



CHIPOLA COLLEGE

COURSE SYLLABUS

Chipola's website: www.chipola.edu

COURSE TITLE:

Calculus and Analytic Geometry III

COURSE NUMBER:

MAC 2313

COURSE DESCRIPTION (with prerequisites):

This course includes the study of lines, planes and surfaces in space; functions of several variables; partial derivatives of functions of several variables; extrema of functions of two variables; iterated integrals using rectangular, polar, cylindrical, and spherical coordinates; differentiation, integration, and applications of vector-valued functions; vector fields and calculations of line integrals and flux integrals, the use of Green's Theorem, Divergence Theorem, and Stoke's Theorem. Prerequisite: A "C" grade or higher in MAC 2312. A "C" grade or higher must be earned to advance to a higher-level mathematics course or to satisfy part of the general education requirement in mathematics. 4 semester hours credit.

NAME(S) OF INSTRUCTORS:

Stan Young, M.Ed.
Assistant Professor
youngs@chipola.edu
850-718-2336

EFFECTIVE ACADEMIC YEAR:

2023-2024

REQUIRED TEXTBOOKS AND INSTRUCTIONAL MATERIALS:

Larson, Ron and Edwards, Bruce H. *Calculus*. 11th Edition. Cengage Learning. 2018.

REQUIRED:

Enhanced WebAssign Printed Access Card for Calculus, Multi Term Courses
ISBN: 9781337652650

OR

Text + Enhanced WebAssign Homework and eBook LOE Printed Access Card for Multi Term Math and Science ISBN-13: 9781337604741

GRADING POLICY:

The standing of a student in each course is expressed by one of the following letters and corresponding grading system:

A – 90 – 100

B – 80 – 89

C – 70 – 79

D – 60 – 69

F – 59 or less

The Chipola Catalog provides policies and procedures regarding the grading system. A student's Grade Point Average is derived from the grading system/quality point scale.

ATTENDANCE AND WITHDRAWAL POLICIES:

Chipola College expects regular attendance of all students and for all instructors to record attendance daily. Students who are absent from classes for any reason other than official college activities must satisfy the instructor concerned that the absence was due to illness or other clearly unavoidable reasons. Otherwise, the student may suffer grade loss at the discretion of the instructor. Chipola policy allows each instructor to specify in the Instructor First Day Handout whether or not an absence is excusable and what effect the absence or tardy may have on the grade.

A student is allowed to repeat a course a maximum of three (3) times. **On the third attempt a student (1) must bear the full cost of instruction (unless waived by Student Services), (2) cannot withdraw, and (3) must receive a grade.**

MAKE-UP POLICY:

Chipola allows each instructor to specify in the Instructor First Day Handout the makeup policy.

ACADEMIC HONOR CODE POLICY:

Students are expected to uphold the Academic Honor Code, which is based on the premise that each student has the responsibility to (1) uphold the highest standards of academic honesty in his/her own work; (2) refuse to tolerate academic dishonesty in the college community; and (3) foster a high sense of honor and social responsibility on the part of students. Further information regarding the Academic Honor Code may be found in the Chipola Catalog, Student Governance section.

STUDENTS WITH DISABILITIES POLICY:

Chipola College is committed to making all programs and facilities accessible to anyone with a disability. Chipola's goal is for students to obtain maximum benefit from their educational experience and to effectively transition into the college environment. Students with disabilities are requested to voluntarily contact the Office of Students with Disabilities to complete the intake process and determine their eligibility for reasonable accommodations.

NOTICE OF EQUAL ACCESS/EQUAL OPPORTUNITY AND NONDISCRIMINATION:

Chipola College does not discriminate against any persons, employees, students, applicants or others affiliated with the college in regards to race, color, religion, ethnicity, national origin, age, veteran's status, disability, gender, genetic information, marital status, pregnancy or any other protected class under applicable federal and state laws, in any college program, activity or employment.

Wendy Phippen, Associate Vice President of Human Resources, Equity Officer and Title IX Coordinator, 3094 Indian Circle, Marianna, FL 32446, Building A, Room 183C, 850-718-2269, pippenw@chipola.edu.

LIBRARY AND ON-LINE REFERENCE MATERIALS:

The library is a comprehensive learning resource center providing information in print, electronic, and multimedia format to support the educational objectives of the College. On-line catalogs, e-books, and electronic databases can be accessed through the Library Resources link within your course in Canvas or by using the *Search* icon on the Chipola Library website at www.chipola.edu/library. If you have questions about database usage, consult the “How to Use the Chipola Databases” on the Library website or call the Library at 850/718-2274 during regular hours. Library hours are posted each semester at the building entrance and on the Library website. See your Instructor First Day Handout for individual instructor recommendations and resources.

TECHNOLOGY RESOURCES:

The college’s learning management system is **Canvas**. Classes become available on Canvas on the first day of the semester. It is the student’s responsibility to log onto the Canvas system the first day of class to establish the first day of attendance and to check announcements. All official class communication must be through Canvas. For further information, contact your instructor or the Director of Learning Resources. The Canvas support hotline is available online in live chat and on the phone, toll-free, at 855-308-2812 for any issues utilizing Canvas. The **Technology Center**, located in the library, is equipped with computer workstations. Lab hours are posted each semester at the building entrance and on the Library website.

FREE TUTORING RESOURCES:

The Academic Center for Excellence (ACE) Lab, located in Building L, offers free tutoring from 8 a.m. to 5 p.m. and is equipped with computer workstations. ACE Lab hours are posted each semester at the room entrance and on the website. Additionally, live online tutoring conferences and individual tutoring sessions are available for a variety of courses through ACE @ Home. For a conference schedule or to schedule an individual appointment, visit “ACE Tutoring” in the left navigation from any course in Canvas.

ELECTRONIC DEVICE USAGE STATEMENT:

Classrooms should be free of all unnecessary distractions from the task of learning. Therefore, as a general rule, students should silence and avoid use of all electronic devices (laptops, phones, tablets, etc.) not being used for coursework. Consult first-day handouts for any specific policies related to the use of electronic devices in the classroom, as they may vary depending upon the nature of the course or the guidelines of the instructor. Faculty reserve the right to regulate the use of electronic devices and their accessories in class.

DISCIPLINE SPECIFIC COMPETENCIES / LEARNING OUTCOMES:

Area 3 -Math: Demonstrate Basic Mathematical Skills and Knowledge

The purpose of the mathematics component of the core curriculum is to develop quantitative literacy with an ability to apply basic mathematical tools in the solution of real-world problems.

M-1 Solve mathematical problems by using arithmetic, algebraic, or geometric skills.

M-2 Translate basic mathematical information verbally, numerically, graphically, or symbolically.

M-3 Solve mathematical problems using appropriate technology.

M-4 Interpret mathematical models such as formulas, graphs, tables, or schematics.

M-5 Solve contextual problems using mathematical processes.

Linking Course-level Student Learning Outcomes with Discipline-Specific Competencies, Assessment Methods, and Artifacts		
COURSE-LEVEL STUDENT LEARNING OUTCOMES FOR MAC2313	DISCIPLINE-SPECIFIC GENERAL EDUCATION COMPETENCIES	ASSESSMENT METHODS FOR COURSE LEVEL STUDENT LEARNING OUTCOMES (see Notes below)
<ul style="list-style-type: none"> Identify properties of curves and common surfaces in space 	M1, M-2, M-4	UT, CF, H
<ul style="list-style-type: none"> Determine derivatives and integrals of vector-valued functions 	M-1, M-2, M-4	UT, CF, H
<ul style="list-style-type: none"> Solve application problems involving vector-valued functions 	M-1, M-2, M-3, M-4, M5	UT, CF, H
<ul style="list-style-type: none"> Determine the continuity of multivariable functions 	M-1, M-4	UT, CF, H
<ul style="list-style-type: none"> Calculate limits of multivariable functions 	M-1, M-2, M-3	UT, CF, H
<ul style="list-style-type: none"> Find partial derivatives, directional derivatives, and gradients of multivariable functions 	M-1, M-2, M3, M-4	UT, CF, H
<ul style="list-style-type: none"> Solve optimization problems involving multivariable functions 	M-1, M-2, M-3, M-4, M-5	UT, CF, H
<ul style="list-style-type: none"> Solve application problems using the chain rule 	M-1, M-2, M-3, M-5	UT, CF, H
<ul style="list-style-type: none"> Evaluate iterated integrals using rectangular, polar, cylindrical, and spherical coordinates 	M-1, M-2, M-4	UT, CF, H
<ul style="list-style-type: none"> Examine the properties of vector fields 	M-2, M-4	UT, CF, H
<ul style="list-style-type: none"> Evaluate line integrals and flux integrals 	M-1, M-2, M-4, M-5	UT, CF, H

Notes: Assessment Codes

BO - Behavioral Observation
Cap Proj - Capstone Course
CF - Cumulative Final
Clin - Clinicals
CP - Case Plan
CS - Case Study
DB - Discussion Board
DE - Documented Essays
E - Essays

EX - Dept Exam
Exp - Experiments
F - Final Exam
H - Homework
Intern - Internship
J - Jury
JP - Judged Perf/Exh
Obs - Teacher Observ
OT - Objective Tests

Port - Portfolio
Prac - Practicum
Pre/ Post - Pre-/Post-Tests
Proj - Projects
PS - Problem Solving
Q - Quizzes
R - Recital
RP - Research Papers
RPT - Report/Presentation

SD - Skills Demonstration
SE - Natl or State Standardized
Sk - Ck Skills Check-Off
SP - Skills Performance
T - Tests
UT - Unit Tests
W - Writing Assignments

MEANS OF ACCOMPLISHING STUDENT LEARNING OUTCOMES:

Teacher Facilitated: The teacher will be leading class discussions on the material contained in the text during each class period.

Student-centered: The students will take notes and practice solving problems during each class period.

Office Hours: The instructor will be available during office hours for individual assistance. The instructor's schedule can be found posted on their office door and/or via their Canvas course.

ACE Lab Tutors: Student tutors are available in the lab to provide individualized help. Hours can be found posted each semester on the lab door and/or via the web site.

ASSIGNMENT AND/OR COURSE OUTLINE

See your Instructor First Day Handout for individual instructor assignment schedule.