



COURSE OUTLINE

1. **Course:** NANS 401, Design in Nanoscience - Winter 2021

Lecture 01: TR 18:00 - 19:15 - Online

Instructor	Email	Phone	Office	Hours
Dr Simon Trudel	trudels@ucalgary.ca	403 210-7078	SB 417	by appointment
Dr. Max Anikovskiy	m.anikovskiy@ucalgary.ca	403 220-3115	EEEL 237A	by appointment

In Person Delivery Details:

Laboratories will be in-person, as scheduled.

Re-Entry Protocol for Labs and Classrooms:

To limit the spread of COVID-19 on campus, the University of Calgary has implemented an Instructional Space Re-Entry Protocol that must be followed. Details are found in the [Covid-19 Protocol for Class and Lab re-entry.pdf](#) document. **Online Delivery Details:**

This course is being offered online in real-time via scheduled meeting times, you are required to be online at the same time.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

This course has a registrar scheduled, synchronous final exam. The writing time is 2 hours + 50% buffer time.

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time.

Lectures will be delivered online, with no face-to-face components. The lectures will be delivered in two blocks by two co-instructors.

For clarity, *synchronous* lectures are *live*; *asynchronous* are viewed *on-demand*.

Except for asynchronous content, synchronous content will not be recorded. Lecture notes will be made available on D2L.

Prof. Simon Trudel (January 12 to February 25)

This block will be delivered in a hybrid fashion. Students are expected to attend most of the scheduled lecture times, however some content will be made available in online recordings ahead (and in lieu of) lecture time. Specific dates and times for synchronous content will be posted on D2L, at least one week in advance. Students should reserve the scheduled class time for synchronous content.

Prof. Max Anikovskiy (March 2 to April 15)

This block will be delivered in a synchronous fashion (students are expected to attend at scheduled lecture times).

Course Site:

D2L: NANS 401 L01-(Winter 2021)-Design in Nanoscience

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

Instructors will respond to email inquiries about the course within 24 hours, except on weekends and holidays.

2. **Requisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

Prerequisite(s):
Nanoscience 301.

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:

Component(s)	Weighting %	Date	Note
Quizzes (synchronous)*	24	see Note a	a
Assignments	6	see Note b	b
Term test (synchronous)*	15	Feb. 25, 2021	c
Term paper (proposal)	20	April 16, 2021	d
Final exam (synchronous)*	20	scheduled by registrar	e
Laboratories	15		

Notes

a. Quizzes are done in-class, and are designed to be completed in 8 minutes but you will be given 12 minutes to account for any issues.

Quizzes will tentatively occur on the following dates:

Q1: January 19

Q2: January 26

Q3: February 2

Q4: March 11

Q5: March 18

Q6: March 23

Q7: March 30

Q8: April 6.

While dates may vary by one class period, the number of quizzes is fixed to 8. All Quizzes carry the same weight (2% of total grade each). Students will be given notice the lecture period before should the quiz be postponed (quizzes will not be moved up in the schedule).

b. Assignments are done outside of scheduled lecture time. There will be 2 assignments:

A1: February 4, individual assignment, due February 11.

A2: April 8, individual assignment, due April 11.

Both Assignments carry the same weight (3% of total grade each)

The Term Test and Quizzes will be synchronous assessments.

c. The Term Test will be a scheduled in-class synchronous activity. The term test will be from 18:00 to 19:15. The test is designed to be completed within 50 minutes, you will be given 75 minutes to account for any issues. You MUST start your exam between 18:00 and 18:05, after which the link to the exam will become unavailable.

d. The Term Paper is a group task. All students within a group will be assigned the same grade, unless egregious circumstances warrant so. Any such issues must be discussed with the instructor *prior* to submission.

A mandatory draft must be submitted for TA feedback. Failure to submit a draft of the proposal by March 1, 2021 will result in a 20% deduction of the proposal final grade

e. The Final Exam will be a 2-hour synchronous exam, scheduled by the registrar. This does not include an additional 50% contingency (1 hr).

* For any synchronous or timed assessment, time will be adjusted for SAS students if needed and accommodations for students will be done on a case-by-case basis.

Students requiring non-SAS accommodations (e.g., accommodating time zones) must provide this request to the instructor **no less than 7 days before** the assessment's scheduled time.

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 %	86 %	82 %	78%	74%	70 %	66 %	62%	58%	54 %	50 %

This course will have a final exam that will be scheduled by the Registrar. [The Final Examination Schedule](#) will be published by the Registrar's Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 2 hours.

The final exam will be administered using an on-line platform. Per section [G.5](#) of the online Academic Calendar, timed final exams administered using an on-line platform, such as D2L, will be available on the platform where the additional time will be added to the beginning of the registrar scheduled exam. E.g. If an exam is designed for 2 hours and the final exam is scheduled from 9-11am in your student centre, the additional time will be added to the start time of the exam. This means that if the exam has a 1 hour buffer time,

- a synchronous exam would start at 8 am and finish at 11am.

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, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

5. Scheduled Out-of-Class Activities:

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

6. Course Materials:

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:

The term test and final exams will be open book. Access to your class notes and all material on D2L are allowed. Access to the internet (beyond D2L) is not permitted unless explicitly stated. Both examinations must be conducted individually.

Quizzes must be conducted individually and meant to be closed book. Access to class notes, handouts, D2L and the internet are not permitted.

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 www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel: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 (syva@ucalgary.ca) or phone at [403-220-2208](tel:403-220-2208). The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>)
- d. **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](#)
[Research Integrity Policy](#)

Additional information is available on the [Student Success Centre Academic Integrity page](#)

- e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at [procedure-for-accommodations-for-students-with-disabilities.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Associate Head of the Nanoscience Program, Dr. Yuen-Ying Carpenter by email ahugchem@ucalgary.ca or phone 403-220-6908. Religious accommodation requests relating to class, test or

exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See [Section E.4](#) of the University Calendar.

- f. **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.
- g. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](#) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](#) Email: sciencerep@su.ucalgary.ca. [Student Ombudsman](#), Email: ombuds@ucalgary.ca.
- h. **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.
- i. **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.

Course Outcomes:

- describe aspects of nanoparticle synthesis
- key methods of nanomaterials characterization
- describe applications of nanomaterials in bio-sensing
- familiarize with hands-on experimental methods of nanoparticle synthesis and characterization
- participate actively in a group by contributing to group discussions and writing a scientific proposal

Electronically Approved - Jan 06 2021 10:01

Department Approval

Electronically Approved - Jan 06 2021 11:49

Associate Dean's Approval