



North Central State College

MASTER SYLLABUS

2026-2027

- A. Academic Division: Liberal Arts
- B. Discipline: Mathematics
- C. Course Number and Title: MATH1151 Calculus II
- D. Assistant Dean: Laura Irmer, MFA, MA
- E. Credit Hours: 5
- F. Prerequisites: MATH1150 (Minimum grade of C- required)
- G. Last Course/Curriculum Revision Date: Fall 2023 Origin date: 06/08/2011
- H. Textbook(s) Title:
Calculus II w/Desmos (OHM Bundle) Access Code
 - Author: Lumen Learning
 - Copyright Year: 2024
 - Edition:
 - ISBN #9781640873629
- I. Workbook(s) and/or Lab Manual:
TI-84 Calculator recommended ISBN #8780000100116 *Check with instructor on calculator options
- J. Course Description: This course is a continuation of MATH1150 Calculus I. Topics include integration and applications, calculus of exponential and logarithmic functions, hyperbolic functions, methods of integration, integration by parts, indeterminate forms and L'Hôpital's Rule, moments and centers of mass, fluid pressure and force, integration techniques, series including Taylor and Maclaurin, calculus of conics, calculus of parametric equations, and polar forms of conic sections including Kepler's Laws. This course meets the requirements for OTM Calculus II TMM006. If combined with MATH1150, it meets the requirements for OTM Calculus I & II sequence TMM017.

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Employ a variety of integration techniques to evaluate special types of integrals and apply to physical, biological or economic situations.	Homework, Tests, Final Exam Throughout the term.
2. Approximate a definite integral by the Trapezoidal Rule.	Homework, Tests, Final Exam Early in the term.
3. Evaluate limits that result in indeterminate forms, including the application of L'Hôpital's Rule.	Homework, Tests, Final Exam Middle of the term.
4. Evaluate improper integrals.	Homework, Tests, Final Exam Late in the term.
5. Find, graph, and apply the equations of conics.	Homework, Tests, Final Exam Late in the term.
6. Determine the existence of, estimate numerically and graphically, and find algebraically the limits of sequences and determine whether a series converges.	Homework, Tests, Final Exam Late in the term.
7. Find the nth Taylor polynomial at a specified center for a function and estimate the error term.	Homework, Tests, Final Exam Late in the term.
8. Analyze curves given parametrically and in polar form and find the areas of regions defined by such curves.	Homework, Tests, Final Exam Late in the term.
9. Solve separable differential equations and understand the relationship between slope fields and solution curves.	Homework, Tests, Final Exam Middle of the term.

M. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70–72	C-	1.67	Average
67–69	D+	1.33	Below Average
63–66	D	1.00	Below Average
60–62	D-	0.67	Below Average
00–59	F	0.00	Failure

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences.

Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at

<https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf>



North Central State College
SYLLABUS ADDENDUM

Academic Division:	<u>Liberal Arts</u>	Discipline:	<u>Mathematics</u>
Course Coordinator:	<u>Sara K. Rollo</u>		
Course Number:	<u>MATH 1151 – 921B</u>	Course Title:	<u>Calculus II</u>
Semester / Session:	<u>Fall 2026 Session B</u>	Start / End Date:	<u>October 19th – December 11th</u>

Instructor Information

Name:	<u>Pamula (Pam) Robison</u>	Credentials:	<u>BA Mathematics / MS Applied Mathematics</u>
Phone Number:	<u>419-755-4525</u>	E-Mail Address:	<u>probison@ncstatecollege.edu</u>
	Online at		Mondays 10am – 2pm Kehoe 134
Office Location:	<u>OFFICE HOUR or Kehoe 134</u>	Office Hours:	<u>Wednesdays 11am – 12pm noon Online</u>

I. Topical Timeline (Subject to Change):

MATH 1151	Day 1 – Tuesday	Day 2 – Friday
Week 1 Tuesday, October 20 th Friday, October 23 rd *(LU) means Lumen *(CA) means Canvas	Complete Assignment: Syllabus Quiz (CA) Introductions! (CA) Topic 1 HW Due (LU) Outcomes/objectives: Differentiate and integrate natural logarithmic, exponential, inverse trigonometric, and hyperbolic functions, and their inverses	Complete Assignment: Test Topic 1 Due (LU) Response to Introductions (CA)
Week 2 Tuesday, October 27 th Friday, October 30 th	Complete Assignment: Topic 2 HW Due (LU) Outcomes/objectives: Interpret and use slope fields in mathematical situations, solve differential equations involving growth and decay, solve by using separation of variables and solve first-order linear and non-linear differential equations	Complete Assignment: Test Topic 2 Due (Lumen) Reflection #1 (CA)
Week 3 Tuesday, November 3 rd Friday, November 6 th	Complete Assignment: Topic 3 HW Due (LU) Outcomes/objectives: Find the area of a region between two curves, find the volume using both the disc and shell methods	Complete Assignment: Topic 4 HW Due (LU) Outcomes/objectives: Find arc length and surface of revolutions of a function, solve problems involving work, fluid pressure and fluid force and find centers of mass
Week 4 Tuesday, November 10 th Friday, November 13 th	Complete Assignment: Test Topics 3 and 4 Due (LU) Reflection #2 (CA)	Complete Assignment: Topic 5 HW Due (LU) Outcomes/objectives: Learn and use integration by parts, integrate trigonometric functions, and integrate using trigonometric substitution
Week 5 Tuesday, November 17 th Friday, November 20 th	Complete Assignment: Topic 6 HW Due (LU) Outcomes/objectives: Integrate using partial fraction decomposition, find integrals by numerical integration, use L'Hopital's Rule for indeterminate forms, and integrate improper integrals	Complete Assignment: Test Topics 5 and 6 Due (LU) Reflection #3 (CA)

Week 6 Tuesday, November 24th Monday, November 30th Technically, the Monday belongs in Week 7, but it is too much trouble messing with the grid. 	Complete Assignment: Topic 7 HW Due (LU) Outcomes/objectives: Learn sequences, determine the convergence of a series, and use the integral test and p-series to determine convergence	Complete Assignment: Topic 8 HW Due (LU) Outcomes/objectives: Compare series to find convergence, determine convergence for alternating series and by the ratio and root tests
Week 7 Monday, November 30th (see right, in row above) Tuesday, December 1st Friday, December 4th	Complete Assignment: Topic 9 HW Due (LU) Outcomes/objectives: Use Taylor polynomials to approximate an elementary function, represent functions by power series, and find the convergence of Taylor and Maclaurin series	Complete Assignment: Test Topics 7, 8 and 9 Due (LU) Reflection #4 (CA)
Tuesday, December 8th Friday, December 11th	Complete Assignment: Topic 10 HW Due (LU) Outcomes/objectives: Graph conics, plane curves that are expressed as parametric equations, review polar coordinates and polar functions and their equations, find the area and arc length of problems in polar form and find polar forms of conic sections	Complete Assignment: Final Exam Due (LU)

II. Course Assignments:

1. Quizzes (if assigned)
2. Tests
3. Homework
4. Final Exam

III. Grading and Testing Guidelines:

Activity	Found on	Number of Items	Points per Item	Total Points	Percentage
Homework	Lumen	10	20	200	20%
Syllabus Quiz	Canvas	1	12	12	1.2%
Tests	Lumen	5	100	500	50.0%
Discussions	Canvas	1	14	14	1.4%
Reflections	Canvas	4	6	24	2.4%
Final Exam	Lumen	1	250	250	25.0%
Total				1000	100.0%

IV. Examination Policy:

The tests and exam will be found on Lumen. The time limit for each test will be 150 minutes (2.5 hours). The time limit for the Final Exam will be 180 minutes (3 hours). Each test is over the preceding Topics and is worth 125 points. The Final Exam is worth 250 points and is cumulative, meaning it covers the entire course. You have just ONE attempt at each test and exam. All work on the exam and tests is to be independent, involving no other people, no other websites or software but you, Lumen, your written notes, and your graphing calculator.

Because I normally grade the work for partial credit, you are to turn in your scratch work onto Canvas (not LUMEN) under the test or exam that it falls under. You can simply take a picture of your work and upload it to Canvas. Please number your problems and organize it so that I can follow it easily. Turning in your scratch work will give you chances for partial credit and will aide me in giving better feedback. Also, there are some problems that ask you to work it using a specific method. Please submit your scratch work to Canvas (not Lumen) as soon as you can after taking the test. I expect it within 15 minutes of taking the test.

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IF YOU DO NOT TURN IN YOUR SCRATCH WORK, YOU WILL RECEIVE A ZERO FOR THE ASSIGNMENT UNTIL I GET YOUR SCRATCHWORK. IF YOU LOSE YOUR SCRATCHWORK, THEN YOU WILL GET AN OPTION TO RETAKE THE TEST, BUT LOSE 25 POINTS OFF YOUR SCORE FOR THE EXTRA WORK AND TIME WASTED.

All work on the exam and tests is to be independent, involving no other people, no A.I. of any kind, no other websites or software or videos but you, Lumen, your written notes, and your graphing calculator.

V. Class Attendance and Homework Make-Up Policy:

All assignments are open and available on the first day of class but are to be completed by their due date. Due dates are listed both on Canvas and on Lumen. Canvas will be where you check your grade, not on Lumen.

The following information is needed for registering onto LUMEN:

Course ID: 100283

Enrollment Key: Calculus 2 3576

Course Name: MATH 1151-Calculus II FA 26 PR

Class attendance is not part of your grade. It is however something we keep track of for various college purposes, so a lack of activity online for a week or more will constitute an absence, and I will try to contact you.

Homework sections are worth 20 points. I calculate these by taking the percentage, dividing it by 100, then multiplying that by twenty. I will round that answer to the nearest point.

The deadlines for homework will be found on Canvas as well as Lumen. Assignments are open from the first day of class, and there is no time limit per assignment, and you can have multiple attempts, but they must be completed by the due date. If you miss a homework assignment, you must contact me to open it again.

There are also reflection and discussion assignments and a syllabus quiz found on Canvas only. These must be completed.

Updated grades are found on Canvas, not on Lumen.

VI. Classroom Expectations:

The notes and videos are posted in the homework assignments on Canvas. Lumen also has resources that you can utilize. My notes and videos are not for a grade; they are there to help guide you along the way. Please reach out to me if you have particular questions on homework that my videos have not been helpful with, and I will try to create new videos for those questions.

Students that want to contact me directly for questions or assistance can email me at probison@ncstatecollege.edu or make an appointment with me on Zoom. The website for me specifically on Zoom is [OFFICE HOUR](#). You must contact me via email or Canvas to set up an appointment with me on Zoom, one that we can both agree on. Zoom allows us to see each other and talk to each other rather than writing or texting. I can answer questions live and walk you through a problem or two if that is what you would like.

Tutoring is available online too. Find the button on the main page to check it out!

My personal goal is to grade assignments I have collected within one week and to reply to messages and emails within 48 hours.