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<http://www.homepage.villanova.edu/robert.jantzen> [bob cell: 610–716–zerothreefivesix use it wisely]

MWF/Th	M	T	W	Th	F	Rm
10:20–11:10/10:00–10:50	MAT2500-01		MAT2500-01	MAT2500-01	MAT2500-01	Zoom
1:50–2:40/12:45–1:35	MAT2500-03		MAT2500-03	MAT2500-03	MAT2500-03	Zoom

**Course Format:**

This is a synchronous remote Zoom class with assessments managed through BlackBoard (Course content) and homework submitted through the WebAssign e-textbook portal. The Zoom class link is available in the BlackBoard left margin navigation list as Villanova Zoom.

**WebAssign codes:** 2500–001: villanova 3259 3070, 2500-003: villanova 1656 5959

A Blackboard left margin navigation list link “Office Hours Anytime” allows any student to initiate a Zoom window with bob once a mutually agreeable time is arranged in advance through email. [Generally before 8pm daily, weekends are allowed.]

**MATH 2500:** Calculus III (multivariable calculus with Maple)

e-Textbook: *Calculus: Early Transcendentals, Edition 8e* by J. Stewart through WebAssign online; sections 12.1–4,10.1,12.5, 13.1–4, 14.1,3–7, 15.1–3,5,7,10.4,12.7,15.4,8, 16.1–5,[6-9] (brackets mean optional) Available cheapest through Cengage online; at University Shop with optional looseleaf paper edition.

**Quiz and Test**

9 weekly quizzes released Friday, due Saturday midnight during non-test weeks; 3 “hour” tests and equally weighted **Final Exam** delivered through BlackBoard. Notify me if you cannot submit a quiz/test by the stated deadline in BlackBoard, but submit anyway. Maple and/or graphing calculators may be used to check (not justify) any operations on these assessments.

**Homework:** The synchronous Zoom lecture delivery helps you initially digest each new topic with explanation and examples but please READ the textbook carefully before doing homework, which will be entered through the class WebAssign portal. By doing the homework problems, referring back to notes or text where necessary is crucial for fully digesting new mathematical ideas.

**Grades:** 9 short weekly quizzes will monitor your understanding of the homework and class material. 3 “hour” tests plus equally weighted final exam will largely determine your grade, plus homework input. Lowest quiz grade, lowest of first two test grades dropped only if the subsequent third test grade is higher. A formula like

$$.10(\text{quiz avg}) + .20(\text{hw avg}) + .00(\text{Maple avg}) + .70(\text{tests-final avg})$$

will be used to compute your raw number grade which has only a relative significance. Pass/Fail Maple assignments done in groups of 3 or 4 will be used to determine grade adjustments. No Maple submitted, no mercy. Individual student progress (and decline!) is also weighed by hand after final exam. Letter grade cutoffs/ grading weights given in Excel spreadsheet online at course website. All grades posted in Blackboard.

**In class tips:** Since you have my PDF handwritten lecture notes, there is no need to “take notes” so listen carefully as I lecture and interrupt me when you are lost or wish to clarify some point. Ask a question or slow me up if you are confused. If you don’t, you are wasting an opportunity to do better. Communicate with me, during class or at least after class. Ask me about what is unclear. Remember: mechanical calculations can be done by machines; you need to learn the ideas to think for the machines in applying them.

**Course Description** Catalog entry: MAT 2500 – Calculus III:

Description: Integration (indefinite, definite), applications of integration (area, volume, applications to physics and economics, etc.), methods of integration, approximate integration (trapezoidal and Simpson’s rules), improper integrals, differential equations, infinite sequences and series. Continued use of a computer algebra system.

[It is assumed the student has had integration up to the fundamental theorem of calculus.]

**Disabilities and Learning Support Services:**

Students with disabilities who require reasonable academic accommodations should schedule an appointment to discuss specifics with me. It is the policy of Villanova to make reasonable academic accommodations for qualified individuals with disabilities. You must present verification and register with the Learning Support Office by contacting 610-519-5176 or at [learning.support.services@villanova.edu](mailto:learning.support.services@villanova.edu) or for physical access or temporary disabling conditions, please contact the Office of Disability Services at 610-519-4095 or email [Stephen.mcwilliams@villanova.edu](mailto:Stephen.mcwilliams@villanova.edu). Registration is needed in order to receive accommodations.

**Academic integrity statement with link to Academic Integrity Gateway:**

All students are expected to uphold Villanova's Academic Integrity Policy and Code. Any incident of academic dishonesty will result in an F for the assignment and will be reported to the appropriate university officials, per regulations in the Graduate Studies (Liberal Arts and Sciences) Catalog. You can view the Academic Integrity Policy and Code, as well as other useful information related to writing papers, at the Academic Integrity Gateway web site: <http://library.villanova.edu/Help/AcademicIntegrity>

**Math Learning and Resource Center (MLRC):** The MLRC provides free peer tutoring help for this course.

Tutoring support options includes face-to-face and online tutoring by appointment as well as virtual drop-in tutoring. You can get tutoring help any time the MLRC is open (the hours are Monday through Thursday 11am–9pm and Sundays 6:30pm–9pm.)

See <https://www.villanova.edu/villanova/provost/mlrc.html> for more information, to book an appointment and to access the Virtual MLRC.

**Absences for Religious Holidays** Villanova University makes every reasonable effort to allow members of the community to observe their religious holidays, consistent with the University's obligations, responsibilities, and policies. Students who expect to miss a class or assignment due to the observance of a religious holiday should discuss the matter with their professors as soon as possible, normally at least two weeks in advance. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the absence.

**More detail.** Check out the class website link on bob's webpage for more details on all aspects of the course.

For example the 20% weight assigned to the WebAssign homework does not reflect the importance of doing the homework to do well in this course. Indeed it is the single most important thing a student can do well to improve his or her performance in the course. Additional assigned problems from the textbook not available in WebAssign (all chapter review problems, for example) are important to your understanding.

Note that daily WebAssign assignments are due at 11:59pm of the due date (next class meeting) so that you can ask questions about problems you are having trouble with before the deadline. By default 5 attempts to enter a correct answer are allowed per entry, and deadline extensions and additional attempts for any particular assignment maybe requested with the WebAssign Extension tool. Your total number of correct entries divided by the total number of entries normalized to 100 gives your HW average. Initiate getting help on any particular WebAssign problem using the *Ask Your Teacher* tool and send bob a scan/photo/MapleWorksheet of your work by email.

Quiz and test submissions must use the free smart phone app Adobe Scan (or its equivalent) to create single PDF files using 8.5x11 inch rectangular sheet paper images without extra photo borders in those scans to submit quizzes and tests through BlackBoard.