

24F **Bob Jantzen** (“bob”) SA 370 tel: **610-519-7335** e-mail: <mailto://robert.jantzen@villanova.edu>
<http://www.homepage.villanova.edu/robert.jantzen> [bob cell: 610-716-zerothreefivesix use it wisely]

MWF/Th	M	T	W	Th	F	Rm
10:40-11:30/11:00-11:50	Office	Office	Office		Office	SA370
11:45-12:35/1:00-1:50	MAT2705-06	MAT2705-06	MAT2705-06		MAT2705-06	
12:50-1:40/12:00-12:50	MAT2705-07	MAT2705-07	MAT2705-07		MAT2705-07	
1:55-2:45/2:00-2:50	Office	Office	Office		AOffice	SA370

E-textbook and homework portal are accessed through BlackBoard (course content) and homework is submitted through the WebAssign e-textbook portal. The Zoom “Office Hour Anytime” link is available in the BlackBoard left margin navigation list for unscheduled remote consultation, once a mutually agreeable time is arranged in advance through email. AOFFICE means “almost”, check first if bob is in (normal situation). Students may email bob or send Ask Your Instructor messages 24/7. Texting is less useful.

MATH 2705: Differential Equations with Linear Algebra (with Maple)

Textbook: *Differential Equations and Linear Algebra (4th Ed)*

by Edwards, Penney, Calvis e-text portal via MyLab Math inside BlackBoard:

[MyLab Math Digital Update with Pearson eText – Access Card – for DiffEq and LinAlg (18 Weeks)]

[sections 1:1-5, 2:1(3,4), 3:1-6(7), 4:1-4(5), 5:1-6(omit 5:5 VarOfPar), 6:1-2(3),

7:1-6(omit 7:6 defective case), optional sections in parentheses]

Final Exam 2705-06 MWF/Th 11:45: Tues, Dec 17 8:30 am - 11:00 am

2705-07 MWF/Th 12:45: Fri, Dec 20 2:30 pm - 5:00 pm [switch okay with permission]

Homework: The 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 classBlackBoard Pearson e-portal. Doing the homework problems, referring back to notes or text where necessary is crucial for fully digesting new mathematical ideas. Suggested deadlines do not prevent you from continuing to work on the homework after they have passed. You have unlimited tries.

Quiz and Test

9 weekly weekend take home quizzes released in class on Friday, due Monday in class during non-test weeks; 3 tests (third is a week long take home) and an equally weighted **Final Exam**. Notify me if you cannot submit a quiz/test by the stated deadline. Maple and/or graphing calculators may be used to check (not justify) any operations on these assessments.

Grades: Lowest quiz grade, lowest of first two test grades dropped only if the subsequent third test grade is higher. A formula like

$$.10(\text{quiz } avg) + .25(\text{hw } avg) + .65(\text{tests-final } avg)$$

will be used to compute your raw number grade which has only a relative significance. 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 grade link. All grades posted in Blackboard.

In class tips: Derivations may be found in my PDF handwritten lecture 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. 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 2705 – Differential Equations with Linear Algebra:

Description: First order and linear second order differential equations, matrices and linear equation systems, eigenvalues and eigenvectors, and linear systems of differential equations. (4 cr)

Disabilities and Learning Support Services:

It is the policy of Villanova to make reasonable academic accommodations for qualified individuals with disabilities. All students who need accommodations should go to Clockwork for Students via myNOVA

[<https://vuclockwrk.villanova.edu/clockwork/custom/misc/home.aspx>]

to complete the Online Intake or to send accommodation letters to professors. Go to the LSS website <http://learningsupportservices.villanova.edu> or the ODS website <https://www1.villanova.edu/university/student-life/ods.html> for registration guidelines and instructions. If you have any questions please contact LSS at 610-519-5176 or learning.support.services@villanova.edu, or ODS at 610-519-3209 or ods@villanova.edu.

[There are no timed quizzes and Lecture Notes are available online so no special accommodations should be necessary.] Contact bob for extended time on tests.

Diversity, Equity and Inclusion Diversity of student experiences and perspectives is essential to the deepening of knowledge in a course. I consider it part of my responsibility as an instructor to address the learning needs of all students in this course. It is also the responsibility of all students to exhibit professional courtesy and respect for all members of the class. Don't hesitate to question me in class, or privately outside of class and in office hours where you are free to discuss anything on your mind. Villanova is special in that you have small classes and can get to know your professors—take advantage of this opportunity!

Academic integrity

All students are expected to uphold Villanovas Academic Integrity Policy and Code. Any incident of academic dishonesty will be reported to the Dean of the College of Liberal Arts and Sciences for disciplinary action. You may view the University's Academic Integrity Policy and Code for a detailed description:

<https://www1.villanova.edu/villanova/provost/resources/student/policies/integrity.html>

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

From quick homework clarification questions to prep for final exams and anything in between, we can help! If you need a refresher on high school level math topics, we can lend a helping hand with that as well. Book a 1:1 session or just walk in any time for drop-in help no appointment necessary! Hours and Location: Monday through Thursday 11:00 a.m. p.m.–9:00 p.m., Fridays 11:00 a.m.–3:00 p.m., Sundays 3:00 p.m.–9:00 p.m. in Falvey 204. For more information or to book an appointment, see

<https://villanova.mywconline.com/>

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.

Personal days In addition to the attendance policy stated above, students are entitled to two excused absences for any reason that may contribute to their personal wellness. Students must advise the instructor by email before class of their intent to utilize a Personal Day as the reason for their absence. A Personal Day will not be approved retroactively. Students may, but are not required, to provide additional information regarding their absence. Additionally, Personal Days may not:

be used on consecutive class days;

be used in the same week;

be used immediately preceding or following a University holiday or break period;

be used on days when exams, presentations or other major assignments are scheduled.

A Personal Day does not grant an automatic extension for items due. Students remain responsible for all assignments, exams, presentations, etc. due on that date. It is in the instructor's discretion to determine whether any extension is appropriate given individual circumstances.

More detail: <http://www34.homepage.villanova.edu/robert.jantzen/courses/mat2705>

Check out the class website link on bob's webpage for more details on all aspects of the course. For example the 25% weight assigned to the MyLab Math Pearson 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.

Note that daily MyLab 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 MyLab 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 MyLab problem using the *Ask Your Teacher* tool and send bob a scan/photo/MapleWorksheet of your work by email.