Instructor Information:
Instructor: Dr. Pat Kesavan
Office: Fox 1204
Phone: 685-6738
Email: pkesavan@midland.edu
Office Hours: MWF 9-10am;W 1-3pm;M-Th 12:30-1pm;TTh 9-9:30am,11am-12pm

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:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>% of Grade</th>
<th>Grade Range</th>
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<tbody>
<tr>
<td>Experiment Design Assignment</td>
<td>10 %</td>
<td>A=90%</td>
</tr>
<tr>
<td>Scientific Literature Search</td>
<td>10 %</td>
<td>B=80%</td>
</tr>
<tr>
<td>Statistics Assignment</td>
<td>10 %</td>
<td>C=70%</td>
</tr>
<tr>
<td>Ethics Assignment</td>
<td>10 %</td>
<td>D=60%</td>
</tr>
<tr>
<td>Written Report</td>
<td>20 %</td>
<td>F=below 60%</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>20 %</td>
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</tbody>
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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).

ADA Statement:
Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must place documentation on file with the Counselor/Disability Specialist. Students with disabilities should notify Midland College prior to the beginning of each semester. More information can be found at the [Midland College Catalog](https://www.mccd.edu/svcs/disability), or by contacting the Midland College Disability Specialist at 685-4505.

Student Services will provide each student with a letter outlining any reasonable accommodations. The student must present the letter to the instructor at the beginning of the semester.

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

- [Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu](mailto:tbaker@midland.edu)
- [Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu](mailto:nmorgan@midland.edu)

For further information on notice of non-discrimination, visit [http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm](http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm) or call 1 (800) 421-3481.

**Spanish**

Midland College no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad, o edad en sus programas o actividades. Las siguientes personas han sido designadas para responder a cualquier pregunta o duda sobre estas políticas.
no discriminatorias: Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu; Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu. Para más información sobre estas políticas no discriminatorias, visite http://wdcrobcollp01.ed.gov/CFAPPS/OCR/contactus.cfm o llame al 1 (800) 421-3481.

Math/Science Division Information:
Division Dean: Dr. Margaret Wade 125 AHSF (432) 685-4615
Department Chair: Dr. Brian Flowers 113 AHSF (432) 685-4586
Division Secretary: Mrs. Carol Pritchard 124 AHSF (432) 685-6404
Division Clerk: Ms. Sarah Anderson 124 AHSF (432) 685-6896

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.

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<thead>
<tr>
<th>Competency</th>
<th>Course Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>X</td>
<td>CHEM 2289</td>
<td>Academic Cooperative</td>
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