

<u>4/16/2015</u>	DATE	<u>Technology</u>	DIVISION
<u>X</u>	REQUIRED COURSE		NEW COURSE
	ELECTIVE COURSE	<u>X</u>	REVISION

# LAKE LAND COLLEGE

## Course Information Form

**COURSE NUMBER**    **CET062**    **TITLE**    **Surveying II**

<b>SEM CR HRS</b>	<b>3</b>	<b>LT HRS</b>	<b>1.5</b>	<b>LAB HRS</b>	<b>3</b>	<b>SOE HRS</b>	<b>ECH</b>
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**COURSE PCS#** (Assigned by Administration)

**Prerequisites:** CET060, TEC052

**Catalog Description** (40 Word Limit): Designed to apply the skills learned in Surveying I to practical problems such as closed traverse, area calculations, land surveying, topographic mapping, stadia surveys, and difficult level circuits.

List the Major Course Segments (Units)	Lt Hrs	Lab Hrs
Traverse Closure	2	2
Measure Traverse	1.5	14
Area Calculations	3	5
Level Circuits	2	5
Topographic Surveys	4	8
Contour Maps	3	4
Land Surveying	7	7

<b>EVALUATION:</b>	Quizzes		Exams	X	Oral Pres		Papers	
	Lab Work	X	Projects	X	Comp Final	X	Other	

Textbook: Title: Elementary Surveying

**Author:** Paul R. Wolf, Charles D. Ghilani

**Publisher: Prentice-Hall, Inc.**

**Volume/Edition: 14<sup>th</sup> Edition**

**Copyright Date: 2014**

<b>Major Course Segment</b>	<b>Hours</b>	<b>Learning Outcomes Students should be able to:</b>
Differential Leveling and Accompanying Field Procedures and Note Keeping	6	Understand auto level equipment and proper field procedure.
Adjust Level Circuit	3	Understand proportioning technique in level adjustment.
Weighted Difference Adjustment	3	Compute most probable elevation using weighted difference technique.
Bearing and Azimuth Calculations	4	Compute bearings and azimuths from interior angles.
Introduce Electronic Surveying (Total Station)	6	Understand Total Station tribrach, and prism set-up and usage.
Measure Closed Traverse	7	Understand measurement of angles and distances electronically.
DMD Method	5	Compute latitudes, departures, error of closure, DMD, and area.
Topographic Surveying	3	Understand types of topo-surveys and terminology.
Methods of Topo-surveying	3	Understand various methods of field data collection.
Property Surveying	3	Understand basic purposes of land surveying.
Research Techniques	2	Understand deed research, monuments, plats, etc.
4 Methods of Property Description	2	Understand and be able to write accurate legal descriptions.
Public Lands System	3	Understand the public lands system of property description.
Field Survey and Section Corner Tie-in to Closed Traverse	4	Understand field techniques and author a complete legal description.

<b>Course Outcomes:</b> At the successful completion of this course, students will be able to:
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| <ul style="list-style-type: none"><li>• Demonstrate documentation of various survey projects</li></ul>              |
| <ul style="list-style-type: none"><li>• Calculate the area (acres) on a property survey</li></ul>                   |
| <ul style="list-style-type: none"><li>• Write a legal land description of property</li></ul>                        |
| <ul style="list-style-type: none"><li>• Use total station and auto-level in an accurate and timely manner</li></ul> |

<b>Learning Outcome Method :</b>
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| 1. 70% of the class will score an 80% or higher on a field projects involving proper measuring practices. This will involve a composite score of three field projects. |
| 2. 70% of the class will score an 80% or higher on an embedded question on a test.   |
| 3. 70% of the class will score an 80% or higher on a field project involving writing a legal land description.   |
| 4. 70% of the class will score 80% or higher on a field test involving setting up a total station and auto-level and taking readings in a timely manner.               |