

SYLLABUS
CPTR637 - Formal Methods
Fall 2012 - Andrews University

Official name: CPTR637 - Formal Methods

Term: Fall 2012, Section: 001, Credits: 3

Times: MW 14:00-15:15, Dates: 8/29/2011 12/14/2011, Location: HYH 316

Instructor course information website: <http://www.andrews.edu/~bidwell/cptr637>

Instructor: Dr. Daniel Bidwell, Email: bidwell@andrews.edu

Phone: 269-471-3425, Office: Info Svs Bld 205

Web: <http://www.andrews.edu/~bidwell>

Office hours: listed in instructor web site and posted in front of office

Course Description: A survey of the different paradigms associated with formal methods. Applies formal methods to the specification, verification, and validation of software systems. Case studies are examined and a programming project is included. Prerequisites: CPTR460, MATH215, STAT285.

Textbooks and Resources

- Textbook: The Way of Z. Jonathan Jacky. 1997. Publisher: Cambridge University Press. ISBN: 0-521-55976-6.
- Textbook: Programming Perl. Larry Wall, Tom Christensen, and Randal Schwartz. 1996. O'Reilly & Associates, Inc. ISBN 1-5592-149-6.
- Computers and servers in department computer labs
- Additional online, printed and other resources as provided by instructor

Grading System, Evaluation Procedures, and Examinations

The final grade for the course is determined by the performance on exams and assignments. Additional points may be awarded at the instructor's discretion. Each assessment category contributes a percentage of the final grade. Scoring and other policies for each category and other concerns are noted below. The overall assignments score is calculated by assuming that all assignments have equal weight (unless otherwise noted for individual assignments) and using the average score. To calculate the final grade percentage score, multiply each category's percentage score by its weight as shown in the grade categories section below, then add all these weighted percentage scores. The final grade is determined by the range in the grade intervals on which this final percentage point measure falls.

- **Grade intervals**
 - A ($\geq 95\%$, $\leq 100\%$), A- ($\geq 90\%$, $< 95\%$)
 - B+ ($\geq 85\%$, $< 90\%$), B ($\geq 80\%$, $< 85\%$), B- ($\geq 75\%$, $< 80\%$)
 - C+ ($\geq 70\%$, $< 75\%$), C ($\geq 65\%$, $< 70\%$), C- ($\geq 60\%$, $< 65\%$)
 - D ($\geq 55\%$, $< 60\%$), F ($\geq 0\%$, $< 55\%$)
- **Grade categories**
 - Midterm exam 35%
 - Final exam 40%
 - Assignments 25%
- **Grade category notes**

- The midterm exam will be administered during one of the regularly scheduled class periods
- The final exam will be administered during the university scheduled finals week assigned slot for this course
- The final exam will be cumulative
- There will be a total of 4 graded assignments
- Points for assignments will be equally distributed among each assignment, unless otherwise specified; for example, some assignments may count as 2 assignments

Course Procedures, Requirements and Directions

- Attendance
 - Attendance is required during the scheduled times for the course
 - Whenever the number of absences exceeds 20% (10% for graduate classes) of the total course appointments, the instructor may assign a failing grade
 - Students are subject to Andrews University and other applicable guidelines for absences
 - Due to regulations, students must notify the instructor when missing class. An email with an explanation should be sent to the instructor before the class meeting to be missed. Additional documentation may be requested regarding the absence.
- Notifications
 - Instructor may periodically send email messages to students containing lecture schedules, assignment information, grades and other course information to the email account provided by the university
- Assignments and Exams
 - No make-up exams will be offered
 - Missed exams will be assigned a grade of 0
 - Assignments must be submitted at the time they are due
 - Assignments that are not submitted will receive a grade of 0
 - Assignments that are submitted late will receive a grade of 0
- Additional notes
 - An incomplete grade will only be granted due to extreme and documented circumstances
 - Exceptions to these and other rules might be granted (but not guaranteed) by the instructor, department, college, university and/or other authoritative entity due to extreme and documented circumstances
 - All work for the course must be done individually, unless otherwise specified by the instructor
 - Submitted assignments that contain a significant amount of copied content from an assignment submitted by another student will result in both assignments receiving no credit, and will result in additional disciplinary action as appropriate
 - Additional work for optional extra credit may be assigned at the instructor's discretion
 - Students are also bound to all regulations put in place by the university as listed on the bulletin and other channels of communication
 - Students are expected to abide by academic honesty guidelines as outlined by the university

Academic Dishonesty

Andrews University, as a Seventh-day Adventist institution, expects students to demonstrate the ability to think clearly and exhibit personal moral integrity in every sphere of life. Honesty in all academic matters is a vital component of personal integrity. Breaches in academic integrity principles are taken seriously by the University. Acts of academic dishonesty as described in the University Bulletin are subject to incremental disciplinary penalties with redemptive intent. Such acts are tracked in the office of the Vice President for Academic Administration. Repeated and/or serious offenses will be referred to the Committee on Academic Integrity for further recommendations on penalties.

Statement Regarding Students with Disabilities

Andrews University accepts and appreciates diversity in its students, including students with disabilities. Accordingly, students with documented disabilities are encouraged to inform the University of their disability and enter into a dialogue regarding ways in which the university might reasonably accommodate them. If you qualify for accommodations under the Americans with Disabilities Act, please see the instructor as soon as possible for referral and assistance in arranging such accommodations.

Other info

- Notify instructor in case of disagreement with any of the policies in this syllabus
- Syllabus is subject to change due to adjustments in course delivery and other issues identified by the instructor