60238 Math 172 Section 001	**Fall Semester 2018**
Calculus II	**Monday – Thursday**
4 credits	**0810 - 0910**
	LA 315

Instructor   Dr. Mark D. Jacobson

Office Hours   Monday – Wednesday: 10:45 a.m. – 12:15 p.m. (noon) or by appointment

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Phone   406-657-2203

Text   *Thomas' Calculus Early Transcendentals*, 14th Edition by Hass, Heil and Weir. **Bundled with MyMathLab.**

Catalog Description M 172 Calculus II, 4 credits

                        Prerequisite: M 171 or equivalent.

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

Learning Outcomes
1. Use the finite and Riemann sums to find the area between two curves.
2. Use the integral to find the area between two curves, and calculate volumes of revolution, the average value of a function, and arc length.
3. Integrate and differentiate hyperbolic functions.
4. Use standard integration techniques, including trigonometric substitution, integration by parts, and partial fractions.
5. Identify and calculate improper integrals.
6. Solve first-order linear differential equations.
7. Compute limits of infinite sequences, and test for monotonicity and boundedness.
8. Compute sums of geometric series and telescoping series.
9. Determine convergence, absolute convergence and divergence of infinite series using the standard convergence tests.
10. Compute the radius and interval of convergence of power series.
11. Compute Taylor series and Taylor polynomial approximation of functions.

Course Outline   Chapter 5: Integration

                        Chapter 6: Applications of Definite Integrals

                        Chapter 7: Integrals and Transcendental Functions

                        Chapter 8: Techniques of Integration

Chapter 9: Further Applications of Integration

Chapter 10: Infinite Sequences and Series

Assessment   Progress by the student will be assessed primarily through written work (homework and written exams). Homework is designed to serve as a medium of practice of the concepts covered in the daily class lectures while the in-class exams are to assess the mastery of the material by the student. Tests will be given on the announced date only unless other arrangements are made **prior to the test**. **In the event of an emergency, you must notify me by phone or e-mail PRIOR to the test.** No make-up exams will be given. There may also be projects and/or take-home exams during the semester, though these will be limited in nature if they are assigned at all. The purpose of all forms of assessment is to measure mastery of material as well as encourage development of problem solving and critical thinking skills.

ITEM	**Percentage**
MyMathLab Homework	25 %
4 In-Class Exams (Equal Value)	75 %
TOTAL	**100 %**

Percentage	**Grade**	**Points**
100 – 93 %	A	4.0
92 – 90 %	A-	3.7
89 – 87 %	B+	3.3
86 – 83 %	B	3.0
82 – 80 %	B-	2.7
79 – 77 %	C+	2.3
76 – 73 %	C	2.0
72 – 70 %	C-	1.7
69 – 67 %	D+	1.3
66 – 63 %	D	1.0
62 – 60 %	D-	0.7
Below 60%	F	0.0

Registration: See the last page (page 5) of this syllabus for registration instructions for this course. Access the online homework and gradebook by accessing the following site: **http://pearsonmylabandmastering.com/** .

Note: If you have only the textbook, you can purchase a Student Access Code online as shown in the registration process for about $100.

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

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

Gradebook: Your homework and exam grades can be viewed by clicking on the **GRADEBOOK** button, located on the left-hand side.

Calendar: The calendar for this course can be viewed by clicking on the **Course Home** button, located at the upper left-hand top of the page. All the important dates for the homework and exams are shown.

EText: Fast access in MyMathLab: Click on **Chapter Contents** on the left-hand sidebar, then go the desired Chapter and Section.

Calculators	**NO CALCULATORS, SMART PHONES, or ANY ELECTRONIC DEVICES DURING IN-CLASS EXAMS!**
	Calculators are allowed on the Web Homework.
Attendance	In a class such as this one – which is structured on sequentially learned skills – attendance is important! You are responsible for all material covered in each class – whether you are there or not. In addition, any quizzes or 'minute papers' that are given on a particular day will <u>not</u> be available to you on a later date unless alternate plans have been made ahead of time.
Incompletes	An Incomplete (grade) is given only when students have been <u>in attendance</u> for at least three-fourths of the semester but have been <u>prevented by circumstances beyond their control from completing all the requirements of the course</u>. 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.
Plagiarism / Cheating	Neither will be tolerated in this class. Stealing others work – with or without their permission – is not acceptable for the simple reason that is blocks your learning. It will catch up with you eventually. You are expected to come out of any course with a knowledge base. If you do not have it, your success later may be in jeopardy. I cannot guarantee that I will catch all acts of dishonesty. However, for those I do catch, the first instance is a zero on that assignment and the second is an F for the course. Don't do it! You have more integrity than that. Refer also to page 134 of your student handbook.

Cell phones, et el　　I expect all modes of electronic communication as well as games, etc. to be <u>off</u> during class time. If there is some reason that you must be available for a call, please talk to me about it.

On-campus evacuations　　There will be times when you will be exiting your classroom due to evacuation drills or a real emergency. Keep two things in mind:
- Treat all instances seriously!
- **TAKE ALL PERSONAL BELONGINGS WITH YOU**. Any that you leave behind may be confiscated for several days!!

Phone numbers　　　　Admissions and records 657-2158　　　Campus police 657-2147

Disability Statement　　If you have a physical, learning, or psychological disability and require accommodations, please let me know as soon as possible. You have the responsibility to identify yourself, request appropriate accommodations and reasonable modifications. You are encouraged to contact Disability Support Services in College of Education Room 135, (406) 657-2283 (Phone), (406) 545-2518 (Video Phone).

See **MyLab & Mastering Student Registration Instructions** on the next page.

Student Registration Instructions

To register for M 172-001 Fall 2018 :

1. Go to www.pearson.com/mylab .
2. Under Register, select **Student** .
3. Confirm you have the information needed, then select **OK! Register now** .
4. Enter your instructor's course ID: jacobson50424 , and **Continue** .
5. Enter your existing Pearson account **username** and **password** to **Sign In** . You

   have an account if you have ever used a MyLab or Mastering product.

   » If you don't have an account, select **Create** and complete the required fields.
6. Select an access option.

   » Enter the access code that came with your textbook or that you purchased separately
     from the bookstore.
   » If available for your course,
     • Buy access using a credit card or PayPal.
     • Get temporary access.
7. From the You're Done! page, select **Go To My Courses** .
8. On the My Courses page, select the course name **M 172-001 Fall 2018** to start your work.

To sign in later:

1. Go to www.pearson.com/mylab .
2. Select **Sign In** .
3. Enter your Pearson account **username** and **password,** and **Sign In** .
4. Select the course name **M 172-001 Fall 2018** to start your work.

To upgrade temporary access to full access:

1. Go to www.pearson.com/mylab .
2. Select **Sign In** .
3. Enter your Pearson account **username** and **password,** and **Sign In** .
4. Select **Upgrade access** for **M 172-001 Fall 2018 .**
5. Enter an access code or buy access with a credit card or PayPal.