Math 236-0004 – Calculus II
Last updated: October 11, 2017 **SYLLABUS** **Fall 2017**

Course Location and Time	Moody Hall 201, MW 125-215p, TU 1230-145p
Instructor	Prof. Ashley K. Wheeler Visiting Assistant Professor Department of Mathematics & Statistics Office: Roop Hall 322 Email: `wheeleak@jmu.edu`
Office Hours	TWU 330-430p or by appointment. Best times: late mornings or late afternoons MTWU, late morning or early afternoon on Fridays.
Textbook	*Calculus*, Taalman & Kohn.
Calculators	Sliderules are permitted, but not required.
Attendance and Class Participation	YOU ARE RESPONSIBLE for attending class. If you cannot make it make sure to get notes from a classmate or meet me during office hours. Participation is expected. Ask questions when you have them. When time permits, I will call students to present solutions to problems to the class. Be supportive of each other!
Decorum	Cell phones, palm pilots, Blackberries, iPods, etc. – please be courteous about their use during class. Do not plan to use any such device, even as a clock, on an exam. No earplugs/headsets allowed. Class activities should fit as precisely into the scheduled time as possible. I will do my best to start on time and not lecture past the end of classtime. In return, if for whatever reason you end up late to class or if you need to leave during lecture, for example, to use the restroom, please do so as discreetly as possible. Rolling in late and/or packing up early are <u>not</u> <u>cool</u>, as the noise distracts and sabotages your classmates' investment in the course.
Academic Honesty	JMU students are fully responsible for knowing and abiding by the University's Academic Integrity Policy. See `www.jmu.edu/honorcode/code.shtml` for JMU's honor code. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor. On take-home written assignments, you are welcome to use any resources you like **but you must document them.** There is no format I require for documenting sources (e.g., MLA). I am interested in where you get your mathematical information – from peers, tutors, websites, other textbooks, etc. You don't need to document material from this course's text or notes.

Accommodations JMU abides by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, which mandate reasonable accommodations be provided for students with documented disabilities. If you have a disability and may require some type of instructional and/or examination accommodations, please contact me early in the semester so that I can provide or facilitate provision of accommodations you may need. If you have not already done so, you will need to register with the Office of Disability Services, the designated office on campus to provide services for students with disabilities. The office is located in Wilson Hall, Room 107 and you may call 540-568-6705 for more information.

Inclement Weather Policy See `http://www.jmu.edu/JMUpolicy/policies/1309.shtml`.

Religious Observation Accomodations All faculty are required to give reasonable and appropriate accommodations to students requesting them on grounds of religious observation. The faculty member determines what accommodations are appropriate for his/her course. Students should notify the faculty by no later than the end of the Drop-Add period the first week of the semester of potential scheduled absences and determine with the instructor if mutually acceptable alternative methods exist for completing the missed classroom time, lab or activity.

Grading

Exercises (online) Webwork.	15%
Take-home quizzes Average of your top 8 quizzes (out of ∼10).	20%
Three In-Class Exams Dates TBA.	15% each
Final (comprehensive)	20%

Letter grades will typically follow a 90-80-70-60 scale, although your instructor reserves the right to revise downward if necessary. For example, a 90% or higher will always guarantee an A.

Disclaimer **THIS SYLLABUS IS SUBJECT TO CHANGE.** You will be notified in email and/or in class of changes.

MATH 236. Calculus II.

Goals of the Course

1. L'Hopital's Rule and indeterminate forms
2. Inverse trigonometric functions
3. Integration
    a. Expanding integration techniques
        i. Integration by substitution
        ii. Integration by parts
        iii. Integration of trigonometric functions and more complicated trigonometric expressions
        iv. Integration by partial fractions
        v. Integration by trigonometric substitution
        vi. Improper integrals
4. Applications of integration
    a. Area between two curves
    b. Formal definition of logarithm as an integral
    c. Calculating volumes of solids
        i. Solids of revolution by "washer" method
        ii. Solids of revolution by "shell" method
    d. Arc length
    e. Areas of surfaces of revolution(*)
    f. Exponential growth and decay
    g. Solving differential equations (separable and/or linear) (*)
    h. Work (*)
    i. Moments and centers of mass (*)
5. Infinite series and sequences
    a. Convergence of sequences
    b. Tests for Convergence of infinite series
    c. Power series
        i. Radius and interval of convergence
    d. Taylor and MacLauren series representations of functions
    e. Convergence of Taylor series

(*) Time permitting

Nature of the Course Content

MATH 235*-236. Calculus I-II.
4 credits each semester. *Offered fall and spring.*
Differential and integral calculus of functions of one variable. Sequences and infinite series. *Prerequisite for MATH 235: Sufficient score on the Mathematics Placement Exam. Prerequisite for MATH 236: MATH 232 or MATH 235 with grade of "C" or better. MATH 235 is not open to students who have already earned credit in MATH 232.*