

Instructor Dr. Dashun Xu

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E-mail: dashunxu@siu.edu.**Office Hours** MTWF 10:55-11:55am, M 3-4pm, T 8:50am-9:50am or by appointment

If you have questions and cannot come by during these office hours, you are welcome to email me and we can make an appointment. I usually respond to emails within two business days. If you do plan on meeting during my aforementioned office hours, please come early in the timeframe or let me know to expect you later; otherwise, I might not stay in my office for the whole time.

Textbook *Elementary Differential Equations & Boundary Value Problems*, by Boyce and DiPrima 10th ed**Coverage** Chap 1-5, 10 (may not be whole chapters). Major contents include solving first order and high order linear ordinary differential equations, Fourier series and heat conduction equations.**Homework** Homework will be assigned in class and collected every Friday in class. Late homework will not be accepted. There is no credit given for ONLY an answer. To receive full credit, you must show your work in a neat, orderly fashion and do all the assigned problems.**Exams** There will be a few quizzes based on homework, three midterm exams and a comprehensive final. The tentative schedule is posted on the course website.**Attendance Policy** It is imperative that you attend every lecture and stay for the lectures full duration. Because the material is difficult to learn on your own, very few students can succeed in this course without attending lecture. Please notify me in advance if you are going to miss part or all of a class so that we can make a plan to keep you on track.

Course evaluation

Midterm exams	35
Homework	25
Final	32
Attendance (deduct 1 point per missed class meeting)	8

Grading scale

90 A	80 B	70 C	60 D	59 F
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Important dates

Semester Classes Begin	August 18
Last day to drop with credit/refund	August 29
Labor Day Holiday	September 1
Fall Break	October 10
Last day to drop course	October 26
Veterans Day	November 11
Thanksgiving Break	Nov 22 – 30
Final Examinations	Dec 8 – Dec 12

Homework and tentative schedule All assignments will be **collected every Friday** in class and only a few questions in each assignment will be graded. Late homework will not be accepted. The followings are problems assigned last time. I will update these problems after each class meeting. Please make sure to **refresh** the webpage

Date	Homework	
Week 1		Please use the 10 th edition of the textbook to do the homework problems. Otherwise, will be marked wrong!
Week 2	1.3: 1-6, 8, 9;; 2.1: find the general sol. to 1,3,5,7 2.1: (find the general solutions, i.e. part c) 9,11, 13, 15, 2.2: 1, 2, 5, 6, 7, 13(a,c)	Due on Fri. Please donot forget to staple your homework sheets together. This webpage is updated according to the lecture pace on MWF . That is, you can get all HW due on each Fri till Wed after class.
Week 3	2.1: 17, 19;; 2.2: find the solution to 14, 22; 2.6: 3, 7, 11, 14, 15	

Week 4	2.6: 9, 13 (find the solution); 2.6: (optional: 21; 22,) 2.6: 25, 26, 27, 28, 30; 2.4: 2, 5, 7, 11	<u>Practice exam 1</u> (for you to review Chap 2) HW due on Fri.
Week 5	2.4: 28, 29, 30, 31 2.5: 3, 4, 7, 10	HW due on Fri. Exam on Fri.???
Week 6		HW also due on Fri.
Week 7	3.1: 1, 3, 9, 13, 15, 20 3.2: 9, 13, Optional: 3, 5, 11, 26 3.3: 7, 11, 17, 19, 21 Optional 9, 12, 15, 20	If possible, I still strongly recommend you to do all problems. Due on Fri.
Week 8	3.4: 7, 11, 13, 23, 27, 28, Optional: 12, 25, 29, 30, 3.5: 1, 3	<u>Practice for Chap3</u>
Week 9	3.5: 5, 7, 9, , 16, 17, 18 3.5: 21(a, donot solve), 22a, 23(a), 24(a), 25(a) 3.5: Optional: 6, 8, 10, 19 3.6: 5, 7, 13, 17, optional: 3, 4, 14, 16, 18	Due on Fri.
Week 10	4.1: optional: 14, 15, 16 4.2: 11, 13, 16, 18, 20, find solution to IVP: 31; optional: 13, 18, 19, 24, 35	

Week 11	4.2: 14, ,17, 19, 22, 23, find solution to IVP: 29 4.3: 2, 3, 6, 9, 4.3: 13, 15, 16, 17, Optional: 1, 10, 12, 14, 16, 18	Practice for Chap4 HW due on Fri.
Week 12	4.4: 2, 3, 9 10.1: 1, 3, 4 10.1: 14, 16, Optional: 2, 5,	Homework due on Next Wed. Second Exam on Next Friday??? Covering Chap3, 4, and 10.1.
Week 14	10.1: 18 10.2: 13, 15 10.3: 7a, 9a, 11a HW due also on Fri.	
Week 15	10.2: 14, 16 10.3: 1, 2, 3,	Due on Fri
	10.4: 7, 8, 9, 15, 16, 24(a,b) 10.5: 1, 2, 5, 6, 10.5: 7, 8 after watching the video for 10.5.	
Week 15	Practice for the final: Midterm exams and their practice exams, homework problems for Chap10.2—10.5	

Study Hint Find at least one or two other students from the class with whom you can regularly do homework and prepare for exams. Your classmates are perhaps the least used and arguably your best resource. An efficient and effective study group will streamline homework and study time

and greatly improve your written and spoken communication. The best time to use your classmates as study/homework partners is after you have made an **honest effort on your own** to solve the problems using your own wits, knowledge, and experience. When you encounter an unsolvable problem, don't give up too soon on it. Being stumped is an opportunity for mathematical growth and insight, even if you never solve the problem on your own. If you seek help prematurely, you will never know if you could have solved a tough problem without outside assistance.