

**Chemistry 298 Spring 2021**  
Syllabus

<b>Instructor</b>	Robin S. Tanke, Ph.D.
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<b>Office:</b>	CBB 447
<b>Office Hours:</b>	Due to COVID restrictions please e-mail for a ZOOM appointment

**Class Sessions:** In person: Monday 9:00-9:50 CBB 105 or On-line

**Midterm Exam:** Monday, March 15, 2021 Available 8:50 AM – 10AM on CANVAS

**Final Exam:** Monday, May 17, 2021 12:30 – 2:30PM on CANVAS

**Special COVID Precautions**

**Face Coverings:**

- At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the [Disability and Assistive Technology Center](#) to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

**Other Guidance:**

- Please monitor your own health each day using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
- As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.

Please maintain these same healthy practices outside the classroom 😊

**Recordings of Monday's lecture will be available on CANVAS as will slides presented during class later on Monday – Technology willing!**

**Learning Outcomes:**

At the end of this course, students can:

- ☉ discuss the interest in nanoscience from a variety of scientific perspectives
- ☉ explain on a basic level unusual phenomena observed on the nanoscale
- ☉ explain on a basic level tools used to characterize nanomaterials
- ☉ provide multiple examples of nanomaterial preparation
- ☉ discuss several current and predicted applications of nanomaterials.

**Prerequisite:** Chem 220, Chem 325 or consent of instructor

**Required Materials:** The textbook, The Science of Nanotechnology: An Introductory Text, is available from text rental.

**Grading:** The tentative letter grades will be given as follows: "A" - 185 points, "B" 165 points, "C" 145 points, "D" 125 points.

1. 10 Homework Assignments	100 points
2. Midterm exam	30 points
3. Literature Assignment	30 points
4. Final Exam	40 points
<b>Total</b>	<b>200 points</b>

**Student Conduct:**

Students are reminded that they are to conduct themselves in accordance with the rules for academic conduct. The University of Wisconsin System and UWSP Chapter 14 of the Wisconsin Administrative Code, Rules of the Board of Regents of the University of Wisconsin System is to be followed by all students, staff, and faculty. A copy can be found at <https://www.uwsp.edu/dos/Documents/UWSP14-Final2019.pdf>

**Disabilities:** If you have disabilities and need any special accommodations, you should contact the office of Disability Services during the first two weeks of the semester.

**Accommodations for Religious Beliefs:** Religious beliefs will be accommodated according to UWS 22.03 provided I am notified during the first three weeks of classes.

**This Course is a result of a NSF Nanotechnology in Undergraduate Education Initiative NUE: Sophomore Course and Ancillaries in Nanoscience (SCAN)**

### Chemistry 298 Tentative Schedule 2021

Date	Topic	Assignment due
1/25	Introduction to Nanotechnology	
2/1	Introduction to Nanotechnology	Homework Assignment 1
2/8	Characterization: Microscopy (TEM, SEM, AFM, STM)	Homework Assignment 2
2/15	Characterization: Microscopy Continued	Homework Assignment 3
2/22	Characterization: Bulk Techniques (UV-VIS, PL, Raman, XRD)	Homework Assignment 4
3/1	Synthesis of Nanomaterials: Particles	Homework Assignment 5
3/8	Synthesis of Nanomaterials: Graphene and Carbon Nanotubes	Homework Assignment 6
3/15	MIDTERM EXAM – On line	
3/22	Spring Break! 😊	
3/29	Synthesis of Nanomaterials: Wires	
4/5	Synthesis of Nanomaterials: Surfaces	Homework Assignment 7
4/12	Physical Properties: How strong are nanomaterials?	Homework Assignment 8
4/19	Magnetic Properties of Nanoparticles	Homework Assignment 9
4/26	Optical Properties of Nanoparticles	Homework Assignment 10
5/3	Technological Advances and Safety Considerations	Literature Assignment Due
5/10	Review and Class Discussion	
5/17	<b>Final Exam 12:30-2:30 PM</b>	

Robin Tanke Spring 2021

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00					Safer at Home
09:00	298 Lec 01 CBB 105			Chem 326 Virtual Q&A	
10:00					
11:00		Research		326 Lab 02L2 420/426	
12:00		Research	Chem 326 Q&A CBB 101	326 Lab 02L2 420/426	
13:00		Research		326 Lab 02L2 420/426	
14:00	105 Lab 01L1 CBB 226	105 Lab 01L2 CBB 226	326 Lab 02L3 CBB 420/426		Dept. Meeting
15:00	105 Lab 01L1 226	105 Lab 01L2 226	326 Lab 02L2 420/426	Chem 326 Q&A CBB 101	
16:00	105 Lab 01L1	105 Lab 01L2	326 Lab 02L2		