M 172-001: Calculus II (4 credits) Location and Meeting Times: LA 512; M 9:20-10:20 and TR 8:40-10:10 Instructor Information: Don Gayan Wilathgamuwa LA 841 406-657-2920 don.wilathgamuwa@msubillings.edu http://www.msubillings.edu/mathfaculty/wilathgamuwa/

**Office Hours:** M: 10:30-12:30 W: 9:00 a.m.-12:00 noon. (LA 841) Or by appointment

Catalog Description: Includes techniques and applications of integration, analytic geometry and the theory of sequences and series. This course is a continuation of M 171.

**Course Goals and Purpose:** This course is intended as a first course in integral calculus for students. Upon completion of the course, students should be able to work with transcendental and trigonometric functions in combination with polynomials and rational functions as they study integrals. The students should also be well versed in the mathematical language needed for applying the concepts of integral calculus to numerous applications in science, engineering and applied mathematics. Our goal of this course is to present the key concepts and main ideas of integral calculus. Students will demonstrate ability to understand quantitative measures, use quantitative skills to solve problems, and use logical skills to make judgments. Students will also demonstrate a basic understanding of subject matter; they'll demonstrate thinking, comprehension, and expression of subject matter. And finally, students will demonstrate ability to identify and solve problems using methods of this discipline.

Text: Thomas' Calculus Early Transcendentals, 13th Edition By Weir and Hass, Bundled with MyLab.

**Prerequisite:** M 171 or equivalent

<b>Course Outline:</b>	Chapter 5: Integration
	Chapter 6: Applications of Definite Integrals
	Chapter 7: Integrals and Transcendental Functions
	Chapter 8: Techniques of Integration
	Chapter 9: First order differential equations
	Chapter 10: Infinite Sequences and Series

## **Grading Scale:**

Donoontogo	Crede	Item	Damaantama
rercentage	Graue	l	Percentage
90-100%	А	MML online Homework	20 %
80-89%	В	Quizzes	15 %
70-79%	С	Exam1	15 %
60-69%	D	Exam2	15 %
Below 60%	F	Final Exam	35 %
		Total	100 %

**IMPORTANT:** If you will be out of town for sports or work or whatever and you see that a quiz or an exam is coming, you MUST consult with the instructor to determine if you can take the exam before you leave. You must plan your schedule. You will be held responsible for taking your quizzes and exams on or before the scheduled date.

**Registration:** You will access the internet homework by first registering at the following site: http://pearsonmylabandmastering.com/

Click on the **Register** button on the right-hand side.

The **Student Access Code** is contained in your bundled package.

The **Course ID** for this course: this number is available in the **Student Registration Handout** The school choice is: **MONTANA STATE UNIV – BILLINGS**.

Follow the directions. Make sure you install the required software plug-ins during this process. For more information: Read Student Registration Handout

**Note:** If you have only the textbook, you can purchase a Student Access Code online in the online registration process.

### Note: If you have technical problems call: 1-800-677-6337.

Homework: All homework will be taken at the above MyLab website.
Click on the Log In button located on the right-hand-side.
Give your Login Name and Password.
Click on the M 172-001 link located on the left-hand-side.
Click on the HOMEWORK button located on the left-hand-side.
Click on the appropriate Homework Chapter link located under the Assignment.

**Note:** These graded homework problems can be taken an unlimited number of times. Your work is saved automatically when you leave the homework site.

Quizzes: Refer to the course calendar. There will be no makeup quizzes.

**In-Class Exams and the Final Exam:** There will be 4 in class exams in addition to the final (Mandatory 1 hour 50 minutes exam). The use of a <u>non-graphing calculator</u> will be permitted on the exams. The use of books, notes or other resource materials will not be permitted on any exams.

**Gradebook:** Your homework and exam grades can be viewed by clicking on the **GRADEBOOK** button, located below the **QUIZZES & TESTS** button.

**Calendar**: The calendar for this course can be viewed by first clicking on the **HOMEWORK** button. Next, click on the **Course Calendar** link located at the right-hand top of the page. All the important dates for the homework are shown here. **ALL work must be completed no later than the DUE DATES.** 

Incomplete: No Incompletes will be given unless requirements as per student handbook are met.

**Classroom Etiquette:** Maintaining an environment conducive to learning is of the utmost importance. Hence, talking with fellow students is discouraged. Also, please turn off all electronic devices before entering the class.

Attendance: Regular attendance is essential. Attendance will be taken every day.

**Tutoring:** Free math tutoring sessions (onsite and online) are available in the Academic Student Center. For more information go to **http://www.msubillings.edu/asc** You are advised to make use of this opportunity.

# Important URL s: How to Study Mathematics-written by Paul Dawkins http://tutorial.math.lamar.edu/pdf/How\_To\_Study\_Math.pdf

#### **Important Dates:**

Last Day for Registering/Adding Classes	Friday, January 23
Last Day for Withdrawing/Dropping Classes with a Partial Refund	Wednesday, February 4
Last Day to Drop Classes Without Instructor Permission (No Refund)	Thursday, March 12
Last Day to Drop a Class with Approval of Advisor and Course Instructor	Thursday, April 9

**Financial Aid and Scholarship:** Dropping a course, getting an incomplete, or getting a Failing/lower grade may affect your scholarship or your financial aid. For more information go to:

http://www.msubillings.edu/finaid/

### **Further Information**

**1.** Some of you will face personal situations during this semester that will rightfully demand more attention than this class, and will not allow you to be mentally in class. Whenever possible, accommodations that are fair to you will be made if I am informed in a timely manner **before deadlines**.

**2.** For both a student and a teacher there is no substitute for preparation. I expect you to stay current in your readings and other assignments. You should plan on spending time each and every day studying these concepts. Some assignments will require more of your time than others.

**3.** As college students you should be very familiar with the requirements for academic integrity. Although discussing ideas from the class with others is both productive and encouraged, I expect answers on your exams to be your own independent work. Students who cheat on class assessment work will meet with disciplinary action, including but not limited to a failing grade in the course. For further information, consult the MSU-B student handbook (available online at the MSU-B home page).

**4.** An Incomplete (grade) is given only when students have been 'in attendance' for at least three-fourths of the semester but have been <u>prevented by circumstances beyond their control from completing all the</u> requirements of the course. The student must provide adequate evidence to the instructor as to the reason why they were unable to complete the requirements of the course. An Incomplete must be made up within one calendar year or the grade will revert to an F. In general, to make up an incomplete for this class, the student must retake the course and will be required to submit all material required by the new instructor of a regular student. No extra credit is offered.

**5.** Students with disabilities, whether physical learning, or psychological, who believe that they may need accommodations in this class, are encouraged to contact Disability Support Services (DSS) as soon as possible to ensure that such accommodations are implemented in a timely fashion. Lease meet with DSS staff to verify our eligibility for any classroom accommodations and for academic assistance related to your disability. The DSS staff can be reached at 406-657-2283.

## Memo from Academic Support Center and Disability Support Services

### **Students with Disabilities:**

MSU Billings is committed to providing equal access. If you anticipate barriers related to the format or requirements of this course, please meet with me so that we can discuss ways to ensure your full participation in the course. If you determine that disability-related accommodations are necessary, please contact Disability Support Services (657-2283; located in Room 135 in the College of Education). We can then plan how best to coordinate your accommodations.

### Academic Support Center:

The Academic Support Center of MSU Billings provides tutoring services to support the academic success students. Any MSUB/City College student can utilize the services on either campus. The ASC is staffed with student tutors, professional tutors and instructors who are trained to tutor in a variety of subjects. Tutors are available to assist students with math, writing, reading, anatomy and physiology, and other specialty areas for specific majors. Tutoring services are "free" as they are already paid for as part of your student fees. The ASC hours are as follows:

- University Campus Located in the SUB Monday through Thursday, 8 a.m.-7 p.m., Friday, 8 a.m.-5 p.m. Friday, and Sunday nights from 6-9 p.m.
- City College Campus —Located in the Tech Building Monday through Thursday, 8 a.m.-6 p.m., and Friday, 8 a.m.-5 p.m.

Week		Date	Topic	Week		Date	Topic
1	Μ			8	М	9-Mar	Ch8
	Т				Т	10-Mar	Ch8
	R	15-Jan	Ch5		R	12-Mar	Ch8, Q6
2	М	19-Jan	No Classes- Martin Luther King day	9	М	16-Mar	Ch8
	Т	20-Jan	Ch5		Т	17-Mar	Ch8
	R	22-Jan	Ch5, <b>Q1</b>		R	19-Mar	Ch8, Q7
3	Μ	26-Jan	Ch5	10	М	23-Mar	Ch8
	Т	27-Jan	Ch5		Т	24-Mar	Ch8
	R	29-Jan	Ch5, <b>Q2</b>		R	26-Mar	Ch8, <b>Q8</b>
4	Μ	2-Feb	Ch5	11	Μ	30-Mar	Ch9
	Т	3-Feb	Ch6		Т	31-Apr	Ch9, <b>Q9</b>
	R	5-Feb	Ch6, Q3		R	2-Apr	No Classes- Spring mini break
5	Μ	9-Feb	Ch6	12	Μ	6-Apr	Ch9
	Т	10-Feb	Ch6		Т	7-Apr	Ch10
	R	13-Feb	Ch7, <b>Q4</b>		R	9-Apr	Ch10, <b>Q10</b>
6	M	16-Feb	No Classes- Presidents' day	13	М	13-Apr	Ch10
	Т	17-Feb	Ch7		Т	14-Apr	Ch10, <b>Q11</b>
	R	19-Feb	Ch7, <b>Q5</b>		R	16-Apr	Ch10
7	Μ	23-Feb	Ch8	14	М	20-Apr	Exam2
	Т	24-Feb	Ch8		Т	21-Apr	Ch10
	R	26-Feb	Exam1		R	23-Apr	Ch10
28-Feb to 8-March: Spring Break							

Tentative calendar for M 172-001, spring 2015

Final Exam: Wednesday 29-Apr-15, 8:00 a.m. to 9:50 a.m.