

Special Topics in Computer Science

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ITSE-1394

CREDIT Spring 2016

01/19/2016 - 05/15/2016

Course Information

Section 002

Distance Learning

ONL DIL

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Section 003

Distance Learning

ONL DIL

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Office Hours

- Email to confirm appointment.
- M W
1pm - 1:30pm
- F
8am - 11am



Schedules



COURSE DESCRIPTION & RATIONALE

Course Description

Develop, test, deploy and maintain web applications using the Ruby programming language and the Rails framework with an emphasis on MVC (Model View Controller) architecture. Other technologies utilized include: HTML, CSS, Javascript and SQL. (College Catalog description)

Prerequisite

ITSE 1311 - Beginning Web Programming.

Course Rationale

This course is an intermediate course about web page/site development and is an elective course in the Web Programming A.A.S. Degree Program and the Web Developer Specialist Certificate.

Blackboard course access 1st week of class:

Students must access the course in Bb during the 1st week of class to be counted as "Attending". If a student does not access the

course in Bb during the 1st week of class s/he will be classified as "Never Attended" and will be ineligible for financial aid.

STUDENT LEARNING OUTCOMES/LEARNING OBJECTIVES

Competencies

With the use of the Ruby programming language and the Rails web application framework, at the completion of this course should be able to:

- Develop and test programs using the Ruby programming language.
 - Develop, test, and deploy basic web applications with Ruby on Rails (RoR).
 - Develop, test, and deploy web layout and user models using RoR.
 - Develop, test, and deploy user management web applications using RoR.
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READINGS

Textbooks

There are no textbooks required for this course.

Course Content

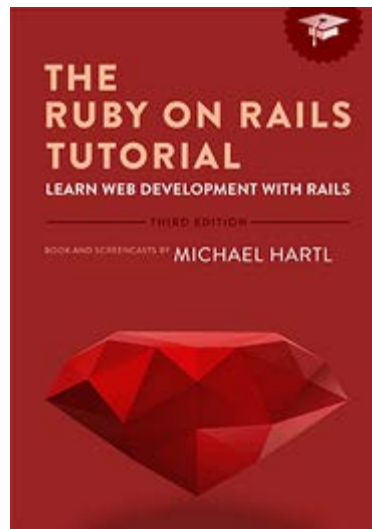
Content for the course is derived primarily from the following two websites:

Websites

[Ruby Programming Tutorial](#)



[Ruby on Rails Tutorial](#)





Click the DreamSpark logo to access free Microsoft development tools and operating systems. You should receive an email with access instructions during the first week of class.

User names and passwords are case sensitive. Check your 'spam folder' if you do not see the email in your inbox.

*If you do not receive the email by the end of the third day of class, navigate to the site via the link above and "**Sign In | Register**" using your ACC email.*

Students may 'opt out' of DreamSpark registration by sending an email to your professor by 8pm of the first day of class. Include 'DreamSpark Opt Out' in the email subject line. Be advised, opting out of registration prevents access to the free Microsoft products offered on the DreamSpark site.

COURSE REQUIREMENTS

For grade and skill acquisition success, it is imperative that students understand and follow the course requirements in this section. If items are unclear, be sure to eliminate the ambiguity.

Assignments:

1. See the Blackboard (Bb) "Assignments" section for more details about these items.
2. Complete the *Orientation Exam* by the due date in the schedule.
3. **Note:** Assignment links are automatically/programmatically removed from Bb at 11:59pm of the due date. Therefore, assignments cannot be submitted after the due date.
4. *Again, assignments cannot be submitted after the due date since the submission links are automatically/programmatically removed from Bb.*
5. To receive credit, assignments must completely meet requirements **exactly** as specified.
6. Partial credit is not awarded for assignments that do not meet requirements.
7. For the Ruby Programs 1-3, place appropriate code file(s) in a folder, R-click | Send to compressed folder to create a .zip file. Submit the .zip file to Bb. **MUST be .zip format.**
8. For the RoR WebApps 1-11:
 - o Compress your chapter directory (e.g. "sample_app") for each chapter and submit to the appropriate link in Bb. **MUST be .zip format.**
 - o If using Cloud9 (recommended), 'Download' the appropriate folder from within Cloud9. It will be in the tar.gz format which is fine for the RoR WebApp assignments.
 - o Include your Heroku link in the Bb comments section with each Bb submission.
 - o Each chapter for your site must also be published to Heroku. Do NOT publish the next assignment until the previous submission has been graded.
9. The Extra Credit Program can be used to REPLACE a ZERO from a previous assignment.

IMPORTANT NOTICE - Complete the Confirmations in Bb for each assignment before proceeding to the next assignment.

IMPORTANT NOTICE - Start work on the RoR Tutorial ASAP

TAKE NOTE!:

- The first three programs (Ruby Programs 1-3) are relatively easy and provide a gentle introduction to the course.
- However, the content in the remainder of the course can be VERY challenging and require many hours to get correct.
- Therefore, students are *emphatically encouraged* to use the early time in the course wisely and get started ASAP with installing and configuring Cloud9, RoR, Git, Bitbucket, and Heroku.

Item	Points Per	Percentage
Orientation Exam	10	6%
14 Program Assignments	10	94%
Total		100%

Semester Grade	
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
<=59%	F

COURSE POLICIES

[General Course Policies](#)

[Welcome Letter](#)

COURSE SUBJECTS

[Ruby Programming Concepts](#)

Ruby Environment, Syntax, Classes, Variables, Operators, Comments, IF...ELSE, Loops, Methods, Blocks, Modules, Strings, Arrays, Hashes, Date & Time, Ranges, Iterators, File I/O, and Exceptions

[Ruby on Rails Concepts](#)

Chapter 1 - From zero to deploy

Chapter 2 - A toy app

Chapter 3 - Mostly static pages

Chapter 4 - Rails-flavored Ruby

Chapter 5 - Filing in the layout

Chapter 6 - Modeling users

Chapter 7 - Sign up

Chapter 8 - Log in, log out

Chapter 9 - Updating, showing, and deleting users

Chapter 10 - Account activation and password reset

Chapter 11 - User microposts

Chapter 12 - Following users

