ORIGINAL COURSE IMPLEMENTATION DATE: September 2024

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval)**:** March 2030

Course outline form version: 09/08/2021

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: GEOG 320	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Sustainable Transportation **Course Short Title:** Sustainable Transportation	
Faculty: Faculty of Science	**Department:** Planning, Geography and Environmental Studies

Calendar Description:

The course provides a broad understanding of the transportation issues. It is an interdisciplinary international survey of the cultural, social, and economic impacts of transportation and its effects on built and natural environments. This course explores the sustainability of the transportation alternatives besides the private automobile.

Note: Students with credit for GEOG 300U cannot take this course for further credit.

Prerequisites (or NONE):	45 university-level credits.
Corequisites (if applicable, or NONE):	
Pre/corequisites (if applicable, or NONE):	

Antirequisite Courses *(Cannot be taken for additional credit.)*

Former course code/number: **GEOG 300U**

Cross-listed with:

Equivalent course(s):

(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)

Typical Structure of Instructional Hours

Lecture/seminar	20
Experiential (field trip)	10
Tutorials/workshops	15
Total hours	**45**

Scheduled Laboratory Hours

Labs to be scheduled independent of lecture hours: ☒ No ☐ Yes

Course Details

Special Topics course: **No**

(If yes, the course will be offered under different letter designations representing different topics.)

Directed Study course: **No**

(See policy 207 for more information.)

Grading System: **Letter grades**

Delivery Mode: **May be offered in multiple delivery modes**

Expected frequency: **Annually**

Maximum enrolment (for information only)**: 28**

Prior Learning Assessment and Recognition (PLAR)

PLAR is available for this course.

Transfer Credit *(See **bctransferguide.ca**.)*

Transfer credit already exists: **No**

Submit outline for (re)articulation: **No**

(If yes, fill in transfer credit form.)

Department approval	**Date of meeting:**	January 11, 2024
Faculty Council approval	**Date of meeting:**	February 2, 2024
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	March 1, 2024

Learning Outcomes *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Describe the connection between transportation and the environment.
2. Discuss sustainable transportation theories through spatial justice, human rights, gender, Indigenous, and equity, diversity, and inclusion (EDI) lenses.
3. Investigate the ways in which the land use and diverse transportation modes work together to achieve smart growth, neo urbanism and transit-oriented development.
4. Critically examine innovative sustainable transportation measures including Intelligent Transportation Systems, carpooling, bus rapid transit, electric vehicles, complete streets, traffic calming, and related sustainable infrastructure.
5. Apply course concepts to real-life sustainable transportation projects.

Recommended Evaluation Methods and Weighting *(Evaluation should align to learning outcomes.)*

Final exam:	15%	Assignments:	35%		%
Quizzes/tests:	10%	Project:	40%		%

Details:

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Texts and Resource Materials

	Type	Author or description	Title and publication/access details	Year
1.	Textbook	Preston L. Schiller and Jeffrey R. Kenworthy	An Introduction to Sustainable Transportation: Policy, Planning and Implementation	2017
2.	Textbook	Henrik Gudmundsson, Ralph P. Hall	Sustainable Transportation: Indicators, Frameworks, and Performance Management	2016
3.		Other supporting text supplied by the instructor		

Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

None

Course Content and Topics

1. Introduction to sustainable transportation
2. Transport and the environment
3. Alternative propulsion technologies
4. Active modes of transportation and related advocacy: biking and skateboarding
5. Active modes of transportation and related advocacy: walking
6. Transit-oriented-development: smart cities, neo-urbanism, green cities
7. Complete streets and traffic calming techniques
8. Transportation policy and sustainability: key policy, planning and engineering best practices that relate to sustainable transportation
9. Public transportation: bus rapid transit, light rail transit, etc.
10. Public transportation for all: equity issues
11. Future of sustainable transportation: autonomous vehicles and smart corridors