



جامعة المجمعة  
Majmaah University

# Course Report

**College:** Engineering  
**Programme:** Civil Engineering (2016-17-S)  
**Course :** Photogrammetry

Muharram 1437 H



This form compatible with NCAAA Edition

## Course Report

Institution :	Majmaah University	Date of CR	20 / 05 / 2017.
College/ Department	Engineering / Civil and Environmental Engineering		

### A Course Identification and General Information

1. Course title:	<b>Photogrammetry</b>	Code	<b>CE 474</b>	Section	513	
2. Name of course instructor	<b>Dr. Sameh S. Ahmed</b>	Location :	<b>Majmaah</b>			
3. Year and semester to which this report applies:	<b>2016-17 – Second Semester</b>					
4. Number of students starting the course?	<b>8</b>	Students completing the course?	<b>8</b>			
5. Course components:						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	<b>Total</b>
<b>Contact Hours</b>	<b>45</b>	<b>15</b>	-			<b>60</b>
<b>Credit</b>	<b>3</b>	<b>0</b>	-			<b>3</b>

### B- Course Delivery:

#### 1. Coverage of Planned Program

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
History of photogrammetry	4	4	.....
Aerial cameras and Camera calibration	8	8	.....
Geometry of the aerial photograph: Principles points - Ground points - Control points - Central Projection - Interior and Exterior Orientation - Image Capture Practicalities	8	8	.....
Stereoscopy and stereoscopes	4	4	.....
Parallax theory and techniques of plotter orientation	4	4	
Midterm 1	4	4	.....
Extraction of engineering information from single aerial photo	4	4	.....
Extraction of engineering information from two aerial photos	8	8	.....
Least squares, preparation and measuring of coordinates from aerial	4	2	Principles given but application not completed due time



photos			
Planning a photogrammetric project	4	4	.....
Midterm-II	-	-	Due time introduced but not fully
Project #2, Cont.	4	4	
Applications using computer software's	8	8	
<b>Total</b>	<b>60</b>	<b>58</b>	

(\*) 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
Least squares	No much effect, 2.5%	Will be covered Remote Sensing

## 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>1.0</b>	<b>Knowledge</b>		
1.1	The students will be able to know the history of developing the subject of photogrammetric surveying.	<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 = 2.54/3
1.2	The students will be able to write about different cameras used in photogrammetric surveying		
1.3	The students will be able to tell types of aerial photos		
1.4	The students will be able to recognize the use of photogrammetric surveying.		
1.5	The students will be able to describe digital mapping process.		
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1	The students will be able to calculate, design and measure distances and areas from aerial photographs	<ul style="list-style-type: none"> <li>Asking the student to solve the problems on white board guiding him when required.</li> <li>Asking</li> </ul>	Average = 2.25/3
2.2	The students will be able to estimate and calculate the height of objects from aerial photographs		Average = 2.75/3
2.3	The students will be able to prepare the stereoscopes vision for a pair of photographs and conduct necessary measurements		Average = 3/3



List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
2.4	The students will be able to Explain Parallax theory and techniques of plotter orientation	students to participate in oral discussion during the class. • Assignment and mini project • Questions in Quiz, Midterm and End exam.	Average = 2.5/3
2.5	The students will be able to extraction of engineering information from single and two aerial photo and analyse the data		Average = 2.63/3
2.6	The students will be able to plan a photogrammetric project and to calculate number of required photos and films for the task		Average = 2.38/3
<b>3.0 Interpersonal Skills &amp; Responsibility</b>			
3.1	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.	Average = 2.88/3
<b>4.0 Communication, Information Technology, Numerical</b>			
4.1	N/A		
<b>5.0 Psychomotor</b>			
5.1	N/A		

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 via ARC/GIS software.



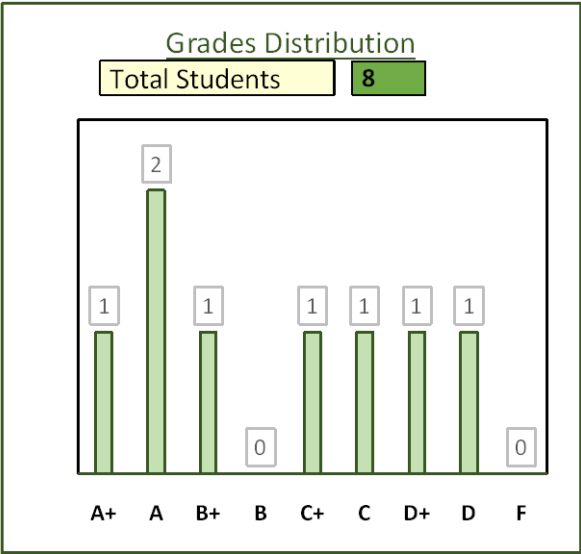
#### 4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification

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	
<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	- There is no sufficient time to do all the planned actions.
<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

### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A+	1	12.5 %	 <p>Grades Distribution Total Students: 8</p>
A	2	25 %	
B+	1	12.5 %	
B	0	0 %	
C+	1	12.5 %	
C	1	12.5 %	
D+	1	12.5 %	
D	1	12.5 %	
F	0	0. %	
Denied Entry	0	0 %	
In Progress	8	100 %	8 student attended the final exam
Incomplete	0	0 %	
Pass	8	100 %	
Fail	0	0 %	
Withdrawn	0	0 %	

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

- One outstanding student in this group got A+
- 3 students got A and B+ (37.5% of the students)
- Normal result for C and C+

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

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





Variation	Reason
Half of the students are very good	Students attending class regularly

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

Variation	Reason
One outstanding student, and 3 with A or B+ grade	Those students attended regularly and have good knowledge in Math

#### 4. Student Grade Achievement Verification:

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.	Results were high and good due to less number and students selected this track on their desire

#### D. Resources and Facilities

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course
There are no aerial photographs available in the surveying lab yet.	<ul style="list-style-type: none"> <li>Most students do not read sufficient texts and reference books.</li> <li>Getting 2 pocket stereoscopic instruments</li> </ul>

#### E. Administrative Issues

Organizational or administrative difficulties encountered (if any)	Consequences of any difficulties experienced for student learning in the course
No problem in this course	-

#### 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>Explain the basics of Math needed for calculations before go deeply in the topic.</li> </ul>
b. Response of instructor or course team to this evaluation <ul style="list-style-type: none"> <li>Satisfy.</li> </ul>





## 2. Other Evaluation:

- |  |
|--|
| a. List the most important recommendations for improvement and strengths <ul style="list-style-type: none"> <li>• Give more practical sessions for stereoscopic exercises</li> </ul> |
| b. Response of instructor or course team to this evaluation : <ul style="list-style-type: none"> <li>• High marks of the final exam.</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
a) More time for exercises in using field measurements to solve real problems	Done	Improvement in student skills for calculations and awareness of errors	Instead of 4 practical exercises, they did 6 this semester
b) Ask students to complete solving some problems to the end during the class using calculators and Computer during exercise 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

- |   |
|---|
| <ul style="list-style-type: none"> <li>• Force the students to use reference books.</li> <li>• Insist to submit the homework on time.</li> <li>• All exercises must be solved.</li> </ul> |
|---|

### 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 exercises	More time for exercises in using photographs measurement to solve real problems	24/09/2017	One week before the final exam	Instructor





b) Student participation	Ask students to complete solving some problems to the end during the class using calculators and Computer during exercise session.	24/09/2017	One week before the final exam	Instructor
c) Motivation	Encourage the students to anticipate questions on each topic	24/09/2017	One week before the final exam	Instructor
d) Field work	Allow the students to participate in senior surveying project to get more experience.	November 2017	December 2017	Instructor

**Course Instructor:**

Name: Dr. Sameh S Ahmed  
 Signature: *Sameh* Date Report Completed: 20/05/2017

**Program Coordinator:**

Name: Dr. Abdullah AlShehri  
 Signature: *AlShehri* Date Received : 21/5/2017

