Applied Analysis (Math 476) — Winter, 2009

Location and Time: Black 202, MWF, 1:00-1:50 pm
Instructor: Dr. Dan Curtis
Office: 107a Bouillon
Office Hours: MTWThF 11:00-11:50, and by appointment. You can drop by my office at any time and usually I'll be able to talk with you.
Office Phone: 963-2125
CWU e-mail: curtiswd@cwu.edu
Web Page: www.cwu.edu/~curtiswd
Final Exam: Wednesday, March 18: 12:00-2:00 pm

Textbook: Partial Differential Equations for Scientists and Engineers, by Stanley Farlow.

Course Content: This is the second of a three quarter sequence on applied mathematics. We will study mathematical methods for investigating a variety of natural phenomena. The topic for this quarter will be partial differential equations.

Learner Outcomes: After completing this course, the student will be able to:

- use partial differential equations to study of physical phenomena including: heat flow, diffusion processes, wave propagation, and equilibrium problems;
- formulate initial and boundary conditions appropriate to parabolic, hyperbolic, and elliptic partial differential equations;
- apply the method of separation of variables to obtain solutions of initial and boundary-value problems;
- apply the theory of Sturm-Liouville problems in the process of solving problems involving partial differential equations;
- apply transform methods to solving problems in partial differential equations.

Grading: Your course grade will be determined by the following:

1. Four assignments (50 points each) to be handed in for a total of up to 200 points
2. Two in-class exams worth 100 points each
3. A final exam worth 100 points.

A perfect score on each of the above categories would result in a total of 500 points. Your course grade will be determined by the percentage p of these points you earn, according the following scale.

$90 \le p$	A	$65 \le p < 77.5$	C
$89 \le p < 90$	A-	$64 \le p < 65$	C-
$87.5 \le p < 89$	B+	$62.5 \le p < 64$	D+
$80 \le p < 87.5$	B	$50 \le p < 62.5$	D
$79 \le p < 80$	B-	$p < 50$	F
$77.5 \le p < 79$	C+		

Class Schedule (47 class days)

Date	Class Activity	Date	Class Activity
01/05		02/16	HOLIDAY: Presidents Day
01/06	Classes begin	02/17	
01/07		02/18	
01/08		02/19	
01/09		02/20	
01/12		02/23	
01/13		02/24	
01/14		02/25	
01/15		02/26	
01/16		02/27	
01/19	HOLIDAY: MLK Day	03/02	Exam 2
01/20		03/03	
01/21		03/04	
01/22		03/05	
01/23		03/06	
01/26		03/09	
01/27		03/10	
01/28		03/11	
01/29		03/12	
01/30		03/13	Last day of classes
02/02	Exam 1	03/16	Prof. Dev./ Student Study Day
02/03		03/17	
02/04		03/18	Final Exam (12:00-2:00 pm)
02/05		03/19	
02/06		03/20	
02/09			
02/10			
02/11			
02/12			
02/13			