

## **Midland College Syllabus**

2022-2023

CHEM 2289

Academic Cooperative - Research Methods

2 Semester Credit Hours

(1 Lecture/3 Lab)

### **Instructor Information:**

Instructor: [Click here to enter text.](#)

Phone: [Click here to enter text.](#)

Office Hours: [Click here to enter text.](#)

Office: [Click here to enter text.](#)

Email: [Click here to enter text.](#)

### **Course Description:**

This course will expose students to experimental design, elementary statistics, and experiment interpretation, ethics in science, scientific literature, and communication of experimental results via technical writing seminar presentation.

### **Text, References and Supplies:**

No text required.

Scientific calculator required

### **Student Learning Outcomes (Chemistry 2289)**

Upon successful completion of this course, students will become competent in experimental design, elementary statistics applied to data sets, interpretations of experimental results, finding and utilizing scientific literature, and communication of experimental results via three formats; a.) Written form, b.) Seminar (PowerPoint) presentation, and c.) Poster presentation.

### **Student Contributions, Responsibilities and Class Policies:**

Students will be expected to comply with the policies outlined in the Midland College student handbook. Instructor policies concerning attendance and academic behavior are consistent with the policies in the student handbook. Regular attendance is required to do well in this class.

Students will be evaluated based on the results of examinations given throughout the semester. Your lecture instructor will inform you on the first day of class as to the tentative dates and content for each exam. Students are expected to complete each exam. Your instructor will inform you on the first day of class as to make-up procedures for missed exams and any exemption procedures if they apply (See Instructor Handout).

The last day for withdrawal is published in the catalog and current course schedule. To drop a course, the student must complete an official withdrawal form with Student Services.

Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the Midland College Student Handbook on this subject.

**Evaluation of Students:**

	<b>% of Grade</b>	<b>Grade Range</b>
Experiment Design Assignment	10 %	A=90%
Scientific Literature Search	10 %	B=80%
Statistics Assignment	10 %	C=70%
Ethics Assignment	10 %	D=60%
Written Report	20 %	F=below 60%
Poster Presentation	20 %	
Oral Presentation	20 %	

**Course Schedule:**

This class meets for 1 lecture hour per week and 3 laboratory hours per week. For a tentative schedule of the class meetings and laboratory meetings, please refer to the schedule distributed to each student on the first class meeting (See Instructor Handout).

**Intellectual Competencies:**

- **READING**-the ability to analyze and interpret a variety of printed materials - books, documents, and articles above 12th grade level.
- **WRITING**-the ability to produce clear, correct and coherent prose adapted to purpose, occasion and audience above 12th grade level.
- **SPEAKING**-ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience above 12th grade level.
- **LISTENING**-analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, reading above 12th grade level.
- **CRITICAL THINKING**-ability to apply both qualitative and quantitative skills analytically and creatively to subject matter to evaluate arguments and construct alternative strategies.

<b>Competency</b>					<b>Course Number</b>	<b>Course Title</b>
1	2	3	4	5		
X			X	X	CHEM 2289	Academic Cooperative

**Non-Discrimination Statement**

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

**Tana Baker**

Title IX Coordinator/Compliance Officer

3600 N. Garfield, SSC 131

Midland, Texas 79705

(432) 685-4781

[tbaker@midland.edu](mailto:tbaker@midland.edu)

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

**Americans with Disabilities Act (ADA) Statement:**

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit [www.midland.edu/accommodation](http://www.midland.edu/accommodation) and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

**Continuity of Instruction Statement**

In the event that on campus activities are suspended due to extenuating circumstances, such as weather or quarantine, the instructor will continue instruction in a manner that best supports the course content and student engagement. In this event, your instructor will notify students of the change via [Click here to enter text](#). At that time, they will provide details about how instruction and communication will continue, how academic integrity will be ensured, and what students may expect during the time that on campus activities are suspended. If a student becomes unable to continue class participation due to extenuating circumstances, (e.g., health and safety, loss of power, etc.) the student should contact their instructor and advisor for guidance. Resources are available to students via the SOS program. Information can be found at <https://www.midland.edu/services-resources/student-services/sos.php>.

**Grievances or complaints**

Concerns should be expressed as soon as possible to allow for early resolution. Midland College encourages students to discuss their concerns with their instructor first. If you feel uncomfortable discussing your situation with your instructor, students should discuss their concerns with the Chair of the appropriate department (Biology Chair – Mr. Tomas Hernandez (432-685-6751), Chemistry Chair – Mr. John Anderson (432-685-6737), Engineering and Physics Chair – Dr. Brian Flowers (432-685-4586), Geology Chair – Mr. Antony Giles (432-685-5580), Kinesiology Chair – Ms. Sheena Thompson (432-685-4579), Math Chair – Dr. Krista Cohlmlia (432-685-4541) then the Dean of Math and Science – Dr. Miranda Poage

(432-685-4561). If a resolution is still not possible, students may proceed with the formal complaint process.

<http://catalog.midland.edu/content.php?catoid=14&navoid=2579#grievances-and-complaints>

### **Math & Science Division Information:**

Division Office: AHSF 124 (432) 685-4561

Division E-Mail: [mns@midland.edu](mailto:mns@midland.edu)

Department Chair: Mr. John Anderson (432) 685-6737

Dean: Dr. Miranda Poage

Secretary: Sarah Anderson

Clerk: Liliana Orcutt

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