



جامعة المجمعة  
Majmaah University

رؤية  
VISION  
2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

# COURSE REPORT (CR)

Ramadan 1438 H , June 2017

Institution:	Majmaah University
Academic Department:	Civil and Environmental Engineering
Programme	Civil Engineering
Course title and code:	Surveying 2 – CE 371
Report Approved Date=:	29/ 08 / 1439 H

*A separate Course Report (CR) should be submitted for every course and for each section 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 at the end of each course and given to the program coordinator  
A combined, comprehensive CR should be prepared by the course coordinator and the separate location reports are to be attached*

## Course Report

<b>Institution:</b> Majmaah University	<b>Date of CR:</b> 15/05/2018
<b>College/ Department:</b> Engineering / Civil and Environmental Engineering	

### A Course Identification and General Information

1. Course title: <i>Surveying 2</i>	Code # <i>CE 371</i>	Section # <i>590</i>
2. Name of course instructor: <i>Dr. Sameh S Ahmed</i>	Location: <i>Main camp</i>	
3. Year and semester to which this report applies: <i>Year 3/ Level 7</i>		
4. Number of students starting the course? <input style="width: 40px; text-align: center;" type="text" value="18"/>	Students completing the course? <input style="width: 40px; text-align: center;" type="text" value="17"/>	
5. Course components (actual total contact hours and credits per semester):		

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
<b>Contact Hours</b>	<b>Planned</b>	32	16		32		80
	<b>Actual</b>	30	15		30		75
<b>Credit</b>	<b>Planned</b>	2	0		1		3
	<b>Actual</b>	2	0		1		3

### B- Course Delivery



<b>1. Coverage of Planned Program</b>			
<b>Topics Covered</b>	<b>Planned Contact Hours</b>	<b>Actual Contact Hours</b>	<b>Reason for Variations if there is a difference of more than 25% of the hours planned</b>
Introduction of surveying instruments	5	5	..... .....
Angle measurements	10	10	..... .....
Distance measurements	10	10	..... .....
Traverses	5	5	..... .....
Midterm - 1	2.5	2.5	
Closed Traverses	5	5	..... .....
Intersection and resection	5	5	..... .....
Design of horizontal curves	10	10	..... .....
Design of vertical curves	5	3	Principles given but application not completed due time
Midterm - 2	2.5	2.5	..... .....
Digital Mapping	5	3	Due time introduced but not fully
Mini Project	10	10	
<b>Total</b>	<b>75</b>	<b>71</b>	

<b>2. Consequences of Non Coverage of Topics</b>		
For any topics where the topic was not taught or practically delivered, comment on how significant you believe the lack of coverage is for the course learning outcomes or for later courses in the program. Suggest possible compensating action.		
<b>Topics (if any) not Fully Covered</b>	<b>Effected Learning Outcomes</b>	<b>Possible Compensating Action</b>
Design of reversed curves	No much effect, 2.5%	Will be covered in CE 381
Digital Mapping	2.5%	Covered partially in CE 370 and 101



### 3. Course learning outcome assessment.

	List course learning outcomes	List methods of assessment for each LO	Summary analysis of assessment results for each LO
1	The students will be able to recognize the errors in measurements	<ul style="list-style-type: none"> <li>Regularly asking questions on different topics and concepts.</li> <li>Midterm and End-semester examinations that will force the student to think and apply the knowledge.</li> <li>Reports and discussions.</li> </ul>	Average = 2.76/3
2	The students will be able to measure horizontal and vertical angles and distances using theodolite and total station	<ul style="list-style-type: none"> <li>Asking the student to solve the problems on white board guiding him when required.</li> <li>Asking students to participate in oral discussion during the class.</li> <li>Assignment and mini project</li> <li>Questions in Quiz, Midterm and End exam</li> </ul>	Average = 2.76/3
3	The students will be able to calculate areas based on field measurements		Average = 2.53/3
4	The students will be able to interpret and explain contour and digital maps.		Average = 1.82/3
5	The students will be able to design elements of horizontal and vertical curves		Average = 2.47/3
6	The students will be able to demonstrate their teamwork and leadership skills through functioning in groups during field measurements and calculations		Group work in laboratory work and team activity. • Bonus marks to those who are improving and participating effectively in the class.

**Note:** In order to analyze the assessment of student achievement for each course learning outcome, student performance results can be measured and assessed using a KPI, a rubric, or some grading system that aligns student work, exam scores, or other demonstration of successful learning.

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

Enhance the following points in the teaching strategies of the course:

- Asking the student to solve the problems on white board guiding him when required.
- Setting assignment problems or mini project which will apply principles and concepts.
- Use of computer for solving some practical problems.

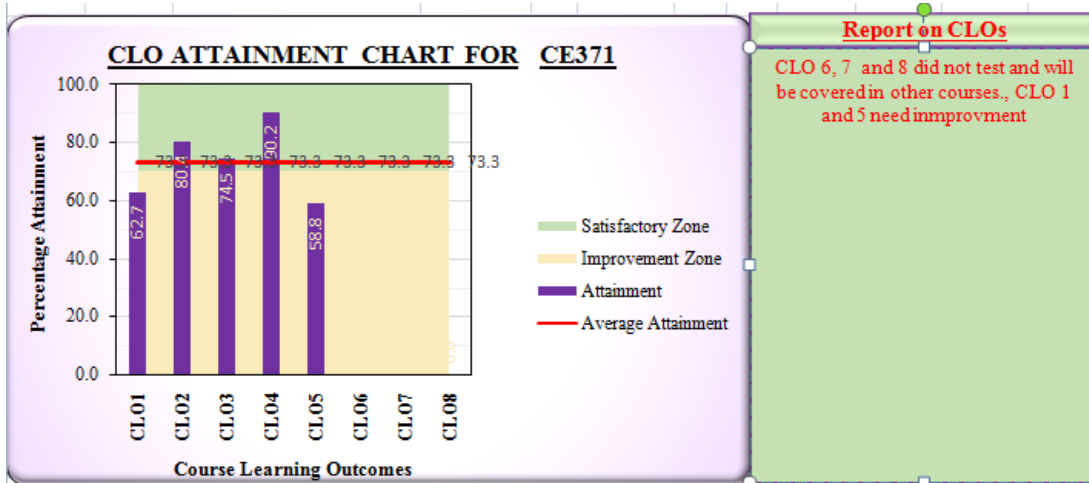
4. Effectiveness of used Teaching Strategies for Learning Outcomes set out in the Course Specification. (Refer to planned teaching strategies in Course Specification and description of Domains of Learning Outcomes in the National Qualifications Framework)



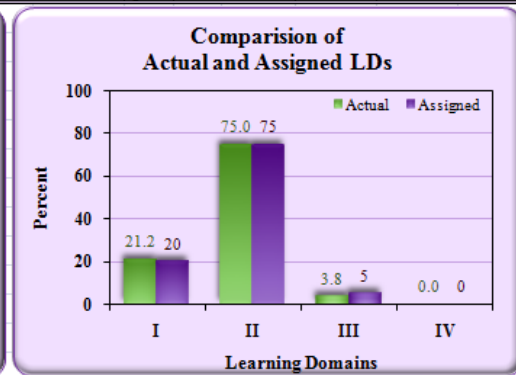
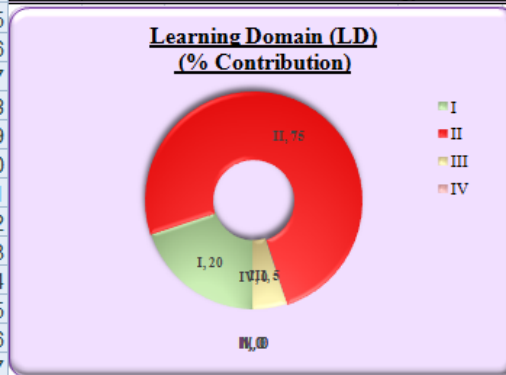
List Teaching Strategies set out in Course Specification	Were They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
<ul style="list-style-type: none"> <li>- Course delivery by citing real life examples and problems.</li> <li>- Emphasis on understanding concepts and illustrating applications to problems.</li> <li>- Conduct field measurements and creates maps for an urban area.</li> <li>- Revise some principles and rule in Algebra and integration.</li> <li>- Placing before the class mind-provoking and thinking questions.</li> </ul>		y	<ul style="list-style-type: none"> <li>- There is no sufficient time to do all the planned actions.</li> <li>- Labs should be opened for longer time so students can review and do more practice during the available time.</li> </ul>
<ul style="list-style-type: none"> <li>- Solving surveying problems through assignments on each topic.</li> <li>- Explaining principles and concepts through real life problems.</li> <li>- Asking the students to suggest a solution before giving them the correct answer.</li> <li>- Asking the students to explain the steps adopted in the problem and ensures that they understand the problem.</li> <li>- Asking searching questions on topic fundamentals.</li> <li>- Setting M-1 and M-2 + quizzes and mini projects so that students can apply the knowledge gained.</li> </ul>		y	There is a need to ensure that the students are doing their assignments by themselves and they do not copy form each other.
<ul style="list-style-type: none"> <li>- Different access to the student to be close with the teacher using, email, website and even phone calls in urgent.</li> <li>- Asking the students to express his opinion on a particular topic.</li> <li>- Divided the students into small groups during the lab sessions and re-arranging the groups.</li> </ul>		y	
<ul style="list-style-type: none"> <li>- Make the class attractive and full of activations by raising questions and discussions that requires straight thinking and also reverse thinking.</li> <li>- Questioning the students on solving the problem in a reverse manner.</li> </ul>		y	.....



## C. Results

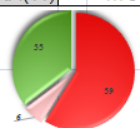
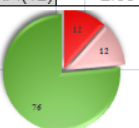

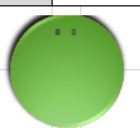
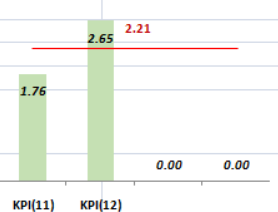
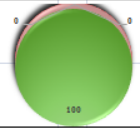
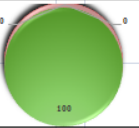



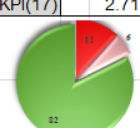
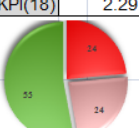
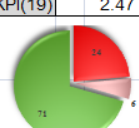
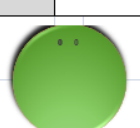
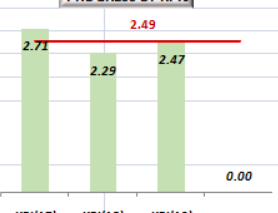
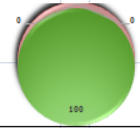



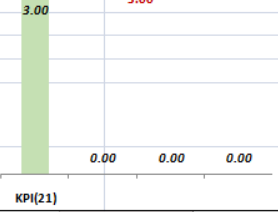
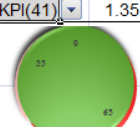
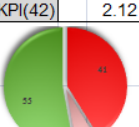
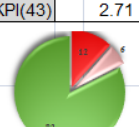
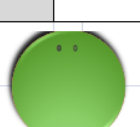
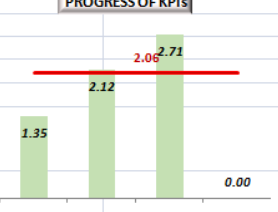


LD	LD Description	Marks		
		Assigned (%)	Actual	Actual (%)
I	Knowledge	a,j,k	20	21.2
II	Cognitive Skills	b,c,e	75	75.0
III	Interpersonal and Responsibility Skills	d,f	5	3.8
IV	Communication, Information Technology and Numerical Skills	g,h,i	0	0.0

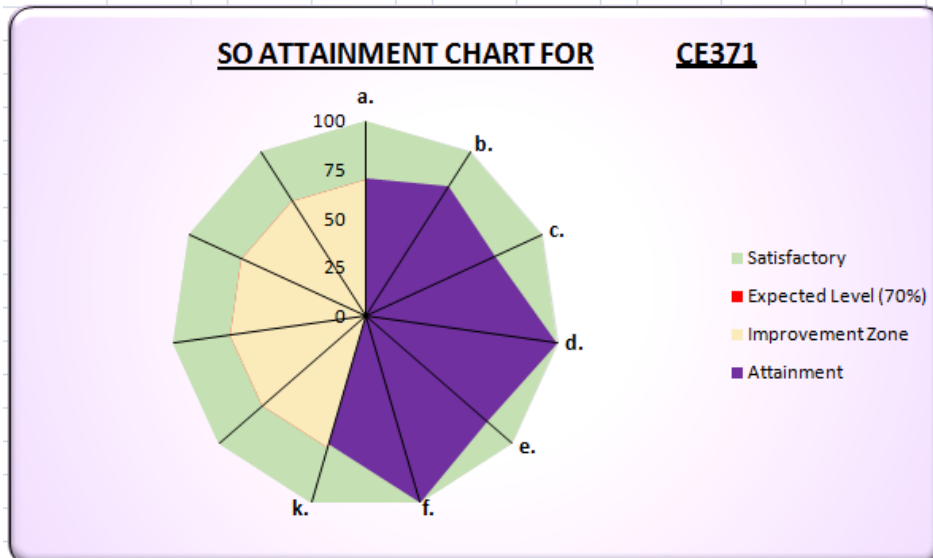


Course	CE371		Surveying-2		Instructor: Dr. Sameh S Ahmed		
Domain	SO		Section: 590				
a.	An ability to apply knowledge of mathematics, science, and engineering	Students	17	Students	17	Students	17
		Unsatisfactory (%)	12	Unsatisfactory (%)	35	Unsatisfactory (%)	71
		Average (%)	0	Average (%)	0	Average (%)	12
		Satisfactory (%)	88	Satisfactory (%)	65	Satisfactory (%)	12
		KPI(1)	2.76	KPI(2)	2.29	KPI(4)	1.29
b.	An ability to design and conduct experiments, as well as to analyze and interpret data	Students	17	Students	17	Students	17
		Unsatisfactory (%)	12	Unsatisfactory (%)	6	Unsatisfactory (%)	53
		Average (%)	0	Average (%)	35	Average (%)	12
		Satisfactory (%)	88	Satisfactory (%)	59	Satisfactory (%)	35
		KPI(5)	2.76	KPI(6)	2.53	KPI(8)	1.82

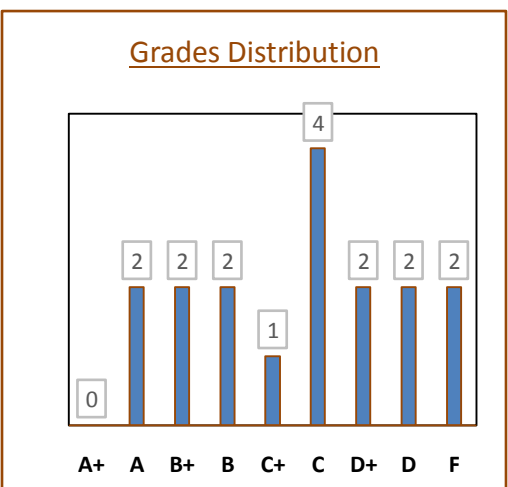


c.	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>59</td></tr> <tr><td>Kepercayaan (%)</td><td>6</td></tr> <tr><td>Selalu benar (%)</td><td>35</td></tr> <tr><td>KPI(11)</td><td>1.76</td></tr> </table> 	Students	17	Keaktifan (%)	59	Kepercayaan (%)	6	Selalu benar (%)	35	KPI(11)	1.76	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>12</td></tr> <tr><td>Kepercayaan (%)</td><td>12</td></tr> <tr><td>Selalu benar (%)</td><td>76</td></tr> <tr><td>KPI(12)</td><td>2.65</td></tr> </table> 	Students	17	Keaktifan (%)	12	Kepercayaan (%)	12	Selalu benar (%)	76	KPI(12)	2.65	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(13)</td><td>3.00</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(13)	3.00	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(15)</td><td>3.00</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(15)	3.00	<p>Weighted Average</p> <p>2.21 (73.5%)</p>	<p>PROGRESS OF KPIS</p> 
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KPI(15)	3.00																																														
d.	An ability to function on multidisciplinary teams	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(17)</td><td>2.71</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(17)	2.71	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>24</td></tr> <tr><td>Kepercayaan (%)</td><td>24</td></tr> <tr><td>Selalu benar (%)</td><td>53</td></tr> <tr><td>KPI(18)</td><td>2.29</td></tr> </table> 	Students	17	Keaktifan (%)	24	Kepercayaan (%)	24	Selalu benar (%)	53	KPI(18)	2.29	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>24</td></tr> <tr><td>Kepercayaan (%)</td><td>6</td></tr> <tr><td>Selalu benar (%)</td><td>71</td></tr> <tr><td>KPI(19)</td><td>2.47</td></tr> </table> 	Students	17	Keaktifan (%)	24	Kepercayaan (%)	6	Selalu benar (%)	71	KPI(19)	2.47	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(21)</td><td>3.00</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(21)	3.00	<p>Weighted Average</p> <p>2.49 (83%)</p>	<p>PROGRESS OF KPIS</p> 
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e.	Ability to identify, formulate, and solve engineering problems	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(41)</td><td>1.35</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(41)	1.35	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>41</td></tr> <tr><td>Kepercayaan (%)</td><td>6</td></tr> <tr><td>Selalu benar (%)</td><td>53</td></tr> <tr><td>KPI(42)</td><td>2.12</td></tr> </table> 	Students	17	Keaktifan (%)	41	Kepercayaan (%)	6	Selalu benar (%)	53	KPI(42)	2.12	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>12</td></tr> <tr><td>Kepercayaan (%)</td><td>6</td></tr> <tr><td>Selalu benar (%)</td><td>82</td></tr> <tr><td>KPI(43)</td><td>2.71</td></tr> </table> 	Students	17	Keaktifan (%)	12	Kepercayaan (%)	6	Selalu benar (%)	82	KPI(43)	2.71	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(43)</td><td>2.71</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(43)	2.71	<p>Weighted Average</p> <p>3.00 (100%)</p>	<p>PROGRESS OF KPIS</p> 
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f.	An understanding of professional and ethical responsibility	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>65</td></tr> <tr><td>Kepercayaan (%)</td><td>35</td></tr> <tr><td>Selalu benar (%)</td><td>0</td></tr> <tr><td>KPI(41)</td><td>1.35</td></tr> </table> 	Students	17	Keaktifan (%)	65	Kepercayaan (%)	35	Selalu benar (%)	0	KPI(41)	1.35	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(21)</td><td>3.00</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(21)	3.00	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(21)</td><td>3.00</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(21)	3.00	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(21)</td><td>3.00</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(21)	3.00	<p>Weighted Average</p> <p>3.00 (100%)</p>	<p>PROGRESS OF KPIS</p> 
Students	17																																														
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k.	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>65</td></tr> <tr><td>Kepercayaan (%)</td><td>35</td></tr> <tr><td>Selalu benar (%)</td><td>0</td></tr> <tr><td>KPI(41)</td><td>1.35</td></tr> </table> 	Students	17	Keaktifan (%)	65	Kepercayaan (%)	35	Selalu benar (%)	0	KPI(41)	1.35	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>41</td></tr> <tr><td>Kepercayaan (%)</td><td>6</td></tr> <tr><td>Selalu benar (%)</td><td>53</td></tr> <tr><td>KPI(42)</td><td>2.12</td></tr> </table> 	Students	17	Keaktifan (%)	41	Kepercayaan (%)	6	Selalu benar (%)	53	KPI(42)	2.12	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>12</td></tr> <tr><td>Kepercayaan (%)</td><td>6</td></tr> <tr><td>Selalu benar (%)</td><td>82</td></tr> <tr><td>KPI(43)</td><td>2.71</td></tr> </table> 	Students	17	Keaktifan (%)	12	Kepercayaan (%)	6	Selalu benar (%)	82	KPI(43)	2.71	<table border="1"> <tr><td>Students</td><td>17</td></tr> <tr><td>Keaktifan (%)</td><td>0</td></tr> <tr><td>Kepercayaan (%)</td><td>0</td></tr> <tr><td>Selalu benar (%)</td><td>100</td></tr> <tr><td>KPI(43)</td><td>2.71</td></tr> </table> 	Students	17	Keaktifan (%)	0	Kepercayaan (%)	0	Selalu benar (%)	100	KPI(43)	2.71	<p>Weighted Average</p> <p>2.06 (68.6%)</p>	<p>PROGRESS OF KPIS</p> 
Students	17																																														
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### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A <sup>+</sup>	0	0 %	<p style="text-align: center;"><u>Grades Distribution</u></p> 
A	2	11.7 %	
B <sup>+</sup>	2	11.7 %	
B	2	11.7 %	
C <sup>+</sup>	1	5.9 %	
C	4	23.5 %	
D <sup>+</sup>	2	11.7 %	
D	2	11.7 %	
F	2	11.8. %	
DeniedEntry	0	0 %	
In Progress	17	100 %	
Incomplete	0	0 %	
Pass	15	88.2 %	
Fail	2	11.7 %	
Withdrawn	1	5.9 %	

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

- No outstanding student in this group
- Fair number of students got A, B and B (4 students)
- Normal result for C and C+
- 2 students failed to pass; two of them did not attend regularly the class and the lab sessions.

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

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





Variation	Reason
High number of students got "C"	Attendance of some students and their weakness in Math
No outstanding students, but only 2 with A grade	Those students attended regularly and have good knowledge in Math

**4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator).**

Method(s) of Verification	Conclusion
All final papers are revised and checked by other faculty member.	Level of fairness in correction is fairly high.
Overall results are discussed with the head of department and vice Dean.	Result fair across the C-S of students and earlier results.

**D Resources and Facilities**

1. Difficulties in access to resources or facilities (if any)  Limited number of Total station instruments	2. Consequences of any difficulties experienced for student learning in the course, and proposed action to overcome it.  <ul style="list-style-type: none"> <li>Most students do not read sufficient texts and reference books.</li> <li>Getting 2 more Total Stations for the department.</li> </ul>
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**E. Administrative Issues**

1. Organizational or administrative difficulties encountered (if any)  A few number of student join the track	2. Consequences of any difficulties experienced for student learning in the course, and proposed action to overcome it.  Difficulties in senior design project as it requires minimum of 4 students
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**F Course Evaluation**

1. Student evaluation of the course (Attach summary of survey results)
a. List the most important recommendations for improvement and strengths Explain the basics of Math needed for calculations before go deeply in the topic.
b. Response of instructor or course team to this evaluation Satisfy
2. Other Evaluation (eg. by head of department, peer observations, accreditation review, other stakeholders)
a. List the most important recommendations for improvement and strengths Give more practical sessions during lab work.
b. Response of instructor or course team to this evaluation Results reveal improve in the marks of the final practical exam.



## 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
a) More time for exercises in using field measurements to solve real problems	Done	Improvement in student skills for using instruments	Instead of 6 practical exercises, they did 7 this semester
b) Ask students to complete solving some problems to the end during the class using calculators and Computer during lab session.	Done	Overall results remains almost constant	Students revealed faster ability in calculations using calculators and no complain w.r.t. exam time

### 2. List what other actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).

- Force the students to use reference books.
- Insist to submit the homework on time.
- All exercises must be solved.

### 3. Action Plan for Next Semester/Year

Actions Recommended for Further Improvement	Intended Action Points (should be measurable)	Person Responsible
a) More exercises	More time for exercises in using field measurements to solve real problems	Instructor
b) Student participation	Ask students to complete solving some problems to the end during the class using calculators and Computer during lab session.	Instructor
c) Motivation	Encourage the students to anticipate questions on each topic	Instructor
d) Field work	Allow the students to participate in senior surveying project to get more experience.	Instructor



Name of Course Instructor: **Dr. Sameh S Ahmed**

Signature : *Sameh*

Date Report Completed: 14/05/2018

Program Coordinator: **Dr. Abdullah AlShehri**

Signature: *AlShehri*

Date Received: Meeting # 27 on 15/05/2018

