OBJECTIVES:
The course aims to enhance students’ understanding of the United Nations’ Sustainable Development Goals and encourages students to develop critical thinking skills and learn quantitative methods that will enable them to identify the many complex challenges in achieving sustainability, while also fostering the problem-solving abilities required to achieve sustainable development in the 21st century.

COURSE SYNOPSIS:
This course aims to introduce the concept of sustainability through the lens of the United Nations’ Sustainable Development Goals (SDGs), and learn how to quantify the progress towards sustainable development. The course begins with an overview of concept and background knowledge of the 17 Sustainable Development Goals and then focus on quantification of sustainable development such as progress towards sustainable development goals, green development level, progress of ecological civilization etc. The discussion is followed by introducing students to knowledge in three areas: starting from the current progress in achieving 17 Sustainable Development Goals, through human interventions for promoting SDGs, and how to quantify sustainable development progress. The course also provides students with knowledge about trade-off and synergies between different dimensions of sustainable development and challenges we face to achieve sustainable development.

LECTURE TOPICS:
• Basic concept of all 17 SDGs, MDGs, Green Development, Ecological Civilization, Environmental Sustainability and Economic Development Quality
• Reduce poverty: frontier and sustainable development progress
• Ensure food security: frontier and sustainable development progress
• Alleviate water scarcity: frontier and sustainable development progress
• Renewable energy: frontier and sustainable development progress
• Sustainable economic growth: frontier and sustainable development progress
• Combat with climate change by reducing carbon emission: frontier and sustainable development progress
• Sustainable development index for quantifying sustainable development progress towards SDGs
• Quantification methods for Green Development and Ecological Civilization
• Quantification methods for Economic Development Quality and Environmental Sustainability
• Impacts of human interventions (e.g., policy, management, technology et al.) on achieving Sustainable Development and challenges we face to achieve sustainable development
• Interlinkages between different dimensions of sustainable development

RECOMMENDED READING LIST:

GEOG2161 Sustainability Assessment, Analysis and Management

TIMETABLE ARRANGEMENT: Annual; 2nd Semester

CREDITS: 6

COURSE TEACHER: Professor Zhenci XU

ASSESSMENT:

<table>
<thead>
<tr>
<th>EXAMINATION 60 %</th>
<th>COURSEWORK 40 %</th>
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<tbody>
<tr>
<td>• Exam</td>
<td>• Final reports</td>
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<td>• Group project oral presentation</td>
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<tr>
<td>Course Learning Outcomes (CLOs)</td>
<td>Alignment with Programme Learning Outcomes (PLOs)</td>
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<td>After completing this course, students would be able to:</td>
<td>1 2 3 4 5 6</td>
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<tr>
<td>1 Acquire a basic understanding about the concept of sustainability and environmental, economic and sociocultural obstacles to realizing sustainability.</td>
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<td>2 Identify and be able to determine progress in achieving SDGs by examining relevant targets and select indicators for assessing progress towards achieving SDGs, or quantify level in green development or ecological civilization or environmental sustainability etc.</td>
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<td>3 Analyze spatio-temporal variations in progress towards sustainable development</td>
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<td>4 Learn how to achieve sustainable development through human interventions</td>
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<td>5 Be able to critique the SDGs</td>
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