



**BENHA UNIVERSITY**



**FACULTY OF ENGINEERING AT SHOUBRA**

## **Model No.12**

### **Course Specifications (2014-2015)**

### **Civil & Survey Engineering**

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**University:** Benha University

**Faculty:** Faculty of Engineering at Shoubra

**Department offering the program:** Mechanical Engineering Department

**Department offering the course:** Civil Engineering Department

#### **1- Course Data**

**Course Code:** SUR191    **Course Title:** Civil & Survey Engineering    **Study Year:** First year

**Course Title:** Civil & Survey Engineering    **Course Type:** Compulsory

**Specialization:** Design and Production Engineering

**Teaching Hours:**    Lecture: 2    Tutorial / Practical: 2    total:4

#### **2- Course Aim**

For students undertaking this course, the aims are to:

1. Know kinds of building and compass surveying.
2. Understand of basic principles of survey engineering and area computations.

#### **3- Intended Learning Outcomes of Course (ILO'S)**

##### **a- Knowledge and Understanding skills**

On completing this course, students will be able to demonstrate the knowledge and understanding of:

- a.1 Concepts and theories of foundation and Civil & Survey Engineering (A1).
- a.2 Solve problems of scales and leveling (A5).

##### **b- Intellectual Skills**

At the end of this course, the students will be able to:

- b.1 Select suitable solutions for engineering problems based on analytical thinking (B2).
- b.2 Solving and design foundation problems (B2).
- b.3 Analyze and interpret data, and design experiments to obtain primary data for compass surveying (B14).

##### **c- Professional Skills**

On completing this course, the students are expected to be able to:

- c.1 Apply basic knowledge of mathematics and IT to solve surveying problems (C1).
- c.2 Apply numerical modeling methods to make area computations (C7).
- c.3 Prepare and present technical reports for kinds of building and leveling reading (C12).



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#### **d- General Skills**

At the end of this course, the students will be able to:

- d.1 Work in stressful environment and within constraints (D1).
- d.2 Communicate with team to solve surveying problems (D2).
- d.3 Search for information and engage in life-long self-learning Civil & Survey Engineering (D3).

#### **4- Course Contents**

<b>Week no</b>	<b>Topics</b>
1	Introduction to Survey Engineering
2	Kind of buildings
3	Walls
4	Roofs
5	Foundation-1
6	Foundation-1
7	Scales
8	<b>Midterm exam</b>
9	Compass surveying
10	Chain Surveying
11	Area Computations
12	Leveling
13	Cross Sections-1
14	Cross Sections-2
15	<b>Final exam</b>

#### **5- Teaching and Learning Methods**

- 5.1- Lectures
- 5.2- Class activity
- 5.3- Assignments / homework

#### **6- Teaching and Learning Methods of Disables**

- 6.1- Practical Training/Laboratory
- 6.2- seminar /work shop
- 6.3- Class Activity.

#### **7- Student Assessment**

##### **a- Student Assessment Methods**

1. Four assignments to assess knowledge and intellectual skills.
2. Two Quizzes to assess knowledge, intellectual and professional skills.
3. Mid-term exam to assess knowledge, intellectual, professional and general skills.
4. Oral exam to assess knowledge and intellectual skills.
5. Final exam to assess knowledge, intellectual, professional and general skills.



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### b- Assessment Schedule

No.	Assessment	Week
1	Assignments	2,4,6,9
2	Quizzes	4,10
3	Mid-term exam	8
4	Oral exam	14
5	Final exam	15

### c. Weighting of Assessments

Assessment	Weight
Midterm Examination	10 %
Final Term Examination	60 %
Oral Examination	20 %
Practical Examination	0 %
Semester work	5 %
Other types of assessment	5 %
Total	100 %

## 8- List of References

### a- Course Notes

1- Course notes prepared by instructor

### b- Books

- Surveying theory and practice, James m. Anderson, Edward M Mikhail

**Course Coordinator:** Dr. / Sayed Heshmat

**Head of Department:** Prof. Dr./ Osama Ezzat Abdullatif



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FACULTY OF ENGINEERING AT SHOUBRA

### Model No.11A

### Course Specifications: Civil & Survey Engineering

**University:** Benha University

**Faculty:** Faculty of Engineering at Shoubra

**Department offering the program:** Mechanical Engineering Department

**Department offering the course:** Surveying Engineering Department

#### Matrix of Knowledge and Skills of the Course

no.	Topics	Week no.	Knowledge and Understanding Skills	Intellectual Skills	Practical and Professional Skills	General and Transferable Skills
1	Introduction to Survey Engineering	1	a1		c1	
2	Kind of buildings	2	a1	b1		d1
3	Walls	3			c1	
4	Roofs	4		b2	c2	d2
5	Foundation-1	5	a2			d1
6	Foundation-1	6		b1	c3	
7	Scales	7		b3		d2
8	<b>Midterm Exam</b>	8	a2		c1	d2
9	Compass surveying	9		b2		d1
10	Chain Surveying	10			c2	
11	Area Computations	11	a1	b3		d3
12	Leveling	12		b1	c1	d2
13	Cross Sections-1	13		b2	c2	
14	Cross Sections-2	14	a1		c3	d2
15	<b>Final exam</b>	15	a2	b2	c3	d1

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### **Matrix of course aims and ILO's**

**Course Title:** Civil & Survey Engineering

**Course Code:** SUR191

**Teaching Hours:** Lecture: 2 Tutorial / Practical: 2 Total: 4

**Major or minor element of program:** Major.

**Program on which the course is given:** B.Sc. Mech. Design and Prod. Eng.

**Department offering the program:** Mechanical Engineering Department

**Department offering the course:** Surveying Eng. Dept.

**Academic year/level:** 2014-2015 First Year / first semester

**Date of specifications approval:** 2014

<b>Course aims</b>	<b>Basic Knowledge</b>	<b>Intellectual Skills</b>	<b>Professional Skills</b>	<b>General Skills</b>
1. Know kinds of building and compass surveying.		b1, b3		d1, d3
2. Understand of basic principles of survey engineering and area computations.	a1	b2	c2	d1, d2

**Course Coordinator:** Dr. / Sayed Heshmat

**Head of Department:** Prof. Dr./ Osama Ezzat Abdullatif