

Mayville State University

SCNC 480 – Science Comprehensive

Fall 2025

1 Credit Hours

Course and Instructor Information

Instructor Name: Dr. Joseph Mehus

Contact Information:

Office: SB 134

Email: joseph.mehus@mayvillestate.edu

Work phone: 701.788.4802

Hours of Availability:

Monday, Wednesday and Friday: 11am

Tuesday: 10am-2pm by appointment

Instructional Mode: Online asynchronous

Course Dates: August 25 – December 19, 2025

Time Zone: All times indicated throughout this syllabus reflect Central Time (CT).

Course Materials and Technologies

Required

[MSU Technology Requirements](#)

Computer that meets the Technology requirements above

Students will present oral presentations that require use of a computer that meets all the MSU Technology Requirements. A webcam, a microphone, and a reliable internet connection for presentations are required.

Additionally, please familiarize yourself with PubMed, Google Scholar, and the Mayville State University B-Q Library websites to obtain peer-reviewed journal articles to use as materials for your project.

Recommended

Have in mind a faculty member whom you have taken a course with before in your area of specialization (biology/chemistry). A good working relationship with a faculty member will be beneficial.

Use of Artificial Intelligence in this Course

AI will not be used during this course and is not a suitable way for students to answer questions. Use of AI will result in a score of zero for the assignment, and possibly for the course.

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Course Description

A capstone laboratory or non-laboratory project. The project is to be initiated during the first semester of the junior year. The student will work with the faculty member to develop a project, which will culminate in a senior paper and multimedia presentation open to all interested persons. This course should be taken near the end of the major program. Final evaluation of some of the student learning outcomes and essential studies learning outcomes are conducted in this course so this course must be completed only through Mayville State University.

Pre-/Co-requisites: No pre/co-requisites are required, but as stated above, this course should be taken near the end of the major program (preferably last semester).

Course Objectives

A capstone laboratory or non-laboratory project. The project is to be initiated during the first semester of the junior year. The student will work with the faculty member to develop a project, which will culminate in a senior paper and multimedia presentation open to all interested persons. This course should be taken near the end of the major program. Final evaluation of some of the student learning outcomes and essential studies learning outcomes are conducted in this course so this course must be completed only through Mayville State University.

To successfully complete this course, the learner will be expected to meet the following objectives, as aligned to Composite Science Education Program Approval Standards through North Dakota's Education Standards and Practices Board ([ND ESPB](#)):

Learners will identify a faculty member mentor to work with throughout the course.

Learners will produce a highly specific scientific question that they will either pursue the answer for in experimental and/or literature-based research.

Learners will be able to identify and quantify the courses (using specific examples) from their undergraduate program that contributed to the successful completion of their project.

Learners will access peer-reviewed literature (for both literature and experimental) pathways.

Learners will reference all peer-reviewed literature authors, and critically analyze the studies sited.

Learners will provide sufficient background information prior to addressing their scientific question.

Learners will complete a self-assessment of their project addressing critically how their presentation/project meets student learning outcomes.

Learners will provide a comprehensive list of all peer-reviewed journal articles used to include textbooks.

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Learners will present project results that specifically answer their scientific question.

Learners will meet all due dates for items/activities required in this syllabus.

Standards Alignment (Composite Science Education Program Approval Standards-ND ESPB):

- 13047.1 Composite Science Major/General Science The composite/general science program requires that environmental science be incorporated within other courses or as a separate course. The composite/general science program requires:1. Coursework in biology, chemistry, physics, and earth science, including: a. Minimum of twenty four semester hours in one area, b. Minimum of twelve semester hours in two other areas, c. Minimum of four semester hours in the fourth area, d. Courses must be from those that the institution allows toward graduation in the science major. 2. Study of mathematics through the pre-calculus level (college algebra and above) and statistics

Course Expectations

Instructor/Student Communication

Students are accountable for all academic communications sent to their Mayville State University email address. Students should not use outside email for course communications. The instructor is not responsible for emails not received if outside email is used.

Faculty response time can be up to 48 hours during the work week if a specific question is asked (most emails are answered within 24 hours during the week). If no questions are explicitly asked, a response may not be deemed necessary. Emails will not be checked on weekends. An email sent on Friday afternoon may not be responded to until the following Tuesday (if there is a Monday holiday). Please plan accordingly. Any request for an extension REQUIRES a university excused absence and documentation in the initial email. Do not email about an extension without the attached documentation.

Assignments and Assessments

A breakdown of the assignments is provided below in the grading section. Information for each activity/assignment will be provided in Blackboard. Students should expect to work the entire week before an assignment/activity is due, not to try complete it on the due date. Due dates in the syllabus are last days/times to submit materials, not a time to start them. Students can work ahead of schedule to ensure they do not miss due dates. Anything submitted into drop boxes after due dates will not earn points. Activities that require you to converse or communicate with your mentor should be initiated at least 3 days prior to the due date to ensure the mentor has time to respond. It is the student's responsibility to reach out and initiate communication with their mentor. If the mentor does not respond, students should follow up at least 24 hours before the due date.

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Evaluation and Grading

Grading Policies

Activities and dropbox submissions can expect a two-week turnaround time for grade submissions. Late submissions into drop boxes will be accepted, however, points for drop boxes can ONLY be earned if submitted by due dates. Because the due dates are provided in the syllabus at the start of the course and students can work ahead of the schedule, no points will be earned for late submissions. This is not a project that you will be able to complete in the last 2 weeks of the semester.

Attendance/Participation Policies

Students must submit completed items into their appropriate drop boxes even if late and no points earned.

Grading Scale

Grades (%): 90-100 A

80-89 B

70-79 C

60-69 D

< 60 F

Breakdown of Grades

Activities: Activities are each worth 5 points except for journal article submissions which are worth 10 points. There are 80 total points that can be earned from activities.

Written Paper: The written paper will be graded using the following criteria: proper grammar, punctuation, and formatting. Any statements made that are not scientifically proven or are incorrect will result in a loss of points. Students should refrain from putting in/or making any statements based off their “opinions.” Science is based off experimentation and data. Hypotheses are formed from data/results/analysis. The written portion of the course is worth 100 points. A rubric will be provided to students at the start of the course outlining how points can be earned. Points for this section will be determined by the instructor alone.

Oral Presentation: The oral presentation of this project will be graded following the rubric provided in Blackboard. Each individual (faculty) at the oral presentation will provide the instructor with a completed rubric that they will fill out during the presentation. All scores will be combined and averaged to determine points earned for the oral presentation. Upon request, students can see the matrices for the faculty present. Matrices will not include faculty name. The oral presentation has the potential to earn up to 120 points.

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Enrollment Verification

Online Course Statement

The U.S. Department of Education requires instructors of online courses to provide an activity which will validate student enrollment in this course. The only way to verify that a student has been in this course is if he, she, or they perform an action in the LMS, such as completing an assignment(s) or taking a quiz. Logging into the LMS is **NOT** considered active course participation. Please complete the designated enrollment verification activities by the date indicated. If it is not complete your enrollment in this course will be at risk.

Proctor Notification

No proctors are required for this course.

Important Student Information

In the Announcements section of the Blackboard Institution Page, you can view and download the Important Student Information document for the current academic year. It includes information about:

- ✓ Land Acknowledgement Statement
- ✓ Academic Grievance Concerns and Instructor English Proficiency
- ✓ NetTutor - Online Tutoring Program
- ✓ Starfish - Student Success System
- ✓ Students with Documented Disabilities
- ✓ Student Learning Outcomes / Essential Learning Outcomes
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement (Title IX)

Course Timeline/Schedule

This schedule is tentative and may be changed by the instructor at any time during the course. All due dates end at 5pm CST on the dates listed below. Enrollment verifications must be completed before any coursework folders open. Online students are allowed to work ahead of deadlines. Once work for a chapter is completed, the next section will open. If something does not open, please let the instructor know immediately. Quizzes may also be referenced as chapter questions.

Topic	Due Date	Required Item Checklist
Enrollment Verification	9/2/25	Enrollment Verifications

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Identification of Scientific Interest	9/9/25	<input type="radio"/> Activity
Identification of Broad Scientific Question	9/16/25	<input type="radio"/> Activity
Identification of Faculty Mentor	9/23/25	<input type="radio"/> Activity
Identification of Specific Scientific Question	9/30/25	<input type="radio"/> Activity
Identification of Specific Science Course Materials/Content	10/7/25	<input type="radio"/> Activity
Drop Box for First set of 5 Peer Reviewed Journal Articles with Justification for their use. Explanation needed, not abstracts	10/14/25	<input type="radio"/> Activity
Drop Box for Second set of 5 Peer Reviewed Journal Articles with Justification for their use. Explanation needed, not abstracts	10/21/25	<input type="radio"/> Activity
***Drop Box for Third set of 5 Peer Reviewed Journal Articles with Justification for their use. Explanation needed, not abstracts	10/28/25	<input type="radio"/> Activity
Drop Box for Fourth set of 5 Peer Reviewed Journal Articles with Justification for their use. Explanation needed, not abstracts	11/4/25	<input type="radio"/> Activity
Outline for Presentation & Paper	11/11/25	<input type="radio"/> Activity
Proof of Paper to Writing Center & Confirmation of Mentor Review of PPT	11/18/25	<input type="radio"/> Activity
Student Self-Assessment with documentation of Student Learning Outcomes	11/25/25	<input type="radio"/> Activity
Oral Presentation	12/2/25 Or 12/4/25	<input type="radio"/> Oral Presentation open to all interested parties