

Course Proposal Summary

Ongoing proposal information

12/23/25: Course approved by CCC. jKG
10/21/25 New undergrad course to be taught Fall 2027. Approved by undergrad committee on 9/5/25 and full faculty group on 9/12/25. This was held as a topics course in Fall 2025. -sjensen

Curriculum contact name Frances Homans, APEC Major Coordinator	Curriculum contact email address fhomans@umn.edu
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Basic Course Information

Effective term Fall 2026	PeopleSoft course ID -	Effective date Sep 8, 2026
Active/inactive status Active	Appear in course catalog? Yes	
Institution UMNTC	Campus Twin Cities	
College TCOA - College of Food, Agricultural and Natural Resource Sciences	Career Undergraduate	
Department Applied Economics (11033)		
Course subject code APEC	Course number 3621	
Course name Applied Economics of Climate Change		
Course name for transcript Applied Econ of Climate Change		

Course description

The economics of climate change will be investigated using basic economic concepts and policy analysis. Conceptual foundations will first be reviewed, focusing on market processes and public economics. Policy challenges to adaptation to and mitigation of climate effects will be analyzed. Costs of damages will be assessed. Institutional innovations will be considered and evaluated.

Pre-req: APEC 1101 or ECON 1101 or ESPM 3261 or permission of instructor

Course Enrollment and Student Planning

Grading basis

OPT - Student Option

Typically offered term(s)

Fall Odd Year

Typical meeting pattern

Two 75 min. meetings per week

Require consent to enroll

No Special Consent Required

Require consent to drop

No Special Consent Required

Assign existing prerequisite or corequisite

undefined - undefined

Do you need to define a new prerequisite or corequisite?

Yes

Define new prerequisite or corequisite

APEC 1101 or ECON 1101 or ESPM 3261 or instructor permission

Can students enroll in more than one section of this course in the same term?

No

Prerequisites and Corequisites (Crookston only)

Equivalencies and Cross-listings

Is this course equivalent to any other courses?

No

Is this course cross-listed with any other courses?

No

Credits, Instructional Time, and Repeats

Credits

Minimum credits:

3

Maximum credits:

3

Instructional time (hours)

Minimum instructional
time:

3

Academic progress units

Academic progress units:

3

Financial aid units

Financial aid units:

3

Is this course repeatable?:

No

What is the maximum number of times a student
could earn credit for taking this course?:

1

What is the maximum number of credits a student
can earn from this course?:

3

Course Characteristics

Course attributes

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Will this course ever be offered online or primarily online?

No

Is this a topics course?

No

Is any portion of this course
taught outside of the United
States?

No

Is this an honors course?

No

Is this a freshman seminar?

No

If this course uses community-engaged learning (CEL) instructional strategies, indicate up to 5 CEL values.

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CIP code

45.0602

HEGIS code

45.0602

Components

Code

LEC

Name

Lecture

Primary and Graded Component Details

Primary component

Lecture

Graded component

Lecture

Student Learning Outcomes (Undergraduate Crookston, Duluth, and Twin Cities only)

Learning outcome

Can identify, define and solve problems

How will this outcome be addressed in the course?

Identification and defining problems is the key to solving them although in climate economics it is not obvious that we can or will do so. A.K. Sen describes this as the three actions of description, prediction and prescription. This is how the course is designed.

How will the instructor assess the students' learning related to this outcome?

For all three SLOs the course meets, the instructor will assess the students via three exams and an in-class evaluation of student learning. Problem solving, critically evaluating information and communication will all be a part of these exams and evaluations.

Learning outcome

Can locate and critically evaluate information

How will this outcome be addressed in the course?

Locating and evaluating information will be directly accomplished through the course reading materials and weekly real-time updates.

How will the instructor assess the students' learning related to this outcome?

For all three SLOs the course meets, the instructor will assess the students via three exams and an in-class evaluation of student learning. Problem solving, critically evaluating information and communication will all be a part of these exams and evaluations.

Learning outcome

Can communicate effectively

How will this outcome be addressed in the course?

Effective communication will be facilitated through class discussion and the take home final essay.

How will the instructor assess the students' learning related to this outcome?

For all three SLOs the course meets, the instructor will assess the students via three exams and an in-class evaluation of student learning. Problem solving, critically evaluating information and communication will all be a part of these exams and evaluations.

Course Dependencies and Curricular Impacts

Course Proposal Details

Consultation with other units

Ford Runge (the instructor) reviewed the U of M catalog across colleges and departments and found no significant overlap with existing course offerings. Ford also spoke with Forestry, Ecology, IonE, CBS, BBE, Humphrey, PoliSci, Geography, Global Studies, Interdisc. on Global Change, and the Law School during promotion efforts, and thinks this course meets a need that other programs aren't offering

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CSOM has no concerns.

-Mary Benner

The School of Public Health does not have any concerns about these courses.

-Elizabeth V. Wattenberg, Ph.D.

The College of Science and Engineering has no concerns.

-David A. Blank

No concerns from CDes.

-Greg Donofrio

CEHD has no concerns.

-Nicola Alexander, PhD

No concerns from CLA.

-Nicola Imbrascio

CBS has no concerns.

-Tracey Hammell

Liberal and General Education

Are you proposing this course to meet a general or liberal education requirement?

Yes

Proposed Twin Cities Liberal Education Core

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Proposed Twin Cities Liberal Education
Designated Theme

The Environment

This course is approved as a Core, effective

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This course is approved as a Designated Theme, effective

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Approved Twin Cities Liberal Education Requirement(s)

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Describe how the course meets Liberal Education Designated Theme course criteria

The course APEC 3621: Applied Economics of Climate Change is deeply embedded in the principles of liberal education. Liberal education is about broadening students' perspectives, fostering critical thinking, and preparing them to be informed and engaged citizens. This course aligns with these goals - specifically as it relates to the environment - as follows:

-The course raises environmental issues of major significance: This course is about the economics of climate. Climate is an issue of major significance, affecting all forms of life on earth.

-The course gives explicit attention to interrelationships between the natural environment and human society: This course focuses explicitly on the ecology/human economic interface.

-The course introduces the underlying scientific principles behind the environmental issues being examined: It evaluates the scientific basis for changes in global mean temperature and their implications for damages to the global economy.

-Students explore the limitations of technologies and the constraints of science on the public policy issues being considered: By evaluating these scientific principals, the course allows students to consider various technological and institutional remedies.

-Students learn how to identify and evaluate credible information concerning the environment: Examples of credible and less than credible information concerning these processes are considered.

-Students demonstrate an understanding that solutions to environmental problems will only be sustained if they are consistent with the ethics and values of society: Throughout the course, an emphasis is given to the ethical questions that lie beneath economic analysis of global change.

Are you proposing this course to meet the Writing Intensive requirement?

No

This course is approved as Writing Intensive

No

This course is approved as Writing Intensive, effective

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Syllabus (All Rochester and Twin Cities Careers, Duluth 8xxx-Level)

Upload a syllabus from within the past 2 years

[APEC 3621 - Fall 2027.docx.pdf](#)