



LESSON PLAN

COURSE TITLE: <b>Surveying-II</b>	COURSE CODE: <b>CE202</b>	CREDIT HOURS: <b>03</b>	MINIMUM CONTACT HOURS: <b>48</b>
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COURSE INSTRUCTOR: **Engr. Azizullah Jamali (C+D)/Engr. Maroosha Larik (A+B)**

Batch: **21CE** Semester: **4th** Semester Starting Date: **03-07-2023** Semester Suspension Date: **20-10-2023**

**COURSE LEARNING OUTCOMES:**

CLO	Description	Taxonomy level	PLO
1	APPLY different survey techniques for indirect linear measurements in horizontal and vertical plane, and measurements in water bodies and larger areas.	C3	2
2	USE data for setting out of curves on highways and setting out works for different structures.	C3	3

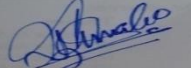


**LESSON CONTENTS AND ASSOCIATED CLO(s)**

Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
<ul style="list-style-type: none"> <li>• <b>Theodolite Traversing</b> <ul style="list-style-type: none"> <li>- Adjustment of transit theodolite</li> <li>- traversing with theodolite</li> <li>- Traverse computations, Closing error and its adjustment</li> <li>- Computation of Omitted measurements.</li> </ul> </li> <li>• <b>Tachometric Surveying</b> <ul style="list-style-type: none"> <li>- System of tachometry</li> <li>- Principles and field procedures of tachometry</li> <li>- Use of tachometry for traversing.</li> <li>-</li> </ul> </li> </ul> <p><b>Serial No. of lectures: 1-15 (Total Classes: 15)</b></p>	<b>1</b>	<b>30</b>	<ul style="list-style-type: none"> <li>• Class Lecture</li> <li>• Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Class Test -I (05)</li> <li>• Assignment -I (05)</li> <li>• Mid semester Exam (20)</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Highway Curves</b> <ul style="list-style-type: none"> <li>- Introduction and Types of curves</li> <li>- Simple circular curves</li> <li>- Compound curves</li> <li>- Reverse curves</li> <li>- Transition curves</li> <li>- Vertical curves</li> <li>- Computation and setting out of curves by different methods.</li> </ul> </li> <li>• <b>Setting out works</b> <ul style="list-style-type: none"> <li>- Setting out the buildings, roads, culverts, bridges.</li> </ul> </li> </ul> <p><b>No. of lectures: 23</b></p>	<b>2</b>	<b>46</b>	<ul style="list-style-type: none"> <li>• Class Lecture</li> <li>• Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment -II (05)</li> <li>• Class Test 2 (05)</li> <li>• Final Exam (36)</li> </ul>

<ul style="list-style-type: none"> <li>• <b>Trigonometric Levelling</b> <ul style="list-style-type: none"> <li>- Determination of Reduced levels of elevated objects when the base is accessible and inaccessible.</li> </ul> </li> <li>• <b>Hydrographic Surveying</b> <ul style="list-style-type: none"> <li>- Hydrographic Surveying and its applications</li> <li>- Sounding and instruments used in soundings</li> </ul> </li> <li>• <b>Photogrammetry</b> <ul style="list-style-type: none"> <li>- Photographic surveying</li> <li>- Terrestrial and Aerial surveying</li> </ul> </li> <li>• <b>Remote Sensing and GPS</b> <ul style="list-style-type: none"> <li>- Introduction to remote sensing and GPS</li> <li>- Use of GPS in the field of Survey.</li> </ul> </li> </ul> <p><b>No. of lectures: 10</b></p>	<b>1</b>	<b>24</b>	<ul style="list-style-type: none"> <li>• Class Lecture</li> <li>• Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Final Exam (24)</li> </ul>
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#### ASSESSMENT DETAILS

S. No.	Assessment Activities	Marks	Activities		CLO(s) to be assessed
1	Class Test/Assignment/Quiz	20	Assignment	2	1,2
			Class Test	2	1,2
2	Mid Semester Exam	20	1		1
3	Final Semester Exam	60	1		1, 2

Prepared by: <b>Engr. Azizullah Jamali</b>  Signature: Dated: 12-04-2023	Reviewed by: <b>Curriculum Review Committee</b>  Signature: Dated: 18-04-2023	Approved by: <b>Chairman, CED</b>  Signature: Dated: 18-04-2023
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