

Updated 07/18/2023



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

ACADEMIC COOPERATIVE: NASA MINDS

CHEM 2389 001

LARRY BENTON

APRIL ANDREAS

NOTE: This is a 16-week course.

Course Description:

An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual students will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena.

Prerequisites and/or Corequisites:

Course requires consent of instructor. Prerequisites and co-requisites determined according to project proposal.

Course Notes and Instructor Recommendations:

In conjunction with faculty, the individual student will set specific goals and objectives in the study of the physical sciences. The student will demonstrate level-appropriate mastery. The student will work with a faculty member or department-approved professional mentor under the supervision of a faculty member. The student will cooperate in planning and devising his or her responsibilities. The student will meet at regular intervals with the supervisor of record.

Instructor Information:

Instructor Name: Larry D. Benton

MCC E-mail: lbenton@mclennan.edu

Office Phone Number: (254) 299-8195

Office Location: Science Building SB 310 (Third Floor)

Office/Teacher Conference Hours: Monday, Wednesday, and Thursday 4pm-6pm

Instructor Name: April K. Andreas

MCC Email: aandreas@mclennan.edu

Office Phone Number: (254) 299-8130

Office Location: Science Building SB 221 (Second Floor)

Office/Teacher Conference Hours: Online hours Monday 9am-12pm and Wednesday 6pm-8pm then in Office 310 on Tuesday 1-3pm.

Required Text & Materials:

Recommended:

- Additional references may be recommended, depending upon the project.

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

Students will learn through independent research, using textbooks and other available resources, along with directed work and discussions with the instructors and the Principal Investigator at MCC for NASA Minds. Additional methods may be used as opportunities present themselves..

Course Objectives and/or Competencies:

The student will explore and analyze topics within physics to meet student-defined goals, objectives, and research interests in coordination with a Chemistry Department faculty member.

- The student will demonstrate the integration of discipline-specific perspectives with their application in a context outside of the traditional academic classroom.
- The student will demonstrate level-appropriate mastery of applied skills in the designated areas of study.
- The student will develop the ability to work in a faculty-student relationship to set and achieve specific goals in communication, leadership, and/or critical thinking.
- The student and supervising faculty member will define and agree upon plans for communicating and assessing progress and criteria for evaluating the student's work.

Course Attendance/Participation Guidelines:

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date.

Before the 60% point of the semester, a student who is absent for 25% or more of a face-to-face or blended course or who misses 25% or more of assigned work for an online course will be withdrawn from the course with a grade of W. A student may also request to be withdrawn with a grade of W before the 60% point of the semester. After the 60% point of the semester, the student may request to be withdrawn if the student is passing, or be assigned the final grade earned at the end of the semester after grades have been updated to reflect missing work.

Course Outline or Schedule:

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Note the presentation dates for both NASA and MCC, including Scholar Day. The expectation is that you can clear out these specific dates/times since we're giving them to you at the beginning of the semester, but if you know you cannot make these, you must let us know at least two weeks in advance to make other arrangements. ADA accommodations will of course be honored, and other MCC-approved absence policies will apply.

Major NASA Deadlines

Description	Start	End
Teams build and test their projects	Dec 1	March 27
Mandatory One-on-One Microsoft Teams Check-in Calls with the teams. Readiness Review Quiz 2 must be completed prior to call.	Feb 12	March 1
Teams submit project deliverables (Poster, Tech Paper, Project Video)		March 27
Readiness Review Quiz 3 (preparation for live presentation)		April 3
NASA announces finalist teams and notifies finalists of online presentation date and time.		April 24
Live online presentations to NASA Judges for finalist teams	April 30	May 1
LIVE Online Awards Ceremony		May 3

Other Important Dates	Due
January PDR	Wed, Jan 31, 5:30 pm
ePortfolio 1	Thu, Feb 1
ePortfolio 2	Thu, Feb 22
February PDR	Wed, Feb 28, 5:30 pm
ePortfolio 3	Thu, Mar 21
March PDR	Wed, Mar 27, 5:30 pm
Scholar Day	Fri, Apr 19
Team Presentation	Tue, Apr 23
ePortfolio 4	Thu, Apr 26

Course Grading Information:

Your grade from the course will be calculated as follows. Aside from the ePortfolio, all grades are usually team grades. However, in cases of non-participation, including non-participation in NASA presentations, individual grades may be assigned.

Category	Weight
PDRs	15%
Poster & Scholar Day	15%
Special Presentation	15%
Prototype	15%
Video	10%
Final Paper	15%
ePortfolio	15%

Preliminary Design Reviews (PDRs). At end of January, February, and March, the team needs to report on their progress in a formal setting, with PowerPoint and charts to demonstrate their progress. Every person on the team is expected to present and participate. The PDR must last no longer than 15 minutes, with 15 minutes for Q&A.

Scholar Day. The team will create a poster documenting their work consistent with expectations laid out in the NASA MINDS rules handbook and present that poster at Scholar Day.

Special Presentation. The team will present their work in a public setting at Homework Night on the date indicated in the calendar.

Prototype. The team will create a prototype of their solution consistent with expectations laid out in the NASA MINDS rules handbook.

Video. The team will need to provide a link to a YouTube video documenting the design build. The video is solely to assist in the technical evaluation of the project, it will not be judged nor be eligible for awards. The audio (if needed) and video need to be clear and presentable.

Final Paper. The team will create a paper documenting their work consistent with expectations laid out in the NASA MINDS rules handbook.

ePortfolio. Each person will develop an individual ePortfolio to showcase their knowledge and skills gained from this project and from the rest of their experience as an engineering student at MCC. Expectations will be provided at least two weeks prior to each turn-in.

High ranking teams will be selected for a live, online demonstration of their project to a team of NASA Subject Matter Experts. Details for each of these are provided in the NASA Minds Rules Handbook, which is available on the NASA Minds website.

Late Work and Make Up Work Policies:

Team meetings will be held on Mondays and Wednesdays, generally from 5:30 pm – 7:30 pm. If you are not able to make the meetings, you are still expected to contribute to the final product. There is a timesheet linked on Brightspace. You are expected to report your time each week and include a description of the tasks you worked on. Students who consistently fail to attend team meetings and submit their timecard will have a significant point deduction from their final grade.

1 week	Warning
2 weeks	5 pt deduction from final grade
3 weeks	15 pt deduction from final grade
4 weeks	Failure of course (or withdrawal if it occurs before the 60% date)

For the purposes of this class, any week when the timecard is not submitted is considered an absence.

MCC allows for “excused” absences caused by (1) authorized participation in official College functions, (2) personal illness, (3) an illness or a death in the immediate family, or (4) the observance of a religious holy day. It is your responsibility to let me know the reason for an absence the day you return to campus and provide sufficient documentation (doctor’s note, email from coach, etc.).

Student Behavioral Expectations or Conduct Policy:

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

10/09/2023



ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu (254)299-8122
Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>

Additionally, Title IX provides rights and protections for pregnant and newly parenting students. Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email (ast@mclennan.edu) by going to our website (<https://www.mclennan.edu/academic-support-and-tutoring/>)

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing success@mclennan.edu.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to <https://calendly.com/paulannespantry-mcc/15min>.

The CREW, Success Coaches, and Paulanne's Pantry are all located on the second floor of the Student Services building in Success Coaching Services.

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an

emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf

MCC Academic Integrity Statement:

Please view our [Academic integrity statement](#) for more information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/studentemail.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](#)
- [Email Setup for Androids](#)

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.