

# Course and Faculty Information

**Course Description:** This course will explore concepts in inorganic chemistry from a molecular and a solid-state point of view. Special focus items will be the description of the geometry and structure of molecules and solids, different bonding types and situations, organometallic chemistry, the synthesis and reaction of the compounds of interest. In addition, the students will get familiar with trends in the periodic table of the elements and characteristics of the elements and different subgroups within the periodic table. This will allow them to understand the typical behavior of the elements as well as the existence and formation of compounds/materials.

**Credits:** 3

**Prerequisites:** CHM 341 or 441

**Instructor:** Prof. Christina Birkel

**Office:** BDC 229

**Contact Info:** christina.birkel@asu.edu

**Office Hours:** Thursdays and Fridays (except for March 17<sup>th</sup>!), 9 am AZ time and by appointment

<https://asu.zoom.us/j/8512994329>

## Course Learning Objectives

You will build on knowledge from all of your previous chemistry courses to develop an understanding of bonding, electronic structure, properties, and reactivity of molecular and solid inorganic compounds. Upon completion of this course you will have the foundational inorganic knowledge needed for further study in such fields as solid state chemistry, materials chemistry, coordination and organometallic chemistry, chemical catalysis, and bioinorganic chemistry.

## Textbooks

Your lecture notes are sufficient to prepare for the exam, whenever further reading is required it will be posted. If you want to get textbooks for further reading, these are recommended:

- Inorganic Chemistry, 5<sup>th</sup> Edition, Gary Miessler
- Inorganic Chemistry, Mark Weller, Jonathan Rourke, Tina Overton, Fraser Armstrong, Oxford Press

Another great resource is the Wikibook developed at Penn State:

[https://en.wikibooks.org/wiki/Introduction\\_to\\_Inorganic\\_Chemistry](https://en.wikibooks.org/wiki/Introduction_to_Inorganic_Chemistry) (Links to an external site.)

## Course Access

Your ASU courses can be accessed by both [my.asu.edu](#)[Links to an external site.](#) and [asu.instructure.com](#) [\(Links to an external site.\)](#); bookmark both in the event that one site is down.

## Computer Requirements

This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers ([Chrome](#) [\(Links to an external site.\)](#), [Mozilla Firefox](#) [\(Links to an external site.\)](#), or [Safari](#) [\(Links to an external site.\)](#))
- [Adobe Acrobat Reader](#) [\(Links to an external site.\)](#) (free)
- [Adobe Flash Player](#) [\(Links to an external site.\)](#) (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office ([Microsoft 365 is free](#)[Links to an external site.](#) for all currently-enrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

*Note:* A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

## Help

For technical support, use the Help icon in the black global navigation menu in your Canvas course or call the ASU Help Desk at 1+(855) 278-5080. Representatives are available to assist you 24 hours a day, 7 days a week.

## Student Success

To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- watch the lecture videos
- watch the “How-to” tutorial videos and practice the mentioned additional problems
- complete the homework assignment problems by the due dates specified. This is the only way that you will actually learn the material
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track

- access [ASU Online Student Resources \(Links to an external site.\)](#)[Links to an external site.](#)

## Grading

Message Board Post	10 pts
Submit Practice RPNOW Exam	10 pts
Exams (5 x 100 pts, 2 x 75 pts)	650 pts
Assignments (5 x 30 pts)	150 pts
Special Assignment (video + feedback)	120 pts
Mindmap	60 pts
<b>Total</b>	<b>1000 pts</b>

+ Extra-credit for “winning” the Special Assignment.

+ Extra-credit option for mindmap.

Your grade will be determined based on the following grading schema:

Grade	Percentage	Points Range
A+	100% - 97%	1000 - 970
A	<97-94%	969 - 940
A-	<94-90%	939 - 900
B+	<90-87%	899 - 870
B	<87-84%	869 - 840
B-	<84-80%	839 - 800
C+	<80-77%	799 - 770
C	<77-70%	769 - 700
D	<70-60%	699 - 600
E	<60%	599 and below

## Assignments

There will be weekly assignments/homework problems. It is recommended that you print the assignments, solve the problems and treat the answers as you handle exams.

## Special Assignments

In week 4 and 5 you will be asked to complete a special assignment. This will include making your own video (be as creative as you like without sacrificing content (!)) about an assigned group in the periodic table. **The video must be between 2 and 2.5 minutes (!).** You are required to watch the videos of all other students and make comments/fill out a short feedback form. You will vote for the best presentation of a given group.

## Submitting Assignments

All assignments, unless otherwise announced, **MUST** be submitted to the designated area of Canvas. Do not submit an assignment via email.

Assignment due dates follow Arizona Standard time. Click the following link to access the [Time Converter \(Links to an external site.\)](#) to ensure you account for the difference in Time Zones. Note: Arizona does not observe daylight savings time.

## Grading Procedure

Grades reflect your performance on assignments and adherence to deadlines. Grades on assignments will be available within 72 hours of the due date in the Gradebook.

## Late or Missed Assignments

Notify the instructor **BEFORE** an assignment is due if an urgent situation arises and you are unable to submit the assignment on time.

Follow the appropriate University policies to request an [accommodation for religious practicesLinks to an external site.](#) or to accommodate a missed assignment [due to University-sanctioned activitiesLinks to an external site.](#).

## Communicating With the Instructor

### Community Forum

This course uses a discussion topic called "Community Forum" for general questions and comments about the course. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates.

Email questions of a personal nature to your instructor. You can expect a response within 72 hours.

## Slack

All students are encouraged to make use of the Slack Channel that can be found on the Canvas website.

## Chat

The Chat tool in Canvas allows students and teachers to interact in real time. Use Chat only for informal course-related conversations unless your instructor informs you otherwise. Chat is not ideal for questions about assignments; instructors are not required to monitor it and conversations may be buried or lost.

## Email

Please use Canvas as a primary means of communication with the instructor!

ASU email is an [official means of communication](#)[Links to an external site.](#) among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly. *All instructor correspondence will be sent to your ASU email account.*

## ASU Online Course Policies

View the [ASU Online Course Policies](#) [Links to an external site.](#)

## Accessibility Statements

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act as amended (ADAAA) of 2008, professional disability specialists and support staff at the Student Accessibility and Inclusive Learning Services (SAILS) center facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to the SAILS. Every effort is made to provide reasonable accommodations for qualified students with disabilities.

Qualified students who wish to request an accommodation for a disability should contact SAILS by going to <https://eoss.asu.edu/accessibility>, calling (480) 965-1234 or emailing [Student.Accessibility@asu.edu](mailto:Student.Accessibility@asu.edu). To speak with a specific office, please use the following information:

ASU Online and Downtown Phoenix Campus University Center Building, Suite 160 602-496-4321 (Voice)	Polytechnic Campus 480-727-1165 (Voice)
West Campus University Center Building (UCB), Room 130 602-543-8145 (Voice)	Tempe Campus 480-965-1234 (Voice)

## **Syllabus Disclaimer**

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Please remember to check your ASU email and the course site often.

## **Grade Appeals**

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the University Policy for Student Appeal Procedures on Grades.

## **Student Conduct and Academic Integrity**

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <http://provost.asu.edu/academicintegrity>. Additionally, required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, Computer, Internet, and Electronic Communications policy, and outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior.

The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

## **Disability Resources**

Students who feel they will need disability accommodations in this class but have not registered with the Disability Resource Center (DRC) should contact DRC immediately. The DRC Tempe office is located on the first floor of the Matthews Center Building. DRC staff can also be reached at: (480) 965-1234 (V) or (480) 965-9000 (TTY). For additional information, visit: [www.asu.edu/studentaffairs/ed/drc](http://www.asu.edu/studentaffairs/ed/drc).

## **Policy Against Threatening Behavior**

All incidents and allegations of violent or threatening conduct by an ASU student (whether on-or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances. For more information please visit <https://eoss.asu.edu/dos/srr/PoliciesAndProcedures> and <https://eoss.asu.edu/dos/safety/ThreateningBehavior>.

## **Title IX**

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling> is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services, <https://goto.asuonline.asu.edu/success/online-resources.html>.

## **Policy on Sexual Discrimination**

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty

members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling>, is available if you wish discuss any concerns confidentially and privately.

## **Prohibition of Commercial Note Taking Services**

In accordance with [ACD 304-06 Commercial Note Taking Services](#), written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the notetaker's name as well as the instructor's name, the course number, and the date.

## **Copyrighted Materials**

Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.