Natural Sciences Program
EEEL 445
403 220-8600
usc@ucalgary.ca

COURSE OUTLINE

1. **Course:** SCIE 529, Project Course in Sustainable Energy, Environment and Economy - Winter 2023

   Lecture 01 : TR 12:30 - 13:45 in HNSC 122

Instructor	Email	Phone	Office	Hours
Dr Jared Stang	jared.stang@ucalgary.ca	403 220-8073	SB 527A	Thursdays 11:30--12:20

To account for any necessary transition to remote learning for the current semester, courses with in-person lectures, labs, or tutorials may be shifted to remote delivery for a certain period of time. In addition, adjustments may be made to the modality and format of assessments and deadlines, as well as to other course components and/or requirements, so that all coursework tasks are in line with the necessary and evolving health precautions for all involved (students and staff).

In Person Delivery Details:

SCIE 529, Project Course in Sustainable Energy, Environment and Economy, is a term-long group project, culminating in a presentation and paper, on a topic of your choosing related to sustainable energy, environment and economy. Course content will support student development of synthesis, analysis, and communication skills through learning as part of our classroom community.

Course communication

All course communication (including questions about content or course logistics, and project-related questions) will take place on the Piazza discussion forum. By using the forum, your classmates can see and contribute to discussions about the course content to the benefit of everyone's learning.

Exception: For personal questions, please contact Jared via email or in person after class or in office hours. Please expect a 5-business-day turnaround for email replies.

Classes

The scheduled course lecture time will be used for both delivery of course content and project-related activities. If you are ill, you should not attend class. If you miss classes with project-related activities, you will be required to coordinate with your group on an acceptable way for you to contribute.

The course schedule as shown here and in the grading rubric is subject to change.

Week	Topics / activities
1, Jan 9–13	Welcome; course incomes; solo pitches
2, Jan 16–20	Solo pitches; literature searching (guest workshop, James Murphy, Librarian)
3, Jan 23–27	Teamwork; group contracts; project planning
4, Jan 30–Feb 3	Reading papers; obtaining data; project planning
5, Feb 6–10	Writing outlines; group pitches
6, Feb 13–17	Group contract reflection; consultations
Term break	
7, Feb 27–Mar 3	Writing paragraphs; peer review outlines
8, Mar 6–10	In-class assignment; consultations
9, Mar 13–17	Figures, tables, abstracts; slides and visuals
10, Mar 20–24	Peer review papers; voice and performance (guest workshop, Merran Carr-Wiggin, Librarian)
11, Mar 27–31	Consultations; presentations
12, Apr 3–7 (Friday holiday)	Presentations
13, Apr 10–12	Presentations

Inclusivity

SCIE 529 is a learning community that is welcoming of diverse backgrounds, experiences, and perspectives. This means that we strive for inclusivity in our classroom, virtual spaces, practices, and interactions. Mutual respect, civility, and the ability to listen to and observe others carefully are crucial; active, thoughtful, and respectful participation in all aspects of the course will make our time together as productive and engaging as possible. Please indicate if you have a preferred name that you'd like to be called. (You can update your preferred name in

the "Personal Information" section of My UCalgary.) You are also encouraged to help others use your correct pronouns by including them on your name tent, if you're comfortable to to do this. Discrimination or harassment of any form will not be tolerated. I also welcome any suggestions for improving the learning environment.

If you have a particular need to facilitate your learning in this course, please contact Student Accessibility Services (details in section 12.f, above) as soon as possible to arrange accommodations.

Re-Entry Protocol for Labs and Classrooms:

To limit the spread of COVID-19 on campus, the University of Calgary has implemented safety measures to ensure the campus is a safe and welcoming space for students, faculty and staff. The most current safety information for campus can be found here.

Course Site:

D2L: SCIE 529 L01 - (Winter 2023) - Project Course in Sustainable Energy, Environment and Economy

Note: Students must use their U of C account for all course correspondence.

Equity Diversity & Inclusion:

The University of Calgary is committed to creating an equitable, diverse and inclusive campus, and condemns harm and discrimination of any form. We value all persons regardless of their race, gender, ethnicity, age, LGBTQIA2S+ identity and expression, disability, religion, spirituality, and socioeconomic status. The Faculty of Science strives to extend these values in every aspect of our courses, research, and teachings to better promote academic excellence and foster belonging for all.

2. **Requisites:**

See section 3.5.C in the Faculty of Science section of the online Calendar.

Prerequisite(s):
75 units (12.5 full-course equivalents) and admission to the Energy and the Environment Specialization, the Energy Management Concentration or the Energy Science Concentration.

3. **Grading:**

The University policy on grading and related matters is described in F.1 and F.2 of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Course Component	Weight	Due Date (duration for exams)	Modality for exams	Location for exams
Solo pitch[1]	2%	Ongoing		
Homework / class preparation[2]	6%	Ongoing		
Consultations[3]	4%	Ongoing		
Group contract[4]	4%	Ongoing		
Annotated bibliography[5]	10%	Ongoing		
Paper outline[6]	4%	Ongoing		
Presentation[7]	17%	Ongoing		
Paper[8]	41%	Ongoing		
Group pitch[9]	2%	Feb 09 2023		
In-class assignment[10]	10%	Mar 14 2023		

[1] Solo: In-class (week 1 or 2).

[2] Solo: Homework for practice of course skills or preparation for the next class; assigned as needed.

[3] Group: In-class consultations with Jared or AC (weeks 6, 8, and 11). For grading items labelled as "Group," all members of the Group earn the same score.

[4] Group: Contract (week 3) and contract reflection (week 6).

[5] Group: Includes version 1 (week 4) and version 2 (week 6).

[6] Group: Paper outline and outline peer review (week 7).

[7] Group: Communication proposal (week 8) and presentation (weeks 11-13).

[8] Group: Final paper, including first submission (week 10), peer review (week 10), review reply (week 13), and revised final submission (week 13).

[9] Group: In-class group pitch (week 5).

[10] Solo: In-class assignment (week 9).

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	95 %	90 %	87 %	84%	81%	78 %	75 %	72%	69%	66 %	60 %

For grading items labelled as "Group," all members of the Group earn the same score.

The University of Calgary offers a flexible grade option, Credit Granted (CG) to support student's breadth of learning and student wellness. Faculty units may have additional requirements or restrictions for the use of the CG grade at the faculty, degree or program level. To see the full list of Faculty of Science courses where CG is not eligible, please visit the following website: https://science.ucalgary.ca/current-students/undergraduate/program-advising/flexible-grading-option-cg-grade

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, one possible arrangement is that the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course. This option is at the discretion of the coordinator and may not be a viable option based on the design of this course.

Most assessments in this course are done with your group. Early in your course, you will create arrangements in your group contract that account for possible absences in group activities.

For missed solo assessments due to illness or other extenuating circumstance, please contact the instructor within 48h of the assessment to discuss an accommodation.

5. **Scheduled Out-of-Class Activities:**

   There are no scheduled out of class activities for this course.

6. **Course Materials:**

   Piazza will be used as a course discussion board. Your instructor and TA will be able to answer all course-related questions on this forum, and you will be able to participate in the discussions of your peers. Piazza stores any information you provide on out-of-country servers. You may choose to sign up with a pseudonym email and/or name to protect your privacy. All personal questions should be directed to your instructor via email.

   In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

   - A computer with a supported operating system, as well as the latest security, and malware updates;
   - A current and updated web browser;
   - Webcam/Camera (built-in or external);
   - Microphone and speaker (built-in or external), or headset with microphone;
   - Current antivirus and/or firewall software enabled;
   - Stable internet connection.

   For more information please refer to the UofC ELearning online website.

7. **Examination Policy:**

   There is no course exam.

   Students should also read the Calendar, Section G, on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

   There are no mandatory or optional course supplemental fees for this course.

9. **Writing Across The Curriculum Statement:**

   For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:**

    Students will not participate as subjects or researchers in human studies.

    See also Section E.5 of the University Calendar.

11. **Reappraisal Of Grades:**

    A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section I.3 of the University Calendar.

    a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections I.1 and I.2 of the University Calendar

    b. **Final Exam:** The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

12. **Other Important Information For Students:**

    a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university

community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Services:** For more information, see their website or call 403-210-9355.

c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed here.

d. **Student Ombuds Office:** A safe place for all students of the University of Calgary to discuss student related issues, interpersonal conflict, academic and non-academic concerns, and many other problems.

e. **Student Union Information:** SU contact, Email your SU Science Reps: science1@su.ucalgary.ca, science2@su.ucalgary.ca, science3@su.ucalgary.ca,

f. **Academic Accommodation Policy:**

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf.

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, by filling out the Request for Academic Accommodation Form and sending it to Dr. Nicole Sandblom by email ntscdirector@ucalgary.ca preferably 10 business days before the due date of an assessment or scheduled absence.

g. **Misconduct:** Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional Code of Conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor's consent; submitting or presenting work as if it were the student's own work; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

Student Handbook on Academic Integrity
Student Academic Misconduct Policy and Procedure
Faculty of Science Academic Misconduct Process
Research Integrity Policy

Additional information is available on the Student Success Centre Academic Integrity page

h. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.

i. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see Legal Services website.

j. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (USRI) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with

evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.

Course Outcomes:

- Critically analyze current research and developments in the area of sustainable energy
- Advocate a solution related to the area of sustainable energy by researching all aspects of the topic to form and defend a stance on how the industry could best move forward on issues related to the topic
- Communicate ideas and concepts effectively in both written and oral presentations to both peers and the general public.
- Collaborate with peers to complete a project and presentation on their topic in sustainable energy
- Provide effective feedback to peers.

Electronically Approved - Jan 09 2023 12:27

Department Approval