



جامعة المجمعة  
Majmaah University

# Course Report

**College:** Engineering  
**Programme:** Electrical Engineering  
**Course :** Measurements and Control Lab

Muharram 1437 H



This form compatible with NCAAA Edition

## Course Report

Institution :	Al Majmaah University	Date of CR	4/ 5 / 2017
College/ Department	Engineering/ Electrical Engineering		

### A Course Identification and General Information

1. Course title:	Measurements and Control Lab	Code:	EE 308	Section	81	
2. Name of course instructor	Dr. Alahmadi, Eng. Humran Khan	Location :	College of Engineering			
3. Year and semester to which this report applies:	2016/2017 2nd Semester					
4. Number of students starting the course?	10	Students completing the course?	10			
5. Course components:						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
<b>Contact Hours</b>	0	0	30	0	0	<b>30</b>
<b>Credit</b>	0	0	1	0	0	<b>1</b>

### B- Course Delivery :

#### 1. Coverage of Planned Program

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
Measurement of Pressure, Torque, Load, Strain, Displacement and Air Velocity	4	4	.....
Temperature Transducer	2	2	.....
Hall effect sensor	2	2	.....
Infrared transmitter and receiver	2	2	.....
Proximity sensors	2	2	.....
Force sensor	2	2	.....
Ultrasonic transmitter and receiver	2	2	.....
Temperature transducer	2	2	.....
Set point error detector and power amplifier	2	2	.....
PID and On/OFF	2	2	.....
Automatic light control	2	2	.....
Automatic temperature control	2	1	The semester was reduced by 3 weeks by the ministry of education
Pressure Control	2	1	The semester was reduced by 3



			weeks by the ministry of education
Flow Control/ Level Control	2	1	The semester was reduced by 3 weeks by the ministry of education.

( \* ) if there is a difference of more than 25% of the hours planned

## 2. Consequences of Non-Coverage of Topics

Topics not Fully Covered (if any)	Effectuated Learning Outcomes	Possible Compensating Action
None	.....	.....

## 3. Course learning outcome assessment.

List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
<b>Knowledge</b>			
.....		.....	.....
<b>Cognitive Skills</b>			
b	Conduct experiments to measure and analyze pressure by a pressure sensor		
	Conduct experiments to measure and analyze torque by torque sensor		
	Conduct experiments to measure and analyze mass by load sensor		
	Conduct experiments to measure and analyze temperature by temperature sensor	Standardized exams	83% [final exam Q5]
	Conduct experiments to measure and analyze force by strain sensor	Standardized exams	80% [Final exam Q3]
	Conduct experiments to measure and analyze level of fluid by level sensor		
	Conduct experiments to measure and analyze distance by displacement sensor		
	Conduct experiments to measure and analyze Air velocity by air velocity sensor		
c	Design a control of different systems like Pressure Control, Flow Control, Level Control and Temperature Control systems	Standardized exams	100% [final exam Q4]
<b>Interpersonal Skills &amp; Responsibility</b>			
.....		.....	.....
<b>Communication, Information Technology, Numerical</b>			
k	Use modern tools like simulation software and	Standardized	83%



List course learning outcomes	List methods of assessment for each LO	Summary analysis of assessment results for each LO
microprocessors for design and implementation of control of pressure control with tank and other accessories, flow control, level control and temperature control systems.	exams	[1st exam Q4]
<b>Psychomotor</b>		
.....	.....	.....

Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.

The assigned teaching strategies are more than enough.

#### 4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification

List Teaching Methods set out in Course Specification	Were They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
Giving Lectures		X	NO

## C. Results

### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A+	1	10%	.....
A	3	30 %	.....
B+	2	20 %	All the 10 students passed the course with normal distribution.
B	0	0 %	.....
C+	1	10 %	.....
C	2	20 %	.....
D+	0	0 %	.....
D	1	10 %	.....



<b>F</b>	0	0 %	.....
Denied Entry	0	9.09 %	
In Progress	0	0%	.....
Incomplete	0.	0 %	.....
Pass	10	90.9 %	
Fail	0	0 %	.....
Withdrawn	0	0 %	

## 2. Analyze special factors (if any) affecting the results

The results are within the normal distribution and pass percentage is good.

## 3. Variations from planned student assessment processes (if any) .

a. Variations (if any) from planned assessment schedule (see Course Specifications)

Variation	Reason
Midterm-2 was not conducted	The ministry of education reduced the semester by 3 weeks.

b. Variations (if any) from planned assessment processes in Domains of Learning

Variation	Reason
None	

## 4. Student Grade Achievement Verification :

Method(s) of Verification	Conclusion
All papers are reviewed by independent reviewer from the department who will who will double check the sum of the total marks	Level of fairness of collection is fairly high
Grades approved by Head of department and the dean of the EC.	Approved

## D. Resources and Facilities

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course
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None
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### E. Administrative Issues

Organizational or administrative difficulties encountered (if any)	Consequences of any difficulties experienced for student learning in the course
None	

### F Course Evaluation

#### 1 Student evaluation of the course (Attach summary of survey results)

a. List the most important recommendations for improvement and strengths <ul style="list-style-type: none"> <li>The course evaluation survey shows that the students are fairly agree with course delivery and contends</li> </ul>
b. Response of instructor or course team to this evaluation <ul style="list-style-type: none"> <li>The course instructor is glad that the students are agreed with course delivery</li> </ul>

#### 2. Other Evaluation :

a. List the most important recommendations for improvement and strengths <ul style="list-style-type: none"> <li>.....</li> </ul>
b. Response of instructor or course team to this evaluation: <ul style="list-style-type: none"> <li>.....</li> </ul>

### G Planning for Improvement

#### 1. Progress on actions proposed for improving the course in previous course reports (if any).

Actions recommended from the most recent course report(s)	Actions Taken	Action Results	Action Analysis
There is no recommendations from previous report	.....	.....	.....

#### 2. List what other actions have been taken to improve the course

<ul style="list-style-type: none"> <li>Asked the students to use the Lab manual and reference book</li> </ul>
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#### 3. Action Plan for Next Semester/Year

Actions Recommended for Further Improvement	Intended Action Points (should be measurable)	Start Date	Completion Date	Person Responsible



a) More student participation	Ask students to complete solving some theoretical problems to the end during the lab to relate the theory to practice	Beginning of first semester 2017/2018	End of first semester 2017/2018	Course Instructor
b) Review the course CLOs	The course CLOs will be updated by course instructor and reviewed by assigned committees	Beginning of first semester 2017/2018	End of first semester 2017/2018	Course Instructor

**Course Instructor:**

Name: Dr. Abdullah AlAhmadi & Eng. Muhammad Humran Khan  
 Signature: ..... Date Report Completed: 4/ 5 / 2017

**Program Coordinator:**

Name: Dr Abdullah Almuhasien  
 Signature: ..... Date Received : / / 2017



## **Important Notes:**

- A separate Course Report (CR) should be submitted for every course and for each ( section " Male & Female" or Academic Programme or campus location where the course is taught ) even if the course is taught by the same person
- Each CR is to be completed by the course instructor (Separate reports attached ) and given to the program coordinator At the end of each course
- Course Reports are to discuss by the academic ( Programme ) Department Council







هـ 1437 / 1438 في عماجلا ماعلا نيعم ررقم في سيردتلا تئيه وضع مبيقتل صفا الأول 38/37

مسقلا : تسدنهلما تيناير هكا

طاشنلا ررقملا ب : يلمع

تعييط 43357

ررقملا مقر :

ددع نيلجسما : 11

تلتسا تصاخ امبثد دل لاخر ررقملا

لاكلية : تسدنهلما معمجملا ب

ساقملا محرر : لمعم تاسايقلا اومكحتلا

مرملا زقرر : 308 رهك

سأتملا ذاققرر : ديزيدمحم مركا ممياسة

م	مبيقتلا دونب	لا قفاوا مطلقا (1)		لا اوافق (2)		قفاوا يلا دحام (3)		قفاوا بشدة (5)		ن	طسوتملا يياسحلا	تيسنلا %
		%	ددعلا	%	ددعلا	%	ددعلا	%	ددعلا			
1	ناك ررقملا ذيفنت عايشلاو ي تلا بلط ي نم امواداً تقيتم عم طوطخلا تيساسلا للمقرر .	0	0	2	25	1	12.5	2	25	8	3.75	75
1	ناك ررقملا ذيفنت عايشلاو ي تلا بلط ي نم امواداً تقيتم عم طوطخلا تيساسلا ررقملا .	50	1	0	0	1	50	0	0	2	2	40
2	ناك وضع تئيه سيردتلا امزتل لكشبر ررقملا عاطعابل ماكلثم) : ادب ددحملا تقولا ي تارضاحملا ، مناد لكشبر سيردتلا تئيه وضع دجاوت دادعلا سيردتلا ي ف تدهاسملا داوملا ديچلا ، وهكذا .	50	1	0	0	1	50	0	0	2	2	40
2	ناك وضع تئيه سيردتلا امزتل لكشبر ررقملا عاطعابل ماكل (مثل: ادب ددحملا تقولا ي تارضاحملا ، مناد لكشبر سيردتلا تئيه وضع دجاوت دادعلا سيردتلا ي ف تدهاسملا داوملا ديچلا ، وهكذا).	0	0	3	37.5	1	12.5	3	12.5	8	3.5	70
3	يدل وضع تئيه سيردتلا ي ذلا موقيد مبدقتبر ررقملا اذم ماملل ماک يوتحمب المقرر .	0	0	3	37.5	1	12.5	4	50	8	3.63	72.6
3	يدل وضع تئيه سيردتلا ي ذلا موقيد مبدقتبر ررقملا اذم ماملل ماک يوتحمب المقرر .	50	1	0	0	1	50	0	0	2	2	40
4	ناك وضع تئيه سيردتلا ادجوم تدهاسملا للاذ تاعاسملا المكتبية .	50	1	0	0	1	50	0	0	2	2	40
4	ناك وضع تئيه سيردتلا ادجوم تدهاسملا للاذ تاعاسملا المكتبية .	0	0	2	25	2	25	3	37.5	8	3.63	72.6
5	ناك وضع تئيه سيردتلا ماسمحت امل موقيد بتديسه .	50	1	0	0	1	50	0	0	2	2	40
5	ناك وضع تئيه سيردتلا ماسمحت امل موقيد بتديسه .	12.5	1	2	25	2	25	3	37.5	8	3.25	65
6	ناك وضع تئيه سيردتلا امتمهم يدبم ناكو ي مدقت انيعم لي .	12.5	1	1	12.5	2	25	3	37.5	8	3.5	70
6	ناك وضع تئيه سيردتلا امتمهم يدبم ناكو ي مدقتن انيعم لي .	50	1	0	0	0	0	1	50	2	2.5	50
7	انديمو ائيدد ررقملا ي ف مدقيد امل ل ناك ، (ةوررقملا صوصنلا ، تاصيختلا ، عجارملا ، امو شابيهها) .	50	1	0	0	1	50	0	0	2	2	40
7	انديمو ائيدد ررقملا ي ف مدقيد امل ل ناك ، (ةوررقملا صوصنلا ، تاصيختلا ، عجارملا ، امو شابيهها) .	12.5	1	1	12.5	2	25	3	37.5	8	3.5	70
8	تناكر داصملا ي تلا اهتجتحا ي ف ررقملا اذم قرفاوتم املك جاتحا اليها .	50	1	0	0	0	0	1	50	2	2.5	50
8	تناكر داصملا ي تلا اهتجتحا ي ف ررقملا اذم قرفاوتم املكتك جاتحا اليها .	12.5	1	1	12.5	3	37.5	2	25	8	3.25	65
9	ناك لكانه مادختسال اعف تقيقتلا معدل ي ميلعت ي ف هذا المقرر .	12.5	1	3	37.5	1	12.5	2	25	8	3	60
9	ناك لكانه مادختسال اعف تقيقتلا معدل ي ميلعت ي ف هذا المقرر .	50	1	0	0	0	0	1	50	2	2.5	50
10	تدجو اميجشت ماقلا تلتسلا ريوطتو تصاخلا يراكفا ي ف قما اذهر .	12.5	1	2	25	1	12.5	2	25	8	3.25	65
10	تدجو اميجشت ماقلا تلتسلا ريوطتو تصاخلا يراكفا ي ف هذا المقرر .	50	1	0	0	1	50	0	0	2	2	40







هـ 1438 / 1437 في عمجلا ماعلا نيعم ررقم في فس يردتلا تئيه وضع مبيقتل صفا الأول 38/37

مسقلا : تسدنهلا تينابرهكلا

طاشنلا ررقملا ب : يلمع

ةعبيط 43357

ررقملا مقر :

ددع نيلجسلا : 22

لاكلية : تسدنهلا تعمجلا ب

ساقملا هرر : لمعم تاساقلا مكنتلاو

مرملا زقررر : 308 رهك

سأتسلا ناقررر : ديزيدمحم مركا ممياسق

م	مبيقتلا دونب	لا قفاوا مطلقا (1)		لا اوافق (2)		قفاوا يلا دحام (3)		قفاوا بشدة (5)		ن	طسوتملا يياسحلا	تسينلا %
		%	ددعلا	%	ددعلا	%	ددعلا	%	ددعلا			
11	تبعثدي في يلمع ررقملا اذه مبيقتل ضفا ام عندي .	20	2	20	2	20	2	20	2	10	3	60
	عومجملا ريدقتلا : يضررم	20	2	20	2	20	2	20	2		3	60



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