non

**6- Student evaluation of the course:**

List any criticisms

None

**7- Comments from external evaluator(s):**

**Response of course team**

Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan:

Actions required

Planned Completion date

Accomplishment

Non

Non

Non

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2013 – 2014**

Actions required

Completion date

Person responsible

Non

Non

Non

Course coordinator: **Assist. Prof. Adel Elgamal**

Signature:

Date: 1/10/2014

# Semester's Course Report 2013/2014 Summer Semester

## A- Basic Information

- 1- Title and code: (M213) Mechanics of Machines (I) (fall)  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.  
 3- Year/Level of program: second Level.  
 4- Credit hours: 3      Lectures  Tutorial  Practical   
 5- Names of lecturers contributing to the delivery of the course  
     Prof. Dr. Ahmed Mohie El-Din Sarhan  
     Course coordinator Prof. Dr. Ahmed Mohie El-Din Sarhan  
     External evaluator

## B- Statistical Information

No. of students attending the course:	No.	<input type="text" value="13"/>	%	<input type="text" value="100"/>
No. of students completing the course:	No.	<input type="text" value="13"/>	%	<input type="text" value="100"/>
Results:	No.	%	Grading of successful students:	
Passed	12	92.31		
Failed	1	7.69		
			Excellent	No. %
				4 30.77
			Very Good	3 23.1
			Good	2 15.38
			Pass	3 23.1

## C- Professional Information

### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
• Moment of inertia	4	drDr.ProDf. Dr. Ahmdded Sarhan
• System of particles	12	
• Kinematics of rigid bodies,	8	
• Plane Motion of rigid bodies: Force and acceleration	12	
• Plane Motion of rigid bodies: Energy and Momentum	12	
• Cams	8	
<b>Total hours</b>	<b>56</b>	

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic      Non

If any topics were taught which are not specified, give reasons in detail      Non

### 2- Teaching and learning methods:

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Practical Applications; Problem solving.

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:  
Non

**3- Student assessment:**

Method of assessment	Percentage of total
Written examination	<input type="text" value="70 %"/>
Oral examination	<input type="text" value="----"/>
Practical/laboratory work	<input type="text" value=""/>
Other assignments/class work	<input type="text" value="20 %"/>
Mid-Term Exam	<input type="text" value="10 %"/>
Total	<input type="text" value="100 %"/>
Members of examination committee	Prof. Dr. Ahmed Sarhan Assist. Prof. Gafar Husain
Role of external evaluator	Non

**4- Facilities and teaching materials:**

Totally adequate	<input type="text" value="Yes"/>
Adequate to some extent	<input type="text" value="....."/>
Inadequate	<input type="text" value="....."/>
List any inadequacies	Non

**5- Administrative constraints**

List any difficulties encountered None

**6- Student evaluation of the course:**

List any criticisms

1. Lack of materials

Response of course team

More material is added to cover more areas

**7- Comments from external evaluator(s):**

None

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: Some problem is added  
Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2014 – 2015**

Actions required	Completion date	Person responsible
1. Provide more Problems		Dr. Sarhan

Course coordinator: Prof. Dr Ahmed Mohie Eldin Sarhan

Signature:

Date: 10/10/2014

# Semester's Course Report

## 2013/2014

### Fall Semester

#### A- Basic Information

- 1- Title and code: (M213) Mechanics of Machines (I)
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog
- 3- Year/Level of program: second Level.
- 4- Unit hours: 3      Lectures  Tutorial  Practical
- 5- Names of lecturers contributing to the delivery of the course
- Prof. Dr. Ahmed Mohie El-Din Sarhan
- Course coordinator Prof. Dr. Ahmed Mohie El-Din Sarhan
- External evaluator

#### B- Statistical Information

No. of students attending the course:	No.	<input type="text" value="152"/>	%	<input type="text" value="100"/>
No. of students completing the course:	No.	<input type="text" value="152"/>	%	<input type="text" value="100"/>
Results:	No.	%	Grading of successful students:	
Passed	148	97.37	No.	%
Failed	4	2.63	Excellent	78 57.32
			Very Good	40 26.32
			Good	17 11.18
			Pass	13 8.55

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
• Moment of inertia	4	Prof. Dr. Ahmdded Sarhan
• System of particles	12	
• Kinematics of rigid bodies,	8	
• Plane Motion of rigid bodies: Force and acceleration	12	
• Plane Motion of rigid bodies: Energy and Momentum	12	
• Cams	8	
<b>Total hours</b>	<b>56</b>	

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic      Non

If any topics were taught which are not specified, give reasons in detail      Non

##### 2- Teaching and learning methods:

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Practical Applications; Problem solving.

Case Study:

Other assignments/homework: Bi-weekly assignments

If teaching and learning methods were used other than those specified, list and give reasons:

Non

**3- Student assessment:**

Method of assessment	Percentage of total
Written examination	<u>70 %</u>
Oral examination	----
Practical/laboratory work	<u>  </u>
Other assignments/class work	<u>20 %</u>
Mid-Term Exam	<u>10 %</u>
Total	100 %
Members of examination committee	Dr. Ahmed Sarhan Dr. Gafar Husain
Role of external evaluator	Non

**4- Facilities and teaching materials:**

Totally adequate	<u>Yes</u>
Adequate to some extent	<u>  </u>
Inadequate	<u>  </u>
List any inadequacies	Non

**5- Administrative constraints**

List any difficulties encountered                      None

**6- Student evaluation of the course:**

List any criticisms

1. Lack of materials

Response of course team

More material is added to cover more areas

**7- Comments from external evaluator(s):**

None

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: Some problem is added

Action State whether or not completed and give reasons for any non-completion    Non

**9- Action plan for academic year 2014 – 2015**

Actions required	Completion date	Person responsible
1. Provide more Problems		Dr. Sarhan

Course coordinator: Prof. Dr Ahmed Mohie Eldin Sarhan

Signature:

Date: 10/10/2014

## Annual Course Report (Academic Year 2013-2014)

### A- Basic Information

- 1- **Title and code:** Presentation Skills - (GEN 241)
- 2- **Program(s) on which this course is given:** Electronic Eng. & Comm. Tech BSc. Prog.  
Manufacturing Eng. & Prod. Tech. BSc. Prog.
- 3- **Year/Level of program:** Second Level
- 4- **Unit hours 2** Lectures  Tutorial  Practical  Total
- 5- **Names of lecturers contributing to the delivery of the course**  
Dr. Lubna Fekry  
**Course coordinator:** Dr. Lubna Fekry  
**External evaluator:** None

### B- Statistical Information

	FALL		SPRING	
No. of students attending the course	No. <input type="text" value="163"/>	100%	No. <input type="text" value="112"/>	100%
No. of students completing the course	No. <input type="text" value="154"/>	94.5%	No. <input type="text" value="112"/>	100%

Results				
	FALL		Spring	
	No.	%	No.	%
Passed	143	92.85	11	91.7
Failed	11	7.14	1	8.3

Grading of students				
	FALL		Spring	
	No.	%	No.	%
A	12	7.79	1	8.3
B	24	15.58	2	1.67
C	54	35.1	4	0.33
D	53	34.4	4	0.33
F	11	7.14	1	8.3

### C- Professional Information

#### 1 – Course teaching:

Topics	Lecture hours
1- Preparation of short talks.	2
2- How to write a technical report.	2
3- C.V Writing: Preparation of an attractive C.V. containing personal data qualifications, posts, and publications. - Interview Preparations	2
4- Fundamentals of preparing an attractive style for a short talk, techniques for using slides and projector for better interpretation. Using the power point technique for achieving and ideal short talk through a lab top and a data show / Seminar training.	6
5- To improve the student communications skills / Seminar training / JoeHarries Windows	6
6- To develop the student acquiring power of leadership	2

7-. Training on active listening and negotiation.	4
8- To understand and practice what's body language.	2
9-.Free Suggested topic by the students.	2
<b>Total hours</b>	<b>28</b>

Topics taught as a percentage of the content specified:

☐ >90 % ☐ 70-90 % ☐ <70% ☒ 100%

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail: None

## 2- Teaching and learning methods:

**Lectures:** Presenting for both Lecturer and students using data show + white board

**Practical training/ laboratory:** ☐

**Seminar/Workshop:** ☒

**Class activity:** Bi-weekly presentation by students

**Case Study:** ☒ In the portfolio

**Other assignments/homework:** ☒ Technical report / CV writing / Work Biography

If teaching and learning methods were used other than those specified, list and give reasons:

None

## 3- Student assessment: ☒ Presentation / Technical report / CV writing / Work Biography

Written examination ☒ 70 %

Mid term (Technical report) ☒ 12 %

Presentation /class work ☒ 10 %

Personnel CV ☒ 5 %

Factory / Company Biography ☒ 3 %

**Total** **100 %**

**Members of examination committee** Dr. Lubna Fekry

**Role of external evaluator** None

## 4- Facilities and teaching materials:

**Presentations, Videos, Pics ....etc**

**Totally adequate** ☒ Yes

**Adequate to some extent** ☐ .....

## 5- Administrative constraints

**List any difficulties encountered**

- Limited time for all students to present well
- Not adequate class work degrees compared with final exam degree.
- No assistant.

## 6- Student evaluation of the course: 72%

## 7- Comments from external evaluator(s): None

## 8- Course enhancement:

**Progress on actions identified in the previous year's action plan 2013-2014:**

Extra interesting discussion for students, better arranging through groups

**Action State whether or not completed and give reasons for any none-completion** Done

## 9- Action plan for academic year 2014 – 2015

We will try to do extra concerning discussion for students, better arranging through groups



**Everything will run well if the 3-reasons I mentioned before been solved:**

- Limited time for all students to present more
- No assistant.
- Or another prof. sharing me in teaching some groups

**Course coordinator:** Dr. Lubna Fekry

**Signature:**

**Date:** 2014

‘

# Semester's Course Report

## Academic year: 2013-2014

### Semester: Spring

#### A- Basic Information

- 1- **Title and code:** (MNF 214) Machine Drawing I
- 2- **Program(s) on which this course is given:** Manufacturing Eng. and Prod. Tech. BSc Program
- 3- **Year/Level of program:** Second Year/Sophomore
- 4- **Credit hours** Credit 3hrs      Lectures 2hrs      Tutorial 4hrs      Practical -
- 5- **Names of lecturers contributing to the delivery of the course**  
 Prof. Dr. Nabil Gadallah  
 Course coordinator Prof. Dr. Nabil Gadallah  
 External evaluator

#### B- Statistical Information

No. of students attending the course: No.  %

No. of students completing the course: No.  %

Results:

	No.	%
Passed	19	76
Failed	6	24

Grading of successful students:		
Grade	No.	%
A	1	4
B	0	0
C	9	36
D	6	24

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
DATA NECESSARY FOR PRODUCTION:		Prof. Dr Nabil. Gadallah
1. Shape Description	4	
2. Size Description	4	
3. Tolerances & Fits and Geometrical Accuracy	4	
4. Surface Finish	4	
5. Material Description	4	
GRAPHICAL REPRESENTATION OF RINCIPAL MACHINE ELEMENTS AND JOINTS		
1. Introduction	4	
2. Standardization of Machine Parts	4	
3. Joints of Machine Parts	4	
4. Dismountable Joints		
4.1 Threaded Joints	4	
4.2 Keyed Joints	4	
4.3 Splines & Serrations	4	
4.4 Pin Joints	4	
5. Non Dismountable Joints		
5.1 Welded Joints	4	
5.2 Riveted Joints	4	
Revision	4	
<b>Total</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 %

70-90 %

<70%

Reasons in detail for not teaching any topic None

**If any topics were taught which are not specified, give reasons in detail**

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

**2- Teaching and learning methods:****Lectures:**

Course notes

- Machine Drawing (2) by: Prof. Nabil Gadallah, Modern Academy for Engineering & Technology, 2013.
- Standardized parts by: Prof. Mamdouh saber, Modern Academy for Engineering & Technology, 2005.

Required books Engineering Drawing and Graphic Technology, Thomas French McGrawHill, 1992.

Machine Drawing, P.S.Gill, S.K.Kataria & Sons, 2013

**Practical training/ laboratory:**

**Seminar/Workshop:**

**Class activity:**

**Case Study:**

**Other assignments/homework:**

**If teaching and learning methods were used other than those specified, list and give reasons:**

**3- Student assessment:**

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	20	20
Mid-Term Exam	10	10
Total	100	100

**Members of examination committee**

Dr. Nabil Gadallah

**Role of external evaluator**

Non

**4- Facilities and teaching materials:**

**Totally adequate**

**Adequate to some extent**

**Inadequate**

**List any inadequacies**

**5- Administrative constraints**

List any difficulties encountered

**6- Student evaluation of the course:**

78%

List any criticisms

Non

**7- Comments from external evaluator(s):**

Response of course team Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2014 – 2015**

**Actions required**

**Completion date**

**Person responsible**

Non

**Course coordinator:** Prof. Dr. Nabil Gadallah

**Signature:**

**Date:** 2/8/2014

# Semester's Course Report

## Academic year: 2014-2015

### Semester: Fall

#### A- Basic Information

- 1- Title and code: (MNF 214) Machine Drawing I
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Program
- 3- Year/Level of program: Second Year/Sophomore
- 4- Credit hours: 3      Lectures 2hrs    Tutorial 4hrs    Practical -
- 5- Names of lecturers contributing to the delivery of the course  
    Prof. Dr. Nabil Gadallah  
    Course coordinator Prof. Dr. Nabil Gadallah  
    External evaluator

#### B- Statistical Information

No. of students attending the course:      No. 161      % 100

No. of students completing the course:      No. 161      % 100

Results:

	No.	%
Passed	139	86.3
Failed	22	13.7

Grading of successful students:		
Grade	No.	%
A	17	10.2
B	32	19.9
C	41	24.7
D	32	19.9

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
Welded Joints	4	Prof. Dr. Nabil Gadallah
Riveted Joints	4	
Journal Bearings	4	
Journal Bearings	4	
Rolling Bearings	4	
Gears- Gear Geometry .	4	
Spur – Helical Gears	4	
Bevel Gears	4	
Worm Gears	4	
Mechanical transmission	4	
Oil seals	4	
Springs	6	
Valves	6	
Revision	4	
<b>Total</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 % 100      70-90 %         <70% ....

Reasons in detail for not teaching any topic      None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

## 2- Teaching and learning methods:

### Lectures:

Course notes

- Machine Drawing (2) by: Prof. Nabil Gadallah, Modern Academy for Engineering & Technology, 2013.
- Standardized parts by: Prof. Mamdouh saber, Modern Academy for Engineering & Technology, 2005.

6-2 Required books Engineering Drawing and Graphic Technology, Thomas French McGraw Hill, 1992.

Machine Drawing, P.S.Gill, S.K.Kataria & Sons, 2013

### Practical training/ laboratory:

Seminar/Workshop:

Class activity:

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	20	20
Mid-Term Exam	10	10
Total	100	100

Members of examination committee

Dr. Nabil Gadallah

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies

## 5- Administrative constraints

List any difficulties encountered None

## 6- Student evaluation of the course: 78%

List any criticisms Non

## 7- Comments from external evaluator(s): None

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2014 – 2015**

**Actions required**

Non

**Completion date**

**Person responsible**

**Course coordinator:** Prof. Dr Nabil Gadallah

**Signature:**

**Date:** 28/9/2014

## Semester's Course Report

### Academic year 2013-2014

#### A- Basic Information

- 1- Course Code & Title: (MTH 207) Numerical Analysis
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Program
- 3- Year/Level of program: Sophomore, Fourth Semester
- 4- Credit hours  
Credit 3 hrs. Lectures: 2 hrs. Tutorial 2 hrs. Practical
- 5- Names of lecturers contributing to the delivery of the course: Dr. S. Shenawy
- 6- Course coordinator: Dr. Sameh Shenawy
- 7- External evaluator: Non

#### B- Statistical Information

- 1- No. of students attending the course: No. 111 100 %
- 2- No. of students completing the course: No. 111 100 %
- 3- Results:

	No.	%
Passed	93	84
Failed	18	16

Grading of successful students:		
Grade	No.	%
Excellent	18	16.21
Very Good	24	21.62
Good	30	27.03
Pass	21	18.92

#### C- Professional Information

##### 1 – Course teaching

	Topic	Lecture	Actual	Tutorial hours
1	Curve fitting and linear Approximation of a function.	3	3	3
2	Polynomial interpolation and error estimation in the interpolation formula	2	2	2
3	Lagrange interpolation	2	2	2
4	Newton –interpolation	2	2	2
5	Hermit interpolation.	2	2	2
6	Newton-Cotes formula, composite Newton-cotes formula	2	2	2
7	Romberg – Steifel integration method.	2	2	2
8	Numerical solution of initial value problems	3	2	2
9	Numerical solution of first order methods Runge- Kutta methods	4	2	2
10	Multistep methods.	2	2	2
11	Numerical solution of linear and non-linear equation, Gauss-Seidel method.	4	4	4
12	Numerical solution of nonlinear equations the fixed point iteration method,	2	2	2
13	Newton-Raphson method.	2	2	2
	<b>Total hours</b>	<b>30</b>	<b>27</b>	<b>27</b>

Topics taught as a percentage of the content specified:

More than 95 %

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's: A1,A5,B1,B2,B3,B11,D3,D4,D7

**2- Teaching and learning methods:****Lectures:** Lecture, discussions, tutorials, problem solving**Class activity** Numerical exercises; solution of problems**Case Study:** Selected case studies**Other assignments/homework:** Bi-weekly assignments and reports**If teaching and learning methods were used other than those specified, give reasons:** Non**3- Student assessment:**

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

**Members of examination committee:** Dr. S. Shenawy**Role of external evaluator:** Non**4- Facilities and teaching materials:**

Totally adequate	
Adequate to some extent	Yes
Inadequate	

List any inadequacies:

This needs a computer Lab

**5- Administrative constraints** (List any difficulties encountered)

criticism	Response of course team
They want to study some applications in manufacturing technology.	They are completely right. Next semester we will add such examples.

**7- Comments from external evaluator(s):**

Comment	Response of course team
None	None

**8- Written Exam Evaluation**

The results of the course are normally distributed with mean at 70% and with standard deviation 20. This means that the main objectives of the course are achieved for most of the students.

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
This is the first semester	Non	Non

**9- Action plan for academic year 2014 – 2015**

Actions required	Completion date	Person responsible
Adding more examples related to manufacturing technology	December 2014	Dr. S. Shenawy

**Course coordinator:** Prof. Dr. S. Shenawy**Signature:****Date:** July 15, 2014



## Semester Course Report

Academic year: 2013 - 2014

Semester: spring

### A- Basic Information

- 1- **Course Code & Title:** (MNF 215) Mechanics of Machines-2
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Sophomore
- 4- **Credit hours**  
Credit 3 hrs      Lectures 2 hrs      Tutorial 3 hrs      Practical -
- 5- **Names of lecturers contributing to the delivery of the course:** Prof. Gaafar Hussein
- 6- **Course coordinator:** Prof. Gaafar Hussein
- 7- **External evaluator:** Non

### B- Statistical Information

- 13- **No. of students attending the course:**
- 14- **No. of students completing the course:**
- 15- **Results:**

	No.	%
Passed	135	97.83
Failed	3	2.17

No.	138	100	%
No.	138	100	%

Grading of successful students:		
Grade	No.	%
A	24	17.39
B	52	37.68
C	34	24.64
D	25	18.12

### C- Professional Information

#### 1 – Course teaching

Topic	Total hours		Lecturer
	Lec.	Tut.	
• Kinematics of motion: Different types of motion of particles, the basic equations governing motion.	2	4	Prof. Dr. M Galal Rabie Dr Metwally Hussein
• Dynamic force analysis in machines: Velocity and acceleration in mechanisms, inertia forces and moments. Static and dynamic balancing of rotating and reciprocating machines	4	8	
• Gear trains: - Types of gears (spur, helical, worm, and bevel gears) and their basics - Types of gear trains: ordinary (simple, compound) and epicyclic gear trains - Transmission ratios of different gear trains	6	10	
• Gyroscopes: Processional angular motion, gyroscopic couple, effect of gyroscopic couple in different applications (motor vehicles, marines, aircrafts, production machines,.....)	6	8	
• Inertia forces in reciprocating parts: - Velocity and acceleration of reciprocating parts in engines, approximate analytical method for velocity and acceleration of the piston and connecting rod - Inertia forces and moments on the engine moving parts	4	8	
• Turning moment diagrams and flywheel: - Turning moment diagrams for single-cylinder and multi-cylinder engines - Fluctuations of energy and speed, flywheel design calculations.	4	4	

• Speed governors: The basic types of governors and their principle of actions, the basic equations for controlling the rotating speeds.	4	3	
<b>Total hours</b>	30	45	

Topics taught as a percentage of the content specified:

>90 % 70-90 % <70%

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1 to a7	b1 to b4	c1 to c4	d1 to d3

## 2- Teaching and learning methods:

Lecture, presentations, discussions, tutorials, problem solving, self-learning

If teaching and learning methods were used other than those specified, give reasons: Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	20	20
Mid-Term Exam	10	10
Total	100	100

Members of examination committee: Dr. Gaafar A. Hussein

Role of external evaluator: Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies:

Non

## 5- Administrative constraints (List any difficulties encountered)

➤ Non

## 6- Student evaluation of the course:

	List any criticisms	Response of course team
(a)	None	???

## 7- Comments from external evaluator(s):

	Comment	Response of course team
(a)	Non	

## 8- Written Exam Evaluation

- The exam level is convenient, considering the percentage of high grades.
- The whole exam result shows considerable weakness in engineering units.

## 9- Course enhancement:

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
(c)		

## 10- Action plan for academic year 2014 – 2015

Actions required	Completion date	Person responsible
(a)		

**Course coordinator:** Prof. Dr Gaafar A. Hussein

**Signature:**

**Date:** December 24, 2014

# Annual Course Report 2013/2014

## A- Basic Information

- 1- Title and code: MNF221: Metals Cutting Processes  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Prog.  
 3- Year/Level of program: 2<sup>nd</sup> Level / 3<sup>rd</sup> Semester  
 4- Credit hours: 3 Lectures  Tutorial  Practical   
 5- Names of lecturers contributing to the delivery of the course: Dr. M. Merdan  
     Course coordinator: Dr. M. Merdan  
     External evaluator: None

## B- Statistical Information

No. of students attending the course: 129

No. of students completing the course: 127

Results:

	No.	%
Passed	117	92.18
Failed	10	7.82

Grading of successful students:

	No.	%
Excellent	15	11.81
Very Good	26	20.47
Good	35	27.58
Pass	41	32.23

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
Introduction; Definition of technology, production system, manufacturing processes and elements of machining system	4		4
Machining Deviations; reasons, types, dimensional deviation and ISO system of tolerances, definitions and denotations of geometric deviations, standardization and measurement of surface roughness.	6	2	4
Classification of metal cutting processes.	1	1	
Measurement and inspections	6	2	4
Turning process.	6	2	4
Drilling and boring processes.	5	1	4
Planning, shaping, and slotting processes.	4	2	2
Milling process.	6	2	4
Surface and cylindrical grinding processes.	7	3	4
<b>Note:</b> At each metal cutting operations the following topics are going to be discussed; basic concepts, cutting tools and work pieces clamping methods, machine tool types and main parts, attainable accuracies and surface roughness, and sequences of operations required for specific applications for each metal cutting process.			
<b>Total</b>	<b>45</b>	<b>15</b>	<b>30</b>

- Topics taught as a percentage of the content specified:  
     >90 %       70-90 %       <70%
- Reasons in detail for not teaching any topic
- If any topics were taught which are not specified, give reasons in data

**2- Teaching and learning methods:**

- Lectures: Classical lecturing using the white board
- Practical training/ laboratory: Yes
- Seminar/Workshop: Yes
- Class activity: Solution of problems
- Case Study: None
- Other assignments/homework: Assignment report each 4 weeks

If teaching and learning methods were used other than those specified, list and give reasons:

None

**3- Student assessment:**

**Method of assessment**

**Percentage of total**

- Written examination 60 %
- Oral examination
- Practical/laboratory work 20 %
- Other assignments/class work 10 %
- Mid-Term Exam 10 %
- Total 100 %**

**Members of examination committee**

Dr. M. Merdan

**Role of external evaluator**

none

**4- Facilities and teaching materials:**

- Totally adequate Yes
- Adequate to some extent
- Inadequate
- List any inadequacies

**5- Administrative constraints**

None

None

**7- Student evaluation of the course:**

None

**8- Comments from external evaluator(s):**

None

**Response of course team**

None

**9- Course enhancement:**

- Progress on actions identified in the previous year's action plan: None
- Action State whether or not completed and give reasons for any non completion: None

**10- Action plan for academic year 2014 – 2015**

**Actions required**

**Completion date**

**Person responsible**

None

**Course coordinator:** Dr. M. Merdan

**Signature:** M. Merdan

**Date:** 17/12/2014

## Semester's Course Report

### Academic year: 2013 - 2014

### Semester: Spring

#### A- Basic Information

- 1- **Course Code & Title:** (MNF222) Materials Technology and Testing
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** : Sophomore
- 4- **Credit hours**  

Credit	3 hrs	Lectures	2 hrs	Tutorial	1 hrs	Practical	2 hr
--------	-------	----------	-------	----------	-------	-----------	------
- 5- **Names of lecturers contributing to the delivery of the course:**  

Prof. Dr. Adel Algamal
- 6- **Course coordinator:** Dr. Adel El-Gamal
- 7- **External evaluator:** Non

#### B- Statistical Information

**No. of students attending the course:**  
**No. of students completing the course:**  
**Results:**

<b>No.</b>	<b>117</b>	<b>100</b>	<b>%</b>
<b>No.</b>	<b>117</b>	<b>100</b>	<b>%</b>

	No.	%
Passed	113	96.58
Failed	4	3.42

Grading of successful students:		
Grade	No.	%
A	6	5.128
A-	10	8.547
B+	16	13.675
B	19	16.239
C+	19	16.239
C	14	11.9658
D+	14	11.965
D	10	8.547
D-	5	4.27

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Practical hours	Tutorial hours
➤ Alloys and Alloying systems	3	3	1
• Phase Equilibrium and Phase Diagrams	4	3	2
➤ Fe/Fe <sub>3</sub> C iron carbon diagram	5	4	3
phase Transformation	3	3	1
Time Temperature Transformation (TTT) diagrams	5	5	3
➤ Continuous Cooling Transformation (CCT) diagrams	3	3	2
The heat Treatment of Metals	3	3	1
Mechanical properties of materials	2	4	1
Fracture, Fatigue and Creep	2	2	1
<b>Total hours</b>	<b>30</b>	<b>30</b>	<b>15</b>

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic: The term actually was 12 weeks as during the last three weeks practical exams and revisions were carried out.

If any topics were taught which are not specified, give reasons in detail: None

## 2- Teaching and learning methods:

Lecture: Weekly Lecture

Practical training/ laboratory: Weekly Laboratory

Seminar/Workshop:

Class activity:

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

## 3- Student assessment:

Assessment Method	Timing	Grade (Degrees)
Semester Work: seminars, quizzes assignments and reports	Bi-Weekly	10
Mid-Term Exam	6-th Week	10
Practical Exam	Fifteenth week	20
Written Exam	Sixteenth week	60
Total		100

Members of examination committee

Dr. Adel El-Gamal

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies

## 5- Administrative constraints

List any difficulties encountered:

- Limitations of the number of operating experiments in the lab.

## 6- Student evaluation of the course:

90 %

List any criticisms

Response of course team

The exercise hours are not sufficient

The number of solved problems during lecture will be increased

## 7- Comments from external evaluator(s):

None

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: None

Action State whether or not completed and give reasons for any non-completion: None

## 9- Action plan for academic year 2014 – 2015

Actions required

Completion date

Person responsible

Increasing the number of practical tests

September 2014

Assist. Prof. Adel Elgammal

Course coordinator: Assist. Prof. Adel ElGammal

Signature:

Date: 8/12/2014

# Semester's Course Report 2014/2015 Fall Semester

## A- Basic Information

- 1- Title and code: GEN 242 Report writing  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.  
 3- Year/Level of program: Second Year Man. Eng. & Prod. Technology.  
 4- Credit hours: 3      Lectures 2 hrs      Tutorial 2 hrs  
 5- Names of lecturers contributing to the delivery of the course  
     Dr. Elsayed kamar  
     Course coordinator Dr. Elsayed kamar  
     External evaluator: None

## B- Statistical Information

No. of students attending the course:	No.	<span style="border: 1px solid black; padding: 0 5px;">100</span>	%	<span style="border: 1px solid black; padding: 0 5px;">100</span>
No. of students completing the course:	No.	<span style="border: 1px solid black; padding: 0 5px;">100</span>	%	<span style="border: 1px solid black; padding: 0 5px;">100</span>
Results:				
	No.		%	
Passed	94		94	
Failed	6		6	
Grading of successful students:				
		No.		%
Excellent		22		22
Very Good		22		22
Good		24		24
Pass		26		26

## C- Professional Information

### 1 – Course teaching

Topic Actually taught	No. of hours		Lecturer
	Planned	Actual	
Chapter 1: A guide to report writing	2	2	Dr. Elsayed kamar
Chapter 2: Technical report writing	4	4	
Chapter 3: Business letters	4	4	
Chapter 4: Technical writing ethics	4	4	
Chapter 5: Mechanics	4	4	
Chapter 6: Using words correctly	4	4	
Chapter 7: Characteristics of effective written communication	6	6	
Chapter 8: Connectives	2	2	
Total hours	28	28	

Topics taught as a percentage of the content specified:

>90 % ☒ 70-90 % ☐ <70% ☐

Reasons in detail for not teaching any topic.      The term actually was 12 weeks as during the last three weeks practical exams and revisions were carried out.

If any topics were taught which are not specified, give reasons in detail      None

Knowledge & Understanding	Intellectual Skills	Applied Skills	General & Transferable skills
a1 to a5	b1 to b4	c1 to c3	d1 to d3



## 2- Teaching and learning methods:

Lectures: Classical lecturing using the white board

Practical training/ laboratory:

Seminar/Workshop: None

Class activity:

Case Study: None

Other assignments/homework: Writing a report and a resume

If teaching and learning methods were used other than those specified, list and give reasons:

None

## 3- Student assessment:

Method of assessment	Percentage of total
Written examination	70 %
Oral examination	----
Practical/laboratory work	----
Other assignments/class work	30 %
Total	100 %
Members of examination committee	Dr. Elsayed kamar
Role of external evaluator	None

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies None

## 5- Administrative constraints

List any difficulties encountered None

## 6- Student evaluation of the course:

List any criticisms

None

## 7- Comments from external evaluator(s):

None

## 8-Written Exam Evaluation

- The exam level is convenient, considering the percentage of success.
- Elevated success in all questions indicate good understanding of the fundamentals of the subject.

## 9- Course enhancement:

Progress on actions identified in the previous year's action plan: None

Action State whether or not completed and give reasons for any non-completion None

## 10- Action plan for academic year 2014 – 2015

Actions required	Completion date	Person responsible
None		
Course coordinator:	Dr. Elsayed kamar	
Signature:		
Date:	1/10/2014	

# Annual Course Report

## Academic year: 2013-2014

### Semester: Spring

#### A- Basic Information

- 1- Title and code: (MNF 216) Machine Drawing II
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- Year/Level of program: Second Year/Sophomore
- 4- Credit hours: 3      Lectures 2hrs    Tutorial 4hrs    Practical -
- 5- Names of lecturers contributing to the delivery of the course
- Prof. Dr. Nabil Gadallah  
Course coordinator Prof. Dr. Nabil Gadallah  
External evaluator

#### B- Statistical Information

No. of students attending the course:      No. 123      % 100

No. of students completing the course:      No. 123      % 100

##### Results:

	No.	%
Passed	114	92.7
Failed	9	7.3

Grading of successful students:		
Grade	No.	%
A	20	16.3
B	19	15.4
C	31	25.2
D	44	35.8

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
Welded Joints	4	Prof. Dr. Nabil Gadallah
Riveted Joints	4	
Journal Bearings	4	
Journal Bearings	4	
Rolling Bearings	4	
Gears- Gear Geometry .	4	
Spur – Helical Gears	4	
Bevel Gears	4	
Worm Gears	4	
Mechanical transmission	4	
Oil seals	4	
Springs	6	
Valves	6	
Revision	4	
<b>Total</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 % 100      70-90 %         <70% ....

Reasons in detail for not teaching any topic      None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

## 2- Teaching and learning methods:

### Lectures:

Course notes

- Machine Drawing (2) by: Prof. Nabil Gadallah, Modern Academy for Engineering & Technology, 2013.
- Standardized parts by: Prof. Mamdouh saber, Modern Academy for Engineering & Technology, 2005.

### Practical training/ laboratory:

Seminar/Workshop:

Class activity:

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	20	20
Mid-Term Exam	10	10
Total	100	100

Members of examination committee

Prof.Dr. Nabil Gadallah

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies

## 5- Administrative constraints

List any difficulties encountered

None

6- Student evaluation of the course: 78%

Response of course team Non

List any criticisms Non

7- Comments from external evaluator(s): Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2014 – 2015**

**Actions required**

Non

**Completion date**

**Person responsible**

**Course coordinator:** Prof. Dr Nabil Gadallah

**Signature:**

**Date:** 2/8/2014

# Annual Course Report

## Academic year: 2013-2014

### Semester: Summer

#### A- Basic Information

- 1- Title and code: (MNF 216) Machine Drawing II
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- Year/Level of program: Second Year/Sophomore
- 4- Credit hours: 3      Lectures 2hrs    Tutorial 4hrs    Practical -
- 5- Names of lecturers contributing to the delivery of the course
- Prof. Dr. Nabil Gadallah
- Course coordinator Prof. Dr. Nabil Gadallah
- External evaluator

#### B- Statistical Information

No. of students attending the course:      No. 27      % 100

No. of students completing the course:      No. 27      % 100

Results:

	No.	%
Passed	22	81.5
Failed	5	18.5

Grading of successful students:		
Grade	No.	%
A	1	3.7
B	4	14.8
C	12	44.5
D	5	18.5

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
Welded Joints	4	Prof. Dr. Nabil Gadallah
Riveted Joints	4	
Journal Bearings	4	
Journal Bearings	4	
Rolling Bearings	4	
Gears- Gear Geometry .	4	
Spur – Helical Gears	4	
Bevel Gears	4	
Worm Gears	4	
Mechanical transmission	4	
Oil seals	4	
Springs	6	
Valves	6	
Revision	4	
<b>Total</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 % 100      70-90 %         <70% ....

Reasons in detail for not teaching any topic      None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

## 2- Teaching and learning methods:

### Lectures:

Course notes

- Machine Drawing (2) by: Prof. Nabil Gadallah, Modern Academy for Engineering & Technology, 2013.
- Standardized parts by: Prof. Mamdouh saber, Modern Academy for Engineering & Technology, 2005.

### Practical training/ laboratory:

Seminar/Workshop:

Class activity:

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

## 3- Student assessment:

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	20	20
Mid-Term Exam	10	10
Total	100	100

Members of examination committee

Prof. Nabil Gadallah

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

Adequate to some extent

Inadequate

List any inadequacies

## 5- Administrative constraints

List any difficulties encountered

None

## 6- Student evaluation of the course:

78%

Response of course team

Non

List any criticisms

Non

## 7- Comments from external evaluator(s):

None

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

### 9- Action plan for academic year 2014 – 2015

**Actions required**

Non

**Completion date**

**Person responsible**

**Course coordinator:** Prof. Dr Nabil Gadallah

**Signature:**

**Date:** 2/9/2014

**2014/2015**

**Junior, Fifth Semester**

Code	Course
MTH 305	Math-5 (Introduction to Probability and Statistics)
MNF 311	Fluid Mechanics
MNF 321	Metal Cutting Theory
MNF 312	Computer Applications-1
MNF 322	Machine Design-1
ELC 316	Electro Engineering
MNF 361	Seminar-1.

**Junior, Sixth Semester**

Code	Course
MNF323	Foundry Technology
MNF313	Computer Applications-2
MNF324	Machine Design-2
MNF325	Engineering Metrology
MNF314	Thermodynamics
ELC 317	Electric Machines
MNF362	Seminar-2.



## Semester's Course Report Academic year 2014-2015

### A- Basic Information

- 1- Course Code & Title: (MTH 305) Introduction to Prob. and Statistics
- 2- Program(s) on which this course is given: Manufacturing Engineering and Prod. Tech. BSc Prog.
- 3- Year/Level of program: Fifth Semester (Junior)
- 4- Credit hours  
Credit: 3 hrs Lectures: 2 hrs Tutorial: 2 hrs
- 5- Names of lecturers contributing to the delivery of the course: Dr. S. Shenawy
- 6- Course coordinator: Dr. S. Shenawy
- 7- External evaluator: Non

### B- Statistical Information

- 1- No. of students attending the course:
- 2- No. of students completing the course:
- 3- Results:

No.	109	100	%
No.	109	100	%

	No.	%
Passed	95	87.16
Failed	14	12.84

Grading of successful students:		
Grade	No.	%
Excellent	13	15.23
Very Good	29	24.87
Good	28	25.38
Pass	25	22.94

### C- Professional Information

#### 1 – Course teaching

Topic		Lecture	Actual	Tutorial hours
1	Introduction, Sample space, Axioms of probability	2	2	6
2	Conditional probability Bay's theorem	2	2	6
3	Random variables.	1	1	3
4	Binomial distribution.	2	2	6
5	Normal distribution.	1	1	3
6	Cumulative distribution.	1	1	3
7	Standard normal distribution.	1	1	3
8	Introduction to Statistics, measure of location (sample mean)	2	1	6
9	Median and mode.	1	1	3
10	Measures of variations	2	2	6
Total hours		15	14	45

Topics taught as a percentage of the content specified:

More than 90 %

Reasons in detail for not teaching any topic: Non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's: A1, A2, A5, B1, B2, B3, B7, B11, C1, C2, C12, D3, D7

**2- Teaching and learning methods:**

<b>Lectures:</b>	Lecture, discussions, tutorials, problem solving
<b>Class activity</b>	Exercises; solution of problems
<b>Case Study:</b>	Selected case studies
<b>Other assignments/homework:</b>	Bi-weekly assignments and reports

If teaching and learning methods were used other than those specified, give reasons: Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	70	70
Oral examination	Non	0
Practical/laboratory work	Non	0
Other assignments/class work	15	15
Mid-Term Exam	15	15
Total	100	100

Members of examination committee: Dr. S. Shenawy

Role of external evaluator: Non

**4- Facilities and teaching materials:**

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies:

**5- Administrative constraints** (List any difficulties encountered) None**6- Student evaluation of the course:**

	List any criticisms	Response of course team
(a)	They want to study some applications in manufacturing and production technology.	They are completely right. Next semester we will add such examples.

**7- Comments from external evaluator(s):** None**8- Written Exam Evaluation**

The results of the course are normally distributed with mean at 68% and with standard deviation 18. This means that the main objectives of the course are achieved for most of the students.

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

Actions required	Planned Completion date	Accomplishment
This is the first semester	Non	Non

**9- Action plan for academic year 2015 – 2016**

Actions required	Completion date	Person responsible
Adding more examples related to manufacturing technology	June 2015	Dr S. Shenawy

Course coordinator: Prof. Dr S. Shenawy

Signature:

Date: January 11, 2015

# Semester's Course Report

## Academic year: 2014-2015

### Semester: Fall

#### A- Basic Information

- 1- Title and code: (MNF 311) Fluid Mechanics  
 2- Program(s) on which this course is given: Manufacturing Eng. and Prod. Tech. BSc. Program  
 3- Year/Level of program: Third Level  
 4- Credit hours: 3 Lec.: 2 Tutorial: 1 Practical: 2 Pre-requisite: MTH 102  
 5- Names of lecturers contributing to the delivery of the course  
     Dr. Abdelmagid A. Abdalla  
     Course coordinator Dr. Abdelmagid A. Abdalla  
     External evaluator: None

#### B- Statistical Information

No. of students attending the course: No. 114 %   
 No. of students completing the course: No. 114 %

Results:

	No.	%
Passed	103	90.35
Failed	11	9.65

Grading of successful students:

	No.	%
Excellent	5	4.38
Very Good	14	12.3
Good	38	33.3
Pass	46	40.35

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
• Introduction: definition of fluids, dimensions and units, fluid properties.	3	2	3
• Fluid statics: pressure at a point, pressure field, pressure measurement, hydrostatic forces acting on plane and curved surfaces, buoyancy, floatation, and stability.	6	2	6
• Fluid kinematics: velocity field, acceleration field, Reynolds's transport theorem.	6	2	6
• Conservation laws: conservation of mass- continuity equation, conservation of linear and angular momentum, conservation of energy	5	2	5
• Similitude, dimensional analysis, and modeling: dimensional analysis, Buckingham Pi theorem, determination of Pi terms by inspection, Common dimensionless groups in fluid mechanics, correlation of experimental data, modeling and similitude, some typical model studies.	4	4	6
• Viscous Flow in Pipes: general characteristics of pipe flow, fully developed laminar flow, fully developed turbulent flow, dimensional analysis of pipe flow, pipe flow examples, pipe flow rate measurement.	2	0	4
<b>Total hours</b>	<b>30</b>	<b>12</b>	<b>30</b>

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic Shortage of time

If any topics were taught which are not specified, give reasons in detail None

**2- Teaching and learning methods:****Lectures:** Weekly Lecture**Practical:** Weekly lab.**Other assignments/homework:** Bi-weekly assignments**If teaching and learning methods were used other than those specified, list and give reasons:** Non**3- Student assessment:****Method of assessment****Percentage of total**

Written examination

60 %

Oral examination

----

Practical/laboratory work

20 %

Other assignments/class work

10 %

Mid-Term Exam

10 %

**Total****100 %****Members of examination committee**

Dr. Abdelmagid A. Abdalla

**Role of external evaluator**

None

**4- Facilities and teaching materials:**

Totally adequate

.Yes.

Adequate to some extent

Inadequate

List any inadequacies

**5- Administrative constraints**

List any difficulties encountered

**6- Student evaluation of the course:**

List any criticisms	Response of course team
➤ Students do not understand well from an eng In the lab due to its low voice	➤ Dr. Abdalla talked to him to raise his voice during explaining the experiments.

**7- Comments from external evaluator(s):** Non**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2015 – 2016**

Actions required

Completion date

Person responsible

Non

**Course coordinator:**

Dr Abdelmagid A. Abdalla

**Signature:****Date:**

28/9/2015

## Fall Course Report 2014/2015

### A- Basic Information

1- Title and code: MNF 321: Metals Cutting Theories

2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.

3- Year/Level of program: 3<sup>rd</sup> Level / Fall

4- Unit hours: 3 Lectures 2hrs Tutorial 1 Hrs Practical 2 Hrs

5- Names of lecturers contributing to the delivery of the course: Dr. M. Merdan

Course coordinator: Dr. M. Merdan

External evaluator: None

### B- Statistical Information

No. of students attending the Exam: 131

Grades	No. of Students	%
<b>+A</b>	<b>1</b>	<b>0.763</b>
<b>A</b>	<b>11</b>	<b>8.397</b>
<b>-A</b>	<b>11</b>	<b>8.397</b>
<b>+B</b>	<b>15</b>	<b>12.450</b>
<b>B</b>	<b>15</b>	<b>12.450</b>
<b>+C</b>	<b>23</b>	<b>17.557</b>
<b>C</b>	<b>12</b>	<b>9.160</b>
<b>+D</b>	<b>19</b>	<b>14.504</b>
<b>D</b>	<b>11</b>	<b>8.397</b>
<b>-D</b>	<b>11</b>	<b>8.397</b>
<b>F</b>	<b>2</b>	<b>1.527</b>

% success: 98.473

### C- Professional Information

#### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
Introduction; Definition of machining system, manufacturing processes and elements of machining system.	2	2	2
Machining Deviations; reasons, types, dimensional deviation and ISO system of tolerances, definitions and denotations of positional & geometric deviations, standardization and measurement of surface roughness.	6	1	4
Cutting tools failures, Cutting tools materials; classification and properties; tools geometries.	2	2	3
Chip formation; evaluation of amount of deformation using coefficient of chip upsetting, $k$ , and shear angle. Study of the effects of cutting conditions upon $k$ and $\xi_1$ .	2	1	4
Integrity of machined surfaces; Work hardening, residual stresses, and surface roughness	2		2
Cutting forces calculation in oblique and orthogonal cuttings, cutting forces measurement, and study of the effects of cutting conditions.	2	2	3

Heat generation when metal cutting, sources and heat distribution, and study of the effects of cutting parameters.	2	1	2
Cutting tools wear; types and curves of wear, Taylor's equation T-v relationship, and effects of cutting parameters.	2	2	4
Determination of optimum Cutting conditions; v, s, and t.	2	2	
Productivity when rough and fine metal cutting operations	2		
Production costs determination	2		
Gears manufacturing; form and generating methods	2		4
Jigs and fixtures design	2	2	2
Total	30	15	30

- Topics taught as a percentage of the content specified:  
>90 %  70-90 %  <70%
- Reasons in detail for not teaching any topic
- If any topics were taught which are not specified, give reasons in data

## 2- Teaching and learning methods:

- Lectures:
- Practical training/ laboratory:
- Seminar/Workshop:
- Class activity:
- Case Study:
- Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

None

## 3- Student assessment:

### Method of assessment

- Written examination
- Oral examination
- Practical/laboratory work
- Other assignments/class work
- Mid-Term Exam

Total

Members of examination committee

Role of external evaluator

### Percentage of total

Dr. M. Merdan

none

## 4- Facilities and teaching materials:

- Totally adequate
- Adequate to some extent
- Inadequate
- List any inadequacies

## 5- Administrative constraints

None

None

## 6- Student evaluation of the course:

None

## 7- Comments from external evaluator(s):

None

## Response of course team

None

**8- Course enhancement:**

- **Progress on actions identified in the previous year's action plan:** None
- **Action State whether or not completed and give reasons for any non completion:** None

**9- Action plan for academic year 2015– 2016**

<b>Actions required</b>	<b>Completion date</b>	<b>Person responsible</b>
None		

**Course coordinator:** Dr. M. Merdan

**Signature:** M. Merdan

**Date:** 17/10/2015

# Semester's Course Report

## Academic year: 2014-2015

### Semester: Fall

#### A- Basic Information

- 1- Title and code: (MNF 312) Computer Applications I
- 2- Program(s) on which this course is given: Manufacturing Eng. and Prod. Tech. BSc. Prog.
- 3- Year/Level of program: Third Year
- 4- Credit hours: 3      Lec. 0      Tutorial 0      Practical 6      Pre-requisit: CMP110
- 5- Names of lecturers contributing to the delivery of the course
- Prof. Dr. Nabil Gadallah
- Course coordinator Prof. Dr. Nabil Gadallah
- External evaluator

#### B- Statistical Information

No. of students attending the course:      No. 136      % 100

No. of students completing the course:      No. 136      % 100

##### Results:

	No.	%
Passed	135	99.3
Failed	1	0.7

##### Grading of successful students:

	No.	%
Excellent	20	14,7
Very Good	35	25.7
Good	51	37.6
Pass	29	21.3

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
Introduction to computer applications:		Prof. Dr. Nabil Gadallah
• Computer graphics (Solidworks)	6	
• Engineering analysis (Matlab)		
• Solid modelling techniques in art design	6	
• Extrusion & Revolve	6	
• Applications	12	
• Sweep and Lofting	6	
• Assemblies	12	
• Detail Drawing (drafting)	12	
Introduction to MATLAB	6	
• Introduction & basic vector and matrix operations.	6	
• Polynomials and solution of linear equations	6	
• Programming and applications	6	
• Solid modelling techniques in art design	6	
<b>Total</b>	<b>90</b>	

Topics taught as a percentage of the content specified:

>90 % 100      70-90 %         <70% ...

Reasons in detail for not teaching any topic      None

If any topics were taught which are not specified, give reasons in detail



None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

## 2- Teaching and learning methods:

### Lectures:

**Practical training/ laboratory:** Matlab & Solid works Packages in Lab

### Seminar/Workshop:

Two Seminars were arranged by the students:

(a) MATLAB Applications

(b) Computer graphics (Solid works)

**Class activity:** Solid Modeling Graphics & MatLab Applications

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:**

Non

## 3- Student assessment:

Method of assessment	Percentage of total
Written examination	60 %
Oral examination	----
Practical/laboratory work	20 %
Other assignments/class work	10 %
Mid-Term Exam	10 %
<b>Total</b>	<b>100 %</b>
<b>Members of examination committee</b>	Dr. Nabil Gadallah
<b>Role of external evaluator</b>	Non

## 4- Facilities and teaching materials:

Totally adequate .Yes.  
 Adequate to some extent  
 Inadequate  
 List any inadequacies

## 5- Administrative constraints

List any difficulties encountered None

## 6- Student evaluation of the course: None

## 7- Comments from external evaluator(s): Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

## 9- Action plan for academic year 2015 – 2016

Actions required	Completion date	Person responsible
Non		

**Course coordinator:** Prof. Dr Nabil Gadallah

**Signature:**

**Date:** 28/9/2015

**Semester's Course Report**  
**Academic year: 2014-2015**  
**Semester: Spring**

**A- Basic Information**

- 1- Title and code: (MNF 312) Computer Applications I  
2- Program(s) on which this course is given: manufacturing Eng. & Production and Tech.  
3- Year/Level of program: Third Level  
4- Credit hours: 3    Lec. : 0    Tutorial: 0    Practical: 6    Pre-requisit: CMP110  
5- Names of lecturers contributing to the delivery of the course  
Prof. Dr. Nabil Gadallah  
Course coordinator Prof. Dr. Nabil Gadallah  
External evaluator: None

**B- Statistical Information**

No. of students attending the course:	No. 6	% <input type="text" value="100"/>
No. of students completing the course:	No. 6	% <input type="text" value="98"/>
Results:		
	No.	%
Passed	5	83.3
Failed	1	16.7
Grading of successful students:		
	No.	%
Excellent	0	0
Very Good	1	16.7
Good	2	33.3
Pass	2	33.3

**C- Professional Information**

**1 – Course teaching**

Topic Actually taught	No. of hours	Lecturer
Introduction to computer applications: • Computer graphics (Solidworks) • Engineering analysis (Matlab)	6	Prof. Dr. Nabil Gadallah
• Solid modelling techniques in art design	6	
• Extrusion & Revolve	6	
• Applications	12	
• Sweep and Lofting	6	
• Assemblies	12	
• Detail Drawing (drafting)	12	
Introduction to MATLAB	6	
• Introduction & basic vector and matrix operations.	6	
• Polynomials and solution of linear equations	6	
• Programming and applications	6	
• Solid modelling techniques in art design	6	
<b>Total</b>	<b>90</b>	

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic      None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

## 2- Teaching and learning methods:

### Lectures:

**Practical training/ laboratory:** Matlab & Solid works Packages in Lab

### Seminar/Workshop:

Two Seminars were arranged by the students:

(c) MATLAB Applications

(d) Computer graphics (Solid works)

**Class activity:** Solid Modeling Graphics & MatLab Applications

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:**

Non

## 3- Student assessment:

### Method of assessment

### Percentage of total

Written examination

60 %

Oral examination

----

Practical/laboratory work

20 %

Other assignments/class work

10 %

Mid-Term Exam

10 %

**Total**

**00 %**

**Members of examination committee**

Dr. Nabil Gadallah

**Role of external evaluator**

Non

## 4- Facilities and teaching materials:

Totally adequate

Yes

Adequate to some extent

Inadequate

List any inadequacies

## 5- Administrative constraints

List any difficulties encountered

## 6- Student evaluation of the course: None

## 7- Comments from external evaluator(s): Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

## 9- Action plan for academic year 2015 – 2016

Actions required

Completion date

Person responsible

Non

**Course coordinator:** Prof. Dr Nabil Gadallah

**Signature:**

**Date:** 28/9/2015

# Semester Course Report (2014/2015) Fall Semester

## A- Basic Information

- 1- Title and code: (MNF322) Machine Design (I)  
 2- Program(s) on which this course is given: Manufacturing Engineering and Prod. Tech. BSc. Prog.  
 3- Year/Level of program: Third Level Manufacturing Engineering, Fall Semester  
 4- Credit hours: 3 Lectures  Tutorial  Practical  Total   
 5- Names of lecturers contributing to the delivery of the course  
 Assist. Prof. Serage Eldin Khalifa  
 Course coordinator: Assist. Prof. Serage Eldin Khalifa

## B- Statistical Information

No. of students attending the course: No.  %   
 No. of students completing the course: No.  %

Results:

	No.	%		Grading of successful students:	
Passed	111	84.733		No.	%
Failed	20	15.3		Excellent	4 3.05
				Very Good	20 15.26
				Good	40 30.53
				Pass	47 35.87

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Tutorial hours
• Introduction; definitions, design phases and design considerations, mechanical properties of metals	2	1
• Analysis of stresses at a point	1	4
• Determination of principal stresses for a stress element	2	4
• Design for static strength	4	8
• Design for Dynamic strength	6	8
• Design of Shafts	2	4
• Design of Keys, Feathers & splines	2	3
• Design of Threaded Joints, Fasteners and Connections	6	6
• Design of Welded Joints	1	3
• Design of Helical Springs	4	4
<b>Total hours</b>	<b>30</b>	<b>45</b>

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail None

### 2- Teaching and learning methods:

Lectures:

Tutorials:

Practical training/ laboratory:

Seminar/Workshop:

**Class activity:** Numerical exercises; solution of problems by calculator or computer and data show, using computer programs.

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:** None

**3- Student assessment:**

Method of assessment	Percentage of total
Written examination	70 %
Oral examination	---
Practical/laboratory work	---
Other assignments/class work	10 %
Mid-Term Exam	20 %
Total	100 %
Members of examination committee	Assist. Prof. Serage Eldin Khalifa
Role of external evaluator	None

**4- Facilities and teaching materials:**

Totally adequate	.Yes.
Adequate to some extent	.....
Inadequate	.....
List any inadequacies	None

**5- Administrative constraints**

List any difficulties encountered None

**6- Student evaluation of the course:**

List any criticisms None

**7- Comments from external evaluator(s):** None

**8- Course Enhancement:**

Progress on actions identified in the previous year's action plan: None

Action State whether or not completed and give reasons for any non-completion None

**9- Action plan for academic year 2015 – 2016**

Actions required	Completion date	Person responsible
None		

**Course coordinator:** Prof. Dr Serage Eldin Khalifa

**Signature:**

**Date:** 21/9/2015

# Semester Course Report (2014/2015) Spring Semester

## A- Basic Information

- 1- Title and code: (MNF322) Machine Design (I)  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod.Tech. BSc. Prog.  
 3- Year/Level of program: Third Level Manufacturing Engineering, Spring Semester  
 4- Credit hours: 3 Lectures  Tutorial  Practical  Total   
 5- Names of lecturers contributing to the delivery of the course  
 Assist. Prof. Serage Eldin Khalifa  
 Course coordinator: Assist. Prof. Serage Eldin Khalifa

## B- Statistical Information

No. of students attending the course: No.  %   
 No. of students completing the course: No.  %

Results:

	No.	%		Grading of successful students:	
Passed	20	90.909		No.	%
Failed	2	9.09		Excellent	0
				Very Good	0
				Good	4
				Pass	16
					72.72

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Tutorial hours
• Introduction; definitions, design phases and design considerations, mechanical properties of metals	2	1
• Analysis of stresses at a point	1	4
• Determination of principal stresses for a stress element	2	4
• Design for static strength	4	8
• Design for Dynamic strength	6	8
• Design of Shafts	2	4
• Design of Keys, Feathers & splines	2	3
• Design of Threaded Joints, Fasteners and Connections	6	6
• Design of Welded Joints	1	3
• Design of Helical Springs	4	4
<b>Total hours</b>	<b>30</b>	<b>45</b>

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail None

### 2- Teaching and learning methods:

Lectures:

Tutorials:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Numerical exercises; solution of problems by calculator or computer and data show, using computer programs.

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:  
None

### 3- Student assessment:

Method of assessment	Percentage of total
Written examination	<input type="text" value="70 %"/>
Oral examination	<input type="text" value=""/>
Practical/laboratory work	<input type="text" value=""/>
Other assignments/class work	<input type="text" value="10 %"/>
Mid-Term Exam	<input type="text" value="20 %"/>
Total	<input type="text" value="100 %"/>
Members of examination committee	Assist. Prof. Serage Eldin Khalifa
Role of external evaluator	None

### 4- Facilities and teaching materials:

Totally adequate	<input type="text" value="Yes"/>
Adequate to some extent	<input type="text" value=""/>
Inadequate	<input type="text" value=""/>
List any inadequacies	None

### 5- Administrative constraints

List any difficulties encountered: None

### 6- Student evaluation of the course:

List any criticisms: None

7- Comments from external evaluator(s): None

### 8- Course Enhancement:

Progress on actions identified in the previous year's action plan: None

Action State whether or not completed and give reasons for any non-completion: None

### 9- Action plan for academic year 2015 – 2016

Actions required	Completion date	Person responsible
None		

Course coordinator: Prof. Dr Serage Eldin Khalifa

Signature:

Date: 21/9/2015

# Annual Course Report Academic year 2014-2015

## A- Basic Information

- 1- Title and code: (ELC316) Electro Engineering  
 2- Program(s) on which this course is given: Manufacturing Eng. and Prod. Tech. BSc Prog.  
 3- Year/Level of program: Third Level  
 4- Credit hours: 3      Lectures 2 hrs      Tutorial 1 hrs      Practical 2 hr      Total 5 hrs  
 5- Names of lecturers contributing to the delivery of the course  
     Prof. Dr. Ir. Mostafa Sayed AFIFI  
     Course coordinator Prof. Dr. Ir. Mostafa Sayed AFIFI  
     External evaluator

## B- Statistical Information

No. of students attending the course:      No. 127      % 100  
 No. of students completing the course:      No. 127      % 100  
 Results:

	No.	%
Passed	125	98.43
Failed	2	1.57

Grading of successful students:		
	No.	%
Excellent	50	38.4
Very Good	28	23.1
Good	25	19.7
Pass	22	17.3

## C- Professional Information

### 1 – Course teaching

Topic Actually taught	No. of hours	Lecturer
• Introduction: Needs for electric engineering and fluid flow analogy	4	Prof. Dr. Ir. Mostafa Sayed AFIFI
• Electromagnetic standards	6	
• Charges, Currents, Voltages and Fields	4	
• Electric and Electronic Circuits	4	
• Transmission lines and propagation	6	
• Electric Forces and Radiated fields		
• Classification and basic designs	4	
• AC and DC arrangements	4	
• Direction of propagation in air and on wires	6	
• Ohms Law and circuit analysis		
• Node Voltages and Mesh Currents	6	
• Practical applications of strain gauges and Wheatstone Br	8	
• Operational Amplifiers, Inversion, non-inversion, Adders and subtractions.	6	
• Capacitance and Inductance, its construction, calculations and first order transients. Applications and second order transients.	8	
• LabVIEW application	6	
• Digital applications and stepper motors	6	
• Analysis and Design of practical Circuits and Motors	6	
<b>Total hours</b>	<b>84</b>	

Topics taught as a percentage of the content specified:

>90 % ☒      70-90 % ☐      <70% ☐

Reasons in detail for not teaching any topic      Semiconductors were shortened  
 If any topics were taught which are not specified, give reasons in detail Non



## 2- Teaching and learning methods:

**Lectures:** Classical lecturing using the white board and computer supported learning

**Practical training/ laboratory:** Practical training and experimental measurements in Lab

**Seminar/Workshop:** Non

**Class activity:** Numerical exercises; solution of problems by computer and data show, using computer programs; MATLAB.

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly and weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:**  
Non

## 3- Student assessment:

Method of assessment	Percentage of total
Written examination	65.0 %
Oral examination	----
Practical/laboratory work	20 %
Other assignments/class work	10 %
Mid-Term Exam	5 %
Total	100 %
Members of examination committee	Prof. Dr. Ir. Mostafa S. Afifi
Role of external evaluator	Non

## 4- Facilities and teaching materials:

Totally adequate	Yes
Adequate to some extent	.....
Inadequate	.....
List any inadequacies:	Non

## 5- Administrative constraints

List any difficulties encountered

- Limitation of lecture hours is limiting the full verification of course objectives.
- The number of operating Lab experiments are being expanded.

## 6- Student evaluation of the course:

List any criticisms

Indications are that high response from the Students to electronic courses.

**Response of course team**

The introduction of the course is directed to explanation of the importance of electronic engineering to mechanical applications. Also more applications are directed to mechanical facilities, such as the strain gauges, electronic ignition and power steering with modeling of mechanical system with electric circuits.

## 7- Comments from external evaluator(s):

None

**Response of course team**

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan:

Actions required	Planned Completion date	Accomplishment
Put more functional experiments in the lab.	2015	
Action State whether or not completed and give reasons for any non-completion		Non

## 9- Action plan for academic year 2015 – 2016

Actions required	Completion date	Person responsible
1. Formation of new details of ELC316 Electro Engineering	July 2015	Prof. Dr. Ir. Mostafa Afifi

**Course coordinator:** Prof. Dr. Ir. Mostafa Afifi  
**Signature:**  
**Date:** 14/9/2015

# Semester's Course Report

## Academic year: 2014-2015

### Semester: Fall

#### A- Basic Information

- 1- Title and code: (MNF 361) Seminar-1
- 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.
- 3- Year/Level of program: Junior, 5th semester
- 4- Credit hours  
 Credit Hours: 1      Lectures: -      Tutorial: 2      Practical: -  
    Pre-requisit:      Non
- 5- Names of lecturers contributing to the delivery of the course  
 Dr. Abdelmagid A. Abdalla  
 Course coordinator Prof. Dr. Nabil Gadallah  
 External evaluator: None

#### B- Statistical Information

No. of students attending the course:	No. 137	% <input type="text" value="100"/>
No. of students completing the course:	No. 137	% <input type="text" value="100"/>
Results:		
	No.	%
Passed	135	100
Failed	0	0
Grading of successful students:		
	No.	%
Excellent	89	64.96
Very Good	34	24.82
Good	13	9.49
Pass	1	0.73

#### C- Professional Information

##### 1 – Course teaching

Topic Actually taught	Lecture hours	Tutorial hours	Practical hours
<ul style="list-style-type: none"> <li>The course consists of a number of seminars concerned with the development of technology and its impact to society, It covers the following areas:               <ul style="list-style-type: none"> <li>✓ The definition and evolution of technology.</li> <li>✓ Technology and society</li> <li>✓ Technology and Innovation.</li> <li>✓ Technology selection decision and social considerations</li> <li>✓ Engineering design.</li> <li>✓ Engineering problem solving.</li> <li>✓ Human and social considerations in engineering design, and social problems.</li> <li>✓ Concepts of the exploitation of technology for the advancement of human kind.</li> </ul> </li> </ul>		30	
<b>Total hours</b>		<b>30</b>	

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic      None

If any topics were taught which are not specified, give reasons in detail None

**2- Teaching and learning methods:**

**Lectures:**

**Practical training/ laboratory:**

**Seminar/Workshop:** weekly individual student's seminar

**Class activity:**

**Case Study:**

**Other assignments/homework:**

If teaching and learning methods were used other than those specified, list and give reasons:

Non

**3- Student assessment:**

**Method of assessment**

**Percentage of total**

Written examination

Oral examination

100%

Practical/laboratory work

Other assignments/class work

Mid-Term Exam

**Total**

**100 %**

**Members of examination committee**

**Role of external evaluator**

Non

**4- Facilities and teaching materials:**

Totally adequate

Yes

Adequate to some extent

Inadequate

List any inadequacies

**5- Administrative constraints**

List any difficulties encountered None

**6- Student evaluation of the course:** None

**7- Comments from external evaluator(s):** Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2015 – 2016**

Actions required

Completion date

Person responsible

Non

**Course coordinator:** Dr. Abdelmagid A. Abdalla

**Signature:**

**Date:**

28/9/2015

## Spring Semester

## A- Basic Information

- 1- **Title and code:** Computer Applications II, MNF313  
2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc. Prog.  
3- **Year/Level of program:** third year  
4- **Unit hours**      Lectures  hrs      Tutorial - hrs      Practical       Total 4 hrs  
5- **Names of lecturers contributing to the delivery of the course**

Dr. Atef Afifi

Course coordinator Dr. Atef Afifi

External evaluator	None
--------------------	------

## B- Statistical Information

**No. of students attending the course:** No. **133** **100%**

**No. of students completing the course:** No. 133 100%

### Results:

	No.	%
<b>Passed</b>	116	87.22
<b>Failed</b>	17	12.78

**Grading of successful students:**

	No.	%
Excellent	33	28.4
Very Good	34	29.3
Good	17	14.6
Pass	32	27.7

## C- Professional Information

## 1 – Course teaching:

Topic Actually taught	Practical hours	Lecturer
Introduction to NC and CNC Machines	2	Dr Atef Afifi
Basic Definitions of G-Codes	2	
Different Types of G-Codes	4	
Basic Terminology of G-Code (FUNOC)	4	
Milling:		
– Work piece Installation	4	
– Determination of Zero Position	4	
– Definition and Applications of G58 , G52	4	
– Definition and Applications of G00	4	
– Definition and Applications of G01	4	
– Definition and Applications of G02 , G03	8	
Turning:		
– Definition and Applications of G58 , G52	4	
– Definition and Applications of G00	4	
– Definition and Applications of G01	4	
– Definition and Applications of G02 , G03	4	
Revisions	4	
Total Hours	60	

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic

If any topics were taught which are not specified, give reasons in detail

**2- Teaching and learning methods:**

Lectures:

Practical training/ laboratory:

Seminar/Workshop:

Class activity: Solutions of problems

Case Study:

Other assignments/homework:

If teaching and learning methods were used other than those specified, list and give reasons:

**3- Student assessment:**

Method of assessment	Percentage of total
----------------------	---------------------

Written examination	60%
---------------------	-----

Oral examination	----
------------------	------

Practical/laboratory work	20%
---------------------------	-----

Other assignments/class work/	10%
-------------------------------	-----

Mid-Term Exam	10%
---------------	-----

Total	100 %
-------	-------

Members of examination committee	Dr. Atef Afifi
----------------------------------	----------------

Role of external evaluator	None
----------------------------	------

**4- Facilities and teaching materials:**

Totally adequate	<input type="text" value="Yes"/>
------------------	----------------------------------

Adequate to some extent	<input type="text" value="-----"/>
-------------------------	------------------------------------

Inadequate	<input type="text" value="-----"/>
------------	------------------------------------

List any inadequacies	<input type="text" value="Non"/>
-----------------------	----------------------------------

**5- Administrative constraints**

List any difficulties encountered	<input type="text" value="none"/>
-----------------------------------	-----------------------------------

**6- Student evaluation of the course:**

List any criticisms	<input type="text" value="None"/>
---------------------	-----------------------------------

**7- Comments from external evaluator(s):**

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan:

Action State whether or not completed and give reasons for any non-completion

**9- Action plan for academic year 2015 – 2016**

Actions required	Completion date	Person responsible
<input type="text" value="None"/>		

Course coordinator: Dr Atef Afifi

Signature:

Date: September 2015

# Semester Course Report

## 2014-2015

### Spring Semester

#### A- Basic Information

1- Title and code: foundry technology, MNF 323

2- Program(s) on which this course is given: Manufacturing Eng. & Production Technology

3- Year/Level of program: 4<sup>th</sup> Level Manufacturing / 1<sup>st</sup> term

4- Credit hours: 3 Lectures 2 hrs Tutorial 1 hrs Practical 2 hrs

5- Names of lecturers contributing to the delivery of the course:

Assist Prof. Ibrahim mousa

Course coordinator: Assist Prof. Ibrahim mousa

External evaluator: None

#### B- Statistical Information

No. of students attending the course: 124

No. of students completing the course: 124

Results:

	No.	%
Passed	93	75
Failed	31	25

Grading of successful students:

	No.	%
Excellent	1	1.1
Very Good	8	8.6
Good	19	20.4
Pass	65	69.9

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
• Introduction to foundry	2	-	-
• Steps involved in casting advantages, limitations and implications of casting process	2	1	
• Pattern types, allowances for pattern, pattern materials, color coding and storing of patterns.	3	2	4
• Molding methods and processes, materials, equipment, molding sand ingredients, essential requirements	2	2	2
• sand preparation and control, testing, cores and core making	2	1	2
• Design considerations in casting, gating and risers, and directional solidification in casting	3	2	4
• Sand castings, pressure die casting, permanent mould casting, centrifugal casting, precision investment, casting shell molding, CO2 molding, continuous casting, squeeze casting, electro slag casting	4	2	6
• fettling, finishing, and casting defects	2	1	2
• Foundry remolding furnaces, selection of furnace, crucibles oil fired furnaces, electric furnaces cupola, calculation of cupola charges, hot blast cupola, degasification, inoculation, pouring equipment, and inspection of casting	4	2	6

• Need- Areas for mechanization, typical layout, sand reclamation techniques, and material handling	2	1	2
• Pollution control in foundry	2		
• Computers in casting process	2	1	2
<b>Total hours</b>	<b>30</b>	<b>15</b>	<b>30</b>

- **Topics taught as a percentage of the content specified:**

>90 %  70-90 %  <70%

- **Reasons in detail for not teaching any topic**
- **If any topics were taught which are not specified, give reasons in detail**

## 2- Teaching and learning methods:

- **Lectures:**
- **Practical training/ laboratory:**
- **Seminar/Workshop:**
- **Class activity:**
- **Case Study:**
- **Other assignments/homework:**

**If teaching and learning methods were used other than those specified, list and give reasons:**

None

## 3- Student assessment:

**Method of assessment**

**Points of total**

- **Written examination**
- **Oral examination**
- **Practical/laboratory work**
- **Other assignments/class work**
- **Mid-Term Exam**

**Total**

**100**

**Members of examination committee**

Assist Prof. Ibrahim Mousa

**Role of external evaluator**

None

## 4- Facilities and teaching materials:

- **Totally adequate**
- **Adequate to some extent**
- **Inadequate**
- **List any inadequacies**

## 5- Administrative constraints

**List any difficulties encountered**

None

## 6- Student evaluation of the course:

**List any criticisms**

**Response of course team**

None

None

## 7- Comments from external evaluator(s):

None

**Response of course team**

None



**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: None

Action State whether or not completed and give reasons for any non-completion None

**9- Action plan for academic year 2015– 2016**

**Actions required**

None

**Completion date**

**Person responsible**

None

**Course coordinator:** Assist. Prof. Ibrahim Mousa

**Signature:** Ibrahim Mosa

**Date:** September 2015

# Semester Course Report (2014/2015) Spring Semester

## A- Basic Information

- 1- Title and code: (MNF324) Machine Design (II)  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Prog.  
 3- Year/Level of program: Third Level Manufacturing Engineering, Spring Semester  
 4- Credit hours: 3      Lectures  Tutorial  Practical  Total   
 5- Names of lecturers contributing to the delivery of the course  
 Assist. Prof. Serage Eldin Khalifa

## B- Statistical Information

No. of students attending the course: No.  %   
 No. of students completing the course: No.  %   
 Results:

	No.	%		Grading of successful students:	
Passed	101	92.661		No.	%
Failed	8	7.339		Excellent	6    5.5
				Very Good	18    16.5
				Good	31    28.44
				Pass	46    42.2

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Tutorial hours
Hydrodynamic bearings theory	4	2
Hydrodynamic bearings design	2	6
Rolling contact bearings	6	8
Involute gear tooth	2	3
Spur gears	4	8
Helical gears	4	6
Bevel gears	4	6
Worm gears	4	6
<b>Total hours</b>	<b>30</b>	<b>45</b>

Topics taught as a percentage of the content specified:

>90 %       70-90 %       <70%

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail None

### 2- Teaching and learning methods:

Lectures:   
 Tutorials:   
 Practical training/ laboratory:   
 Seminar/Workshop:

**Class activity:** Numerical exercises; solution of problems by calculator or computer, drawing by AutoCAD 2004

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:**  
None

**3- Student assessment:**

Method of assessment	Percentage of total
Written examination	70 %
Oral examination	-----
Practical/laboratory work	-----
Other assignments/class work	10 %
Mid-Term Exam	20 %
Total	100 %
Members of examination committee	Assist. Prof. Serage Eldin Khalifa
Role of external evaluator	None

**4- Facilities and teaching materials:**

Totally adequate	Yes
Adequate to some extent	-----
Inadequate	-----
List any inadequacies	None

**5- Administrative constraints**

List any difficulties encountered      None

**6- Student evaluation of the course:**

List any criticisms      None

**7- Comments from external evaluator(s):**      None

**8- Course Enhancement:**

Progress on actions identified in the previous year's action plan:      None

Action State whether or not completed and give reasons for any non-completion      None

**9- Action plan for academic year 2015 – 2016**

Actions required	Completion date	Person responsible
None		

**Course coordinator:** Assist. Prof. Serage Eldin Khalifa

**Signature:**

**Date:** 21/9/2015

# Semester Course Report (2014/2015) Summer Semester

## A- Basic Information

- 1- Title and code: (MNF324) Machine Design (II)  
 2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc. Prog.  
 3- Year/Level of program: Third Level Manufacturing Engineering, Summer Semester  
 4- Credit hours: 3 Lectures  Tutorial  Practical  Total   
 5- Names of lecturers contributing to the delivery of the course  
 Assist Prof. Serage Eldin Khalifa

## B- Statistical Information

No. of students attending the course: No.  %   
 No. of students completing the course: No.  %   
 Results:

	No.	%		Grading of successful students:		
Passed	12	63.158			No.	%
Failed	7	36.842		Excellent	0	0
				Very Good	0	0
				Good	5	26.316
				Pass	7	36.842

## C- Professional Information

### 1 – Course teaching

Topic	Lecture hours	Tutorial hours
Hydrodynamic bearings theory	4	2
Hydrodynamic bearings design	2	6
Rolling contact bearings	6	8
Involute gear tooth	2	3
Spur gears	4	8
Helical gears	4	6
Bevel gears	4	6
Worm gears	4	6
Total hours	30	45

Topics taught as a percentage of the content specified:

>90 %  70-90 %  <70%

Reasons in detail for not teaching any topic None

If any topics were taught which are not specified, give reasons in detail None

### 2- Teaching and learning methods:

Lectures:

Tutorials:

Practical training/ laboratory:

Seminar/Workshop:

**Class activity:** Numerical exercises; solution of problems by calculator or computer, drawing by AutoCAD 2004

**Case Study:** Selected case studies

**Other assignments/homework:** Bi-weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:**

None

**3- Student assessment:**

Method of assessment	Percentage of total
Written examination	70 %
Oral examination	-----
Practical/laboratory work	-----
Other assignments/class work	10 %
Mid-Term Exam	20 %
Total	100 %

**Members of examination committee** Prof. Dr. Serage Eldin Khalifa

**Role of external evaluator** None

**4- Facilities and teaching materials:**

Totally adequate	Yes
Adequate to some extent	-----
Inadequate	-----
List any inadequacies	None

**5- Administrative constraints**

**List any difficulties encountered** None

**6- Student evaluation of the course:**

**List any criticisms** None

**4- Comments from external evaluator(s):** None

**8- Course Enhancement:**

**Progress on actions identified in the previous year's action plan:** None

**Action State whether or not completed and give reasons for any non-completion** None

**9- Action plan for academic year 2015 – 2016**

Actions required	Completion date	Person responsible
None		

**Course coordinator:** Prof. Dr Serage Eldin Khalifa

**Signature:**

**Date:** 21/9/2015

## Semester's Course Report

### Academic year: 2014 - 2015

### Semester: Spring

#### A- Basic Information

- 1- **Course Code & Title:** (MNF325) Engineering Metrology
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Junior
- 4- **Credit hours**  
Credit      3 hrs      Lectures    2 hrs      Tutorial    1 hrs      Practical    2 hr
- 5- **Names of lecturers contributing to the delivery of the course:** Prof. Dr. N Gadallah  
Dr Nasr Aref
- 6- **Course coordinator:** Dr Nasr Aref
- 7- **External evaluator:** Non

#### B- Statistical Information

**No. of students attending the course:**

No.	147	100	%
No.	125	85	%

**No. of students completing the course:**

**Results:**

	No.	%
Passed	120	96
Failed	5	4

**Grading of successful students:**

Grade	No.	%
A	30	24
B	39	31,2
C	30	24
D	21	16,8

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
Errors in measurements.	4	2	4
Light waves as standard of length.	4	2	4
Standard for dimensional tolerances.	2	1	2
Linear measurements.-Angular measurements and circular divisions.	2	1	2
Limits and limit gauge design.-Machine tool metrology.	2	1	2
Gear measurements.-Thread measurements	2	1	2
Surface roughness measurements	2	1	2
Standard for shape and positional deviations	2	1	2
3-D measuring machines	4	2	4
Computer software for engineering metrology	4	2	4
Revision	2	1	2
<b>Total hours</b>	<b>30</b>	<b>15</b>	<b>30</b>

Topics taught as a percentage of the content specified:

>90 % ☒ 100

70-90 % ☐

<70% ☐

Reasons in detail for not teaching any topic ☐ None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted, in addition to the seminars arranged during the students free day.

## 2- Teaching and learning methods:

Lecture: Weekly Lecture

Practical training/ laboratory: Weekly Lab.

Seminar/Workshop: ☒ Bi-weekly Seminars

Class activity:

Case Study:

Other assignments/homework: ☒ weekly assignments

If teaching and learning methods were used other than those specified, list and give reasons:

☒ Non

## 3- Student assessment:

Method of assessment	Points	%
Written examination	60	60
Oral examination	0	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

Members of examination committee

Dr. Nabil Gadallah & Dr Nasr Aref

Role of external evaluator

Non

## 4- Facilities and teaching materials:

Totally adequate

☒ Yes

Adequate to some extent

☐

Inadequate

☐

List any inadequacies

☒ Non

## 5- Administrative constraints

List any difficulties encountered:

None

## 6- Student evaluation of the course:

78%

Response of course team

Non

List any criticisms

Non

## 7- Comments from external evaluator(s):

Non

## 8- Course enhancement:

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

## 9- Action plan for academic year 2015 – 2016

Actions required

Completion date

Person responsible

Non

Course coordinator: Dr. Nasr Aref

Signature:

Date: 28/9/2015

## Semester's Course Report

### Academic year: 2014 - 2015

### Semester: Summer

#### A- Basic Information

- 1- **Course Code & Title:** (MNF325) Engineering Metrology
- 2- **Program(s) on which this course is given:** Manufacturing Eng. & Prod. Tech. BSc Prog.
- 3- **Year/Level of program:** Junior
- 4- **Credit hours**  

Credit	3 hrs	Lectures	2 hrs	Tutorial	1 hrs	Practical	2 hr
--------	-------	----------	-------	----------	-------	-----------	------
- 5- **Names of lecturers contributing to the delivery of the course:** Prof. Dr. N Gadallah  
Dr Nasr Aref
- 6- **Course coordinator:** Dr Nasr Aref
- 7- **External evaluator:** Non

#### B- Statistical Information

**No. of students attending the course:**

No.	9	100	%
No.	9	100	%

**No. of students completing the course:**

**Results:**

	No.	%
Passed	9	100
Failed	0	0

Grading of successful students:		
Grade	No.	%
A	1	11,111
B	5	55,555
C	2	22,222
D	1	11,111

#### C- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours
Errors in measurements.	4	2	4
Light waves as standard of length.	4	2	4
Standard for dimensional tolerances.	2	1	2
Linear measurements.-Angular measurements and circular divisions.	2	1	2
Limits and limit gauge design.-Machine tool metrology.	2	1	2
Gear measurements.-Thread measurements	2	1	2
Surface roughness measurements	2	1	2
Standard for shape and positional deviations	2	1	2
3-D measuring machines	4	2	4
Computer software for engineering metrology	4	2	4
Revision	2	1	2
<b>Total hours</b>	<b>30</b>	<b>15</b>	<b>30</b>



Topics taught as a percentage of the content specified:

>90 % ☒

70-90 % ☐

<70% ☐

Reasons in detail for not teaching any topic ☐ None

If any topics were taught which are not specified, give reasons in detail

None, all of the missed teaching hours were substituted

**2- Teaching and learning methods:**

Lecture: Weekly Lecture

Practical training/ laboratory: Weekly lab.

Seminar/Workshop: ☒ Bi-weekly Seminars

Class activity:

Case Study:

Other assignments/homework: ☒ weekly assignments

If teaching and learning methods were used other than those specified, list and give reasons:

☒ Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	60	60
Oral examination	0	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

Members of examination committee

Dr. Nabil Gadallah & Dr Nasr Aref

Role of external evaluator

Non

**4- Facilities and teaching materials:**

Totally adequate

☒ Yes

Adequate to some extent

☐

Inadequate

☐

List any inadequacies

☒ Non

**5- Administrative constraints**

List any difficulties encountered:

None

**6- Student evaluation of the course:**

78%

Response of course team

Non

List any criticisms

Non

**7- Comments from external evaluator(s):**

Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2015 – 2016**

Actions required

Completion date

Person responsible

Non

Course coordinator: Dr. Nasr Aref

Signature:

Date: 28/9/2015

# Semester's Course Report

## Academic year: 2014-2015

### Semester: Spring

#### A- Basic Information

- 1- Title and code: (MNF 314) Thermodynamics  
 2- Program(s) on which this course is given: Manufacturing Eng. and Prod. Tech. BSc. Program  
 3- Year/Level of program: Third Level  
 4- Credit hours: 3 Lec.: 2 Tutorial: 1 Practical: 2 Pre-requisite: MTH 102  
 5- Names of lecturers contributing to the delivery of the course  
     Dr. Abdelmagid A. Abdalla  
     Course coordinator Dr. Abdelmagid A. Abdalla  
     External evaluator: None

#### B- Statistical Information

No. of students attending the course:	No. 122	<div style="border: 1px solid black; padding: 2px;">100%</div>
No. of students completing the course:	No. 122	<div style="border: 1px solid black; padding: 2px;">100%</div>
<b>Results:</b>		
	No.	%
Passed	105	86
Failed	17	14
<b>Grading of successful students:</b>		
	No.	%
Excellent	5	4.1
Very Good	14	11.5
Good	38	31.15
Pass	48	39.35

#### C- Professional Information

##### 1 – Course teaching

Topic	Taught hours	Lecturer
• Introduction: Importance of thermodynamics, some applications. Mechanisms of heat transfer.	8	Dr. Abdelmagid A. Abdalla
• Concepts and definitions: System, boundary, surroundings. Closed, open, and isolated systems. Kinetic, potential, and internal energy. State of a system, process, cycle, reversible, and irreversible processes, and work.	10	
• Properties of a pure substance: Definition, phase diagram of water (p-v), (T-v), Tables of steam. Equation of state, and compressibility factor, specific heats ( $C_p$ & $C_v$ ).	10	
• First law of thermodynamics: Statement of the first law for cycle & process. Different forms for a control mass & control volume. Special cases (SSSF, USUF). Enthalpy	11	
• Second law of thermodynamics: Heat engine and heat pump, Kelvin–Planck and Clausius statements. Reversibility and factors affecting it, Carnot cycle and its efficiency, Thermodynamic temperature scales.	11	
• Entropy: Definition, Clausius inequality, entropy of a pure substance, entropy change in a process, entropy relation, entropy generation and principle of increase of it, entropy change of a solid, liquid, and ideal gas. Second law for a control volume, for SSSF, and USUF processes,	10	
<b>Total hours</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 % ☐ 70-90 % ☒ 80 <70% ☐

Reasons in detail for not teaching any topic Shortage of time. The actual term was 13 Weeks

If any topics were taught which are not specified, give reasons in detail None

**2- Teaching and learning methods:****Lectures:** Weekly Lecture**Practical:** Weekly lab.**Other assignments/homework:** weekly assignments**If teaching and learning methods were used other than those specified, list and give reasons:** Non**3- Student assessment:****Method of assessment****Percentage of total**

Written examination

60 %

Oral examination

----

Practical/laboratory work

20 %

Other assignments/class work

10 %

Mid-Term Exam

10 %

**Total****100 %****Members of examination committee**

Dr. Abdelmagid A. Abdalla

**Role of external evaluator**

None

**4- Facilities and teaching materials:**

Totally adequate

Yes.

Adequate to some extent

Inadequate

List any inadequacies

**5- Administrative constraints**

List any difficulties encountered None

**6- Student evaluation of the course:**

List any criticisms	Response of course team
➤ Students do not understand well from an engineer In the lab due to its low voice	➤ Dr. Abdalla talked to him to raise his voice during explaining the experiments.

**7- Comments from external evaluator(s):** Non**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2015 – 2016**

Actions required

Completion date

Person responsible

Non

**Course coordinator:** Dr Abdelmagid A. Abdalla**Signature:****Date:** 28/7/2015

# Semester's Course Report

## Academic year: 2014-2015

### Semester: Summer

#### A- Basic Information

- 1- Title and code: (MNF 314) Thermodynamics  
 2- Program(s) on which this course is given: Manufacturing Eng. and Prod. Tech. BSc. Program  
 3- Year/Level of program: Third Level  
 4- Credit hours: 3 Lec.: 2 Tutorial: 1 Practical: 2 Pre-requisite: MTH 102  
 5- Names of lecturers contributing to the delivery of the course  
     Dr. Abdelmagid A. Abdalla  
     Course coordinator Dr. Abdelmagid A. Abdalla  
     External evaluator: None

#### B- Statistical Information

No. of students attending the course: No. 18

100%

No. of students completing the course: No. 18

100%

Results:

	No.	%
Passed	18	100
Failed	0	0

Grading of successful students:

	No.	%
Excellent	0	0
Very Good	0	0
Good	10	55.5
Pass	8	44.4

#### C- Professional Information

##### 1 – Course teaching

Topic	Taught hours	Lecturer
• Introduction: Importance of thermodynamics, some applications. Mechanisms of heat transfer.	8	Dr. Abdelmagid A. Abdalla
• Concepts and definitions: System, boundary, surroundings. Closed, open, and isolated systems. Kinetic, potential, and internal energy. State of a system, process, cycle, reversible, and irreversible processes, and work.	10	
• Properties of a pure substance: Definition, phase diagram of water (p-v), (T-v), Tables of steam. Equation of state, and compressibility factor, specific heats ( $C_p$ & $C_v$ ).	10	
• First law of thermodynamics: Statement of the first law for cycle & process. Different forms for a control mass & control volume. Special cases (SSSF, USUF). Enthalpy	11	
• Second law of thermodynamics: Heat engine and heat pump, Kelvin–Planck and Clausius statements. Reversibility and factors affecting it, Carnot cycle and its efficiency, Thermodynamic temperature scales.	11	
• Entropy: Definition, Clausius inequality, entropy of a pure substance, entropy change in a process, entropy relation, entropy generation and principle of increase of it, entropy change of a solid, liquid, and ideal gas. Second law for a control volume, for SSSF, and USUF processes,	10	
<b>Total hours</b>	<b>60</b>	

Topics taught as a percentage of the content specified:

>90 % ☐ 70-90 % ☒ 80 <70% ☐

Reasons in detail for not teaching any topic Shortage of time (Summer term is equivalent to 12 Weeks)

If any topics were taught which are not specified, give reasons in detail None

##### 2- Teaching and learning methods:

Lectures: Weekly Lecture

**Practical:** Weekly lab.

**Other assignments/homework:** weekly assignments

**If teaching and learning methods were used other than those specified, list and give reasons:** Non

**3- Student assessment:**

Method of assessment	Percentage of total
Written examination	60 %
Oral examination	----
Practical/laboratory work	20 %
Other assignments/class work	10 %
Mid-Term Exam	10 %
<b>Total</b>	<b>100 %</b>

**Members of examination committee**

Dr. Abdelmagid A. Abdalla

**Role of external evaluator**

None

**4- Facilities and teaching materials:**

Totally adequate

Yes

Adequate to some extent

Inadequate

List any inadequacies

**5- Administrative constraints**

List any difficulties encountered

**6- Student evaluation of the course:**

List any criticisms	Response of course team
➤ Students do not understand well from an engineer in the lab due to its low voice	➤ Dr. Abdalla talked to him to raise his voice during explaining the experiments.

**7- Comments from external evaluator(s):** Non

**8- Course enhancement:**

Progress on actions identified in the previous year's action plan: No previous comments

Action State whether or not completed and give reasons for any non-completion Non

**9- Action plan for academic year 2015 – 2016**

Actions required

Completion date

Person responsible

Non

**Course coordinator:**

Dr Abdelmagid A. Abdalla

**Signature:**

**Date:**

28/9/2015

# Annual Course Report

## Academic year 2014-2015

### Spring Semester

#### A- Basic Information

1- Course Code & Title: (ELC 317) Electrical Machines

2- Program(s) on which this course is given: Manufacturing Eng. & Prod. Tech. BSc Prog.

3- Year/Level of program: 3<sup>rd</sup> Year/Second Semester

4- Credit hours

Credit      3 hrs      Lectures      2 hrs      Tutorial      1 hrs      Practical      2 hr

5- Names of lecturers contributing to the delivery of the course: Prof. Dr. Said A. Gawish  
Dr. Haytham Gamal.

6- Course coordinator: Prof. Dr. Said A. Gawish

7- External evaluator: Non

#### B- Statistical Information

No. of students attending the course:

No. 

114	100 %
-----	-------

No. of students completing the course:

No. 

112	98.25%
-----	--------

Results:

	No.	%
Passed	97	86.6
Failed	15	13.4

Grading of successful students:		
Grade	No.	%
Excellent (A)	11	9.82
Very Good (B)	8	7.14
Good (C)	31	27.68
Pass (D)	47	41.96

#### B- Professional Information

##### 1 – Course teaching

Topic	Lecture hours	Tutorial hours	Practical hours	Lecturer
➤ Basic magnetic field laws.	2	1	-	Dr. Haytham Gamal.
➤ Magnetic material characteristics.	1	-	-	
➤ Magnetic circuit and transformer analysis.	3	2	4	
➤ DC machine construction and operation.	2	2	3	
➤ DC machine classification and applications	4	2	4	
➤ AC machine operation and equivalent circuit.	3	2	2	
➤ Speed control of AC motors.	2	-	3	
➤ Three phase motors operation and equivalent	3	2	2	
➤ Torque-speed characteristics of AC motors.	1	-	3	
➤ Synchronous machine operation and equivalent	2	2	4	
➤ Automobile alternators.	2	-	2	
➤ Single phase motors.	3	2	2	
➤ Stepper motor operation	2	-	1	
<b>Total hours</b>	<b>30</b>	<b>15</b>	<b>30</b>	

Topics taught as a percentage of the content specified:

>90 %

Reasons in detail for not teaching any topic: non

If any topics were taught which are not specified, give reasons in detail: Non

Achieved program intended learning outcomes, ILO's:

Knowledge & Understanding	Intellectual skills	Applied Skills	General transferable skills
a1,a14	b1,b6	c1,c6	d1 to d5

**2- Teaching and learning methods:**

Lectures: Lecture, discussions, tutorials and problem solving  
 Practical training/ laboratory: Practical Training and experimental measurements in Lab  
 Seminar/Workshop: Non  
 Class activity: Exercises; solution of problems and data show.  
 Other assignments/homework: Bi-weekly assignments and reports  
 If teaching and learning methods were used other than those specified, give reasons: Non

**3- Student assessment:**

Method of assessment	Points	%
Written examination	60	60
Oral examination	Non	0
Practical/laboratory work	20	20
Other assignments/class work	10	10
Mid-Term Exam	10	10
Total	100	100

**Members of examination committee:** Dr. Haytham Gamal.

**Role of external evaluator:** Non

**4- Facilities and teaching materials:**

Totally adequate	Yes
Adequate to some extent	
Inadequate	

List any inadequacies:

Non

**5- Administrative constraints** (List any difficulties encountered) None**6- Student evaluation of the course:**

	List any criticisms	Response of course team
(a)	There are few solved problem in the lecture.	The solved will be increased in the lectures.
(b)	Rate of the lecturer is fast than the rate of the assistance.	A better coordination with the assistant will be done to improve the integration between lecture and tutorial.

**7- Comments from external evaluator(s):** None**8- Written Exam Evaluation**

- The exam paper measures 79% of course ILO's measurable in written form and the variety of questions is practically balanced

**9- Course enhancement:**

Progress on actions identified in the previous year's action plan. State whether or not completed and give reasons for any non-completion:

It the first year for Credit Hours
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**9- Action plan for academic year 2015 – 2016**

Actions required	Completion date	Person responsible
Increase the solved problems in the lecture		Lecturer

**Course coordinator:** Prof. Dr. Said A. Gawish

**Signature:**

**Date:** September 2015