22S **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/T | M | T | W | Th | F | Rm |
|---|---|---|---|---|---|---|
| 10:30–11:20 | M2705-04 | M2705-04 | M2705-04 | | M2705-04 | MenG86/JB201B |
| 11:30–12:20 | M2705-05 | M2705-05 | M2705-05 | | M2705-05 | MenG86/JB201B |
| 12:30–1:20 | Office | Office | Office | | Office | SAC370 |
| 1:20–2:00 | AOffice | AOffice | AOffice | | AOffice | SAC370 |

The Zoom "Office Hour Anytime" link is available in the BlackBoard left margin navigation list. I will entertain "Office Hour Anytime" questions at reasonable times, after a heads up through email. [Generally before 8pm daily, weekends are allowed.] AOFFICE means "almost", check first if bob is in (normal situation).

**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 2705-04 MWF/T 10:30: Sat, Apr 30 08:00 AM - 10:30 AM
          2705-05 MWF/T 11:30: Mon, May 2 2:30 PM - 05:00 PM [switch okay with permission]

**Quiz and Test**
  9 weekly quizzes released on BlackBoard Friday, due submitted to BlackBoard Sunday midnight during non-test weeks. 3 "hour" tests and equally weighted final exam. First 2 tests and the final exam in person, 3rd exam take home. Notify me if you cannot submit a quiz by the deadline in BlackBoard, but submit anyway. Maple and/or graphing calculators may be used to check (but not justify) any operations on these assessments. **Quiz 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 through BlackBoard.

**Homework**: READ the book carefully before doing homework. Keep a notebook or looseleaf binder or folder in which to record your worked homework problems. The log of assigned homework problems is kept at our class website. Homework submission will managed through our e-text web portal MyLab Math within BlackBoard. Not doing homework will have a snowball effect in derailing your understanding in the course. (When under time pressure at least do some key problems when they are assigned. Finish the rest as soon as you can.) Homework may be resubmitted for full credit until May 6. 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 an 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

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

will be used to compute your raw number grade which has only a relative significance. Nongraded Maple assignments done in groups of 3 or 4 will be used to help build learning partnerships in the class. 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 are posted in Blackboard and cumulative grades may be checked with the online Excel spreadsheet and letter grade cutoffs.

**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 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)

**Office of Disabilities (ODS) and Learning Support Services (LSS)** It is the policy of Villanova to make reasonable academic accommodations for qualified individuals with disabilities. Go to the Learning Support Services website http://learningsupportservices.villanova.edu for registration guidelines and instructions. For physical access or temporarily disabling conditions, please contact the Office of Disability Services at 610-519-3209 or 610-519-4095, or email ods@villanova.edu. Registration is needed in order to receive accommodations.

**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!

**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 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. Registration is needed in order to receive accommodations. [There are no timed quizzes or tests in the online format and Lecture Notes are available online so no special accommodations should be necessary.]

**Academic integrity**
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. From quick homework clarification questions, to prep for exams and anything in between, wthe MLRC can help! 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.) For more information or to book an appointment, see http://wwww.villanova.edu/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 Universitys 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 MyMath Lab submitted 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 MyMath Lab are important to your understanding.

Note that daily MyLab Math 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 3? attempts to enter a correct answer are allowed per entry, then random parameters are changed for new attempts. Deadline extensions and additional attempts for any particular assignment maybe requested with the Extension tool and are always granted. 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 Math problem using the *Ask Your Teacher* tool and send bob a scan/photo/MapleWorksheet of your work by email if that will help me understand your approach.

**Absences for Religious Holidays** Villanova University makes every reasonable effort to allow members of the community to observe their religious holidays, consistent with the Universitys 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.