CHEM 330L: Quantitative Analysis I Lab - 1 credit

Instructor: Dr. Thomas Gonnella ← please address me as "Dr. Gonnella"
Office: SB 124B
Office Phone: (701) 788-4807
Cell Phone: (701) 371-1874 (academic emergencies only)
Email: tom.gonnella@mayvillestate.edu
Hours of availability: E-mail account is checked quite frequently – check schedule on office door
LMS for this course: Blackboard
Instruction Mode: Face-to-face (on-campus)
Time zone: All times indicated throughout this syllabus reflect Central Time (CT)
Class Meeting Time: 8:00-9:50 Tuesday mornings in SB 124

Required Text: None, written laboratory documentation will be provided.

Course Description: This course involves performing laboratory activities based on the topics of analytical processes, error analysis and statistics, chemical equilibrium and chemical activity, acid-base chemistry, complex formation and equilibrium, and various types of spectroscopy.

Purpose of the Course: This course is designed to provide students with the skill set necessary to work in a quantitative chemical analysis laboratory.

Course Objective (as aligned to Composite Science Education Program Approval Standards through North Dakota's Education Standards and Practices Board): The Chemistry 330L course is designed to compliment the Chemistry 330 lecture course and provide the students with hands-on experience in performing quantitative analysis.

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
- 13047.3 Inquiry The program requires study of the processes of science common to all scientific fields.

Expectations/Protocols:

Enrollment Verification: 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 or she takes an *action* in Blackboard, such as completing an assignment or a taking a quiz. Logging into Blackboard is **NOT** considered attendance. For this course students need to simply show up to class the first week

Communication: The Instructor's preferred method of contact is e-mail or an office visit (SB 124B). Students are accountable for all academic communications sent to their Mayville State University e-mail address. It is the responsibility of each student to check and maintain their own their e-mail accounts throughout the day so the information sent by the instructor can be received in a timely manner.

Lab work: Lab work is due before the beginning of the next laboratory experiment but late submissions will be excepted up to the end of that same day. Questions regarding the labs will answer up to one hour prior to the beginning of the next laboratory experiment. The lab work submitted to the

instructor will be evaluated based on data compiled, the data analysis performed, and the quality of the documentation provided.

Proctor Notification: A proctor is not needed for this course.

Method of Evaluation:	Labs reports and other lab documents	100%
Grading:	A > 90% B > 80% C > 70% D > 60%	

It is the responsibility of the instructor to post lab scores to the students in a timely manner (one week afterward). It is the responsibility of the students to continuously monitor their academic performance throughout the semester.

Late Arrivals: The deadlines for students adding this course after the first day of instruction will remain the same as students that were enrolled before or on the first day of class.

Academic Dishonesty: Academic dishonesty in this lab course will not be tolerated. Academic dishonesty in this course may consist of fabrication of data, allowing someone else to copy your work, and submitting someone else's work as your own.

English Proficiency and other Academic Concerns: The North Dakota State Board of Higher Education in North Dakota requires that all faculty members and teaching assistants in the NDUS have appropriate communications skills, including the ability to speak English clearly and with good pronunciation. Students who experience problems have the following obligation:

1. Discuss the situation with the instructor first to see if a resolution can be reached.
2. If the problem is still not resolved with the instructor, contact the instructor's Division Chair for assistance.
3. If the situation is still not resolved, the matter should be brought to the attention of the Vice President for Academic Affairs.
4. In the unlikely event that the situation has not been resolved through this procedure, students may contact the President of the University for final resolution.

Students with Documented Disabilities: As required by Section 504 of the Rehabilitation Act and the ADA, appropriate and reasonable accommodations will be made for all students with documented disabilities (LD, Orthopedic, Hearing, Visual, Speech, Psychological, ADD/ADHD, Health-Related, & Other) who request those accommodations to ensure full access to the academic opportunities of Mayville State University. In order to receive services, students must disclose their disabilities, request accommodations and provide documentation showing necessary accommodations to the Director of Student Success and Disability Support Services, Katie Richards (katie.richards.2@mayvillestate.edu). Any information shared will remain confidential.

Emergency Notification: The State Board of Higher Education requires that all faculty in the NDUS adhere to SBHE Policy 1902 regarding the emergency notification system. For this course the students are expected to have their "NotiFind" registered cell phones on to receive emergency notifications.

Continuity of Academic Instruction for a Pandemic or Emergency: In the event of a major campus emergency resulting in temporary suspension of classes or early ending to the semester, the course requirements, deadlines, and grading percentages on the official syllabus are subject to change. The instructor will notify the students of such changes by email or Blackboard.

Family Educational Rights and Privacy Act of 1974 (FERPA): In compliance with the Family Educational Rights and Privacy Act of 1974, Mayville State University has information available regarding student and graduation records it maintains, see http://mayvillestate.smartcatalogiq.com/2020-2022/2020-2022-Academic-Catalog/Student-Services/Family-Education-Rights-and-Privacy-Act-of-1974

Starfish: Starfish is Mayville State's Early Warning System that the faculty and staff use to report feedback on your academic performance or lack of action on required course activities. If you receive a Starfish

notification (will be sent to your @mayvillestate.edu email from Director of Student Success), please read it immediately – it will contain important information for you.

A more generic version of these last seven policies is available in the MaSU Important Student Information document on the My MASU page in Blackboard.

Tentative Schedule for CHEM 330L: Quantitative Analysis I Lab

Date(s)	Activity
08/26 to 09/02	Exp 1: Propagation of Error Lab
09/02 to 09/16	Exp 2: Conductivity of Magnesium Chloride & Error Analysis
09/16 to 09/30	Exp 3: Statistical Analysis of Pennies
09/30 to 10/14	Exp 4: Chloride Analysis via Ion-Selective Electrode
10/14 to 10/28	Exp 5: Chloride Analysis via Argentometric Titration
10/28 to 11/11	Exp 6: Chloride Analysis via Silver Electrode
11/11 to 11/25	Exp 7: Mello Yellow Analysis via UV-Vis Spectroscopy
11/25 to 12/9	Exp 8: Mello Yellow Analysis via High-Pressure Liquid Chromatography