

MTH 112
Calculus II
Spring 2021
COURSE SYLLABUS

INSTRUCTOR: Dr. Brent Young
OFFICE: SLC 406
EXTENSION: 3824
E-MAIL: brent.young@wilkes.edu
WEBPAGE: <http://young.mathcs.wilkes.edu/courses/courses.html>
OFFICE HOURS: ONLINE BY APPOINTMENT

REQUIRED MATERIAL: MyLab Math Student Access Kit,
Pearson,
a) ISBN: 978-0-13-5183717 (24 month access)
OR
b) ISBN: 978-0-13-5910993 (18 week access)

OPTIONAL MATERIAL: *University Calculus, Early Transcendentals 4th ed.*,
Hass, Heil, Bogacki, Weir, and Thomas,
Pearson,
ISBN: 978-0-13-499554-0.
(An online version of the textbook is available through MyLab Math.)

CLASS MEETINGS:

Section	Meeting Times	Classroom
A	MTWRF 8 - 8:50am	SLC 275
B	MWRF 9 - 9:50am T 4 - 4:50pm	SLC 275
C	MTWRF 1 - 1:50am	SLC 275

PREREQUISITES: Students in this course must have successfully completed MTH–111 (Calculus I) with a grade of 2.0 or better.

COURSE DESCRIPTION (from the Bulletin): A continuation of MTH–111. Topics include inverse functions, techniques of integration, applications of the integral, and infinite sequences and series.

DETAILED OBJECTIVES: Upon completion of this course, the student will have achieved the following objectives:

- The student will show an understanding of various techniques of integration including substitution, integration by parts, trigonometric substitution, and partial fractions.
- The student will have the ability to use definite integrals in various applications including computation of volume, lengths of a curve, surface area, work, moments, and center of mass.
- The student will show an understanding of trigonometric functions (including their inverses) and the calculus of such functions.
- The student will show an understanding of improper integrals and the numerical approximation techniques of definite integrals.
- The student will have the ability to solve separable and linear first-order differential equations.
- The student will have an understanding of the convergence or divergence of infinite sequences and infinite series. The student will have the ability to apply the techniques of direct comparison, limit Taylor series, binomial series, and the concepts of conditional and absolute convergence.
- The student will have the ability to articulate his or her solutions to such problems in both oral and in particular written form, through selected homework problems, in-class discussions, and examination questions.

GRADING: Four 50-minute midterm exams and a cumulative final exam will be given. In addition, MyLab Math (MML) assignments and in-class quizzes will be given regularly. Your raw score will be computed as follows.

ITEM	Max. Pts.
MML Assignments	50
Quizzes	50
Highest Midterm Exam Grade	100
Middle Two Midterm Exam Grades	85 each
Lowest Midterm Exam Grade	80
Final Exam	150
TOTAL	600

Your final grade will be determined from your raw score as follows:

Raw Score	0 to 359	360 to 389	390 to 419	420 to 449	450 to 479	480 to 509	510 to 539	540 to 600
Grade	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0

REVIEW SESSIONS: Most Friday classes will be review sessions. There will be roughly 30 minutes for you to ask any questions from previous lectures and homework assignments. There will then be a 15 – 20 minute quiz at the end of the class.

ACADEMIC INTEGRITY:

- The work you hand in should be your own work. If you receive help from any source, that help must be acknowledged in writing and turned in with the assignment. If there is evidence that work you hand in is not your own, the first time you will receive a zero on the work and the second time you will receive a zero for the course grade. Appropriate deans will also be notified.
- **THE USE OF CALCULATORS, CELL PHONES, OR ANY OTHER ELECTRONIC DEVICES DURING QUIZZES AND EXAMS IS EXPRESSLY FORBIDDEN. USE OF SUCH DEVICES WILL BE CONSIDERED CHEATING, AND THE PENALTIES DESCRIBED ABOVE WILL APPLY.**

MAKE-UP EXAMS: **Make-up examinations will not be given during the semester.** If a student has a genuine, documented emergency that results in missing an exam, a make-up exam can be scheduled during the week of finals.

WITHDRAWAL: All withdrawals must take place **prior to the 10th week of class** unless extreme circumstances exist. Please refer to the Undergraduate Bulletin for official school policies regarding attendance and withdrawal, as all such policies will be enforced.

ATTENDANCE: Attendance will be closely monitored in this course. Five or more unexcused absences will result in the student being removed from the course. **Remember that poor attendance is a major contributor to poor performance!**

Statement on COVID-19 Policies: Students who are experiencing symptoms related to COVID-19, or who are engaging in quarantine at the direction of the Wilkes-Barre Health Department, Wilkes University Health and Wellness Services Office, or their health care professional, should not attend class. They will not be required to provide formal documentation from a health care provider and will not be penalized for absences, missed exams, labs or other critical academic activities, unless they fail to notify their instructors of their absences. Students must take responsibility for their absences and keeping up with their coursework if they cannot attend class. They must:

- Inform their instructors/professors and Student Affairs of their inability to attend class prior to class meetings.
- Refrain from coming to the classroom or visiting the instructor/professor.
- Maintain open communication by notifying instructors and student Health and Wellness Services (anita.burns@wilkes.edu, 570-408-4730) as soon as they become aware of the situation.
- Keep up with classwork, unless they are unable to do so.
- When available, attend class remotely and submit assignments digitally, unless they are unable to do so.
- Work with their instructors to reschedule exams, labs, and other critical academic activities as soon as possible.

Additionally, students who are unable to access classes remotely due to technical difficulties will not be penalized for absences. Students must inform their instructors/professors when they experience such difficulties. If remaining in a class and fulfilling the necessary requirements becomes impossible due to extended illness or other COVID-related circumstances, students must discuss other options with their academic advisors and instructors/professors.

This policy should not be arbitrarily applied. It only applies to students experiencing COVID-related challenges and is in place due to the unique circumstances of this global pandemic. The expectation of regular attendance at class remains in place for the spring 2021 semester.

TOPICS COVERED:

CHAPTER	SECTIONS	Topics
5	5, 6	Substitution, Area Between Curves
6	1, 2, 3, 4, 5, 6	Applications of Integration
7	1, 2, 3	Transcendental Functions
8	1, 2, 3, 4, 6, 7	Techniques of Integration
–	–	Continuous Probability
9	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Infinite Series and Sequences
16	1, 2	First Order Differential Equations