Post Baccalaureate Computer Science Degree

School of Electrical Engineering & Computer Science

Oregon State University

ORIENTATION & ADVISING GUIDE

Welcome to the Post-Baccalaureate Computer Science (CS) Degree Program!

We look forward to working with you to help you achieve your academic and career goals.

PURPOSE OF THIS GUIDE

This guide provides you information about the Professional CS Degree curriculum and various student services. Please save it on your computer for future reference.

ORIENTATION STEPS

This orientation will help you to

1. Sign up for **O**SU **N**etwork **Id**entification (ONID). You will need ONID username and password to get access to all the online services.
2. Review Academic Track options
3. Register for classes
4. Visit the Ecampus website to look at the course syllabi and order Textbooks
5. Technology Tools and Suggestions
6. Learn how to use various programs such as Blackboard
7. Find the academic and key student services
8. Schedule your Advising Appointment

ONID SIGN UP

Sign up for ONID here:

http://onid.oregonstate.edu/

Please note that your ONID password is your GAP (General Access PIN) password that gives you access to online services

EECS WEBSITE

Please visit the EECS website to find information and resources.

http://eecs.oregonstate.edu/online-students/current-students

On the Path to Success
Career Showcase, December 2012

Our career showcases takes place twice a year in June and December.

Our next career showcase is scheduled for December 16, 2013 in Portland, Oregon.
Showcase site and Time: TBD

STUDENT STATUS & MEMBERSHIP IN EECS MAILING LISTS

Once admitted to the university all students enter the College of Engineering as pre-engineering students.

Once you complete the orientation & advising we will have your major code changed as pro-CS students.

You will be automatically subscribed to the **Postbacc-CS list**

CS Post-Baccalaureate Degree Curriculum

Programming Fundamentals	• Programming I, II (CS 161 & CS 162 OR CS 165) • Discrete structures (CS 225) • Data structures (CS 261) • Analysis of algorithms (CS 325)
Databases	• Introduction to databases (CS 275)
Computer systems and Networking	• Computer architecture & assembly language (CS 271) • Operating systems (CS 311) • Introduction to computer networks (CS 372)
Usability	• Introduction to usability engineering (CS 352)
Software Engineering	• Software engineering I, II (CS 361 & CS 362)
Mobile & Web Development	• Web development (CS 494) • Mobile & cloud software development (CS 496)
Capstone Course	• Software Projects (CS 419)

DAY IN THE LIFE

Here is the video that would you a glimpse into the program:

http://youtu.be/Otn5OZ6PEMI

ACADEMIC SUCCESS

Please note that you need to get a C grade or better in all the courses to graduate with a cumulative OSU GPA of 2.25 or higher .

Many of our students juggle work, family responsibilities and school. Here are three key factors that would help you succeed:

1. Be proactive and seek timely help. Don't hesitate to contact the instructor or the TA.
2. Manage your time well. While lectures in online classes are asynchronous you still have to meet various deadlines set by the instructor
3. Take care of your self and be persistent. Don't let the stress build up to a level that will compel you to quit.

ACADEMIC SUCCESS

Net Tutoring: Tutoring is available online through the Blackboard.

http://ecampus.oregonstate.edu/services/student-services/online-tutoring/getting-started.htm

Don't wait to for too long. We are here to help you!

Please email your advisor if you need help.

ACADEMIC TRACK OPTIONS

The Program provides you very flexible options:

1. You can pursue one-year, two-year, three-year or even four-year tracks.
2. Starting from Spring 2013, all the courses in the program are offered all the terms.
3. This helps you to change the academic track any term depending upon your personal situation.
4. The next few slides provide the academic track options.

ONE-YEAR TRACK (CAN BE INTENSE IF YOU ARE WORKING)

Term 1	CS 165 (8) Accelerated Intro to Computer Science	CS 225 Discrete Structures in Computer Science		
Term 2	CS 261 Data Structures	CS 271 Computer Architecture & Assembly Language	CS 352 Introduction to Usability Engineering	CS 494 Web Development
Term 3	CS 275 Introduction to databases	CS 311 Operating Systems	CS 325 Analysis of Algorithms	CS 361 Software Engineering I
Term 4	CS 362 Software Engineering II	CS 372 Intro to Computer Networks	CS 496 Mobile and Cloud Software Development	CS 419 Software Projects

CS 225 is prerequisite or co-requisite for CS 165 or CS 162

TWO-YEAR TRACK (CS 161 & CS 162 OPTION)

	Term 1		Term 2		Term 3		Term 4	
Year 1	CS 161 Intro to Computer Science I		CS 162 Intro to Computer Science II	CS 225 Discrete Structures in Computer Science	CS 261 Data Structures	CS 271 Computer Architecture & Assembly Language	CS 494 Web Development	CS 275 Introduction to databases
Year 2	CS 311 Operating Systems	CS 352 Introduction to Usability Engineering	CS 361 Software Engineering I	CS 325 Analysis of Algorithms	CS 362 Software Engineering II	CS 496 Mobile and Cloud Software Development	CS 372 Intro to Computer Networks	CS 419 Software Projects

CS 225 is prerequisite or co-requisite for CS 165 or CS 162

TWO-YEAR TRACK (CS 161 & CS 162 OPTION WITH 8 CREDITS PER TERM)

	Term 1		Term 2		Term 3		Term 4	
Year 1	CS 161 Intro to Computer Science I	CS 225 Discrete Structures in Computer Science	CS 162 Intro to Computer Science II	CS 352 Introduction to Usability Engineering	CS 261 Data Structures	CS 271 Computer Architecture & Assembly Language	CS 494 Web Development	CS 275 Introduction to databases
Year 2	CS 311 Operating Systems	CS 361 Software Engineering I	CS 362 Software Engineering II	CS 325 Analysis of Algorithms	CS 496 Mobile and Cloud Software Development	CS 372 Intro to Computer Networks	CS 419 Software Projects	

CS 225 is prerequisite or co-requisite for CS 165 or CS 162

TWO-YEAR TRACK (CS 165 OPTION)

	Term 1		Term 2		Term 3		Term 4	
Year 1	CS 225 Discrete Structures in Computer Science		CS 165 (8 credits) Accelerated Intro to Computer Science		CS 261 Data Structures	CS 271 Computer Architecture & Assembly Language	CS 494 Web Development	CS 275 Introduction to databases
Year 2	CS 311 Operating Systems	CS 352 Introduction to Usability Engineering	CS 361 Software Engineering I	CS 325 Analysis of Algorithms	CS 362 Software Engineering II	CS 496 Mobile and Cloud Software Development	CS 372 Intro to Computer Networks	CS 419 Software Projects

CS 225 is prerequisite or co-requisite for CS 165 or CS 162

THREE-YEAR TRACK (CS 161 & CS 162 OPTION)

	Term 1	Term 2		Term 3		Term 4	
Year 1	CS 161 Intro to Computer Science I	CS 162 Intro to Computer Science II	CS 225 Discrete Structures in Computer Science	CS 261 Data Structures	CS 271 Computer Architecture & Assembly Language	CS 275 Introduction to databases	CS 494 Web Development
Year 2	CS 311 Operating Systems	CS 352 Introduction to Usability Engineering		CS 361 Software Engineering I		CS 325 Analysis of Algorithms	
Year 3	CS 362 Software Engineering II	CS 372 Intro to Computer Networks		CS 496 Mobile and Cloud Software Development		CS 419 Software Projects	

CS 225 is prerequisite or co-requisite for CS 165 or CS 162

THREE-YEAR TRACK WITH 165 OPTION

	Term 1	Term 2	Term 3		Term 4	
Year 1	CS 225 Discrete Structures in Computer Science	CS 165 (8 credits) Accelerated Intro to Computer Science	CS 261 Data Structures	CS 271 Computer Architecture & Assembly Language	CS 494 Web Development	CS 275 Introduction to databases
Year 2	CS 311 Operating Systems	CS 352 Introduction to Usability Engineering	CS 361 Software Engineering I		CS 325 Analysis of Algorithms	
Year 3	CS 362 Software Engineering II	CS 372 Intro to Computer Networks	CS 496 Mobile and Cloud Software Development		CS 419 Software Projects	

[1] CS 165 carries 8 credit hours. Rest of the courses carry 4 credits each

FOUR-YEAR TRACK OPTION

	Term 1	Term 2	Term 3	Term 4
Year 1	CS 161 Intro to Computer Science I	CS 225 Discrete Structures in Computer Science	CS 162 Intro to Computer Science II	CS 261 Data Structures
Year 2	CS 271 Computer Architecture & Assembly Language	CS 494 Web Development	CS 275 Introduction to databases	CS 325 Analysis of Algorithms
Year 3	CS 352 Introduction to Usability Engineering	CS 311 Operating Systems	CS 361 Software Engineering I	CS 362 Software Engineering II
Year 4	CS 372 Intro to Computer Networks	CS 496 Mobile and Cloud Software Development	CS 419 Software Projects	

You may take CS 161 or CS 225 the first term. CS 225 is prerequisite for CS 162

PREREQUISITES

Required Course	Credits	Prerequisites
CS 161	4	MTH 111
CS 162	4	CS 161
CS 165[1]	8	MTH 111 CS 225 Corequisite
CS 225	4	MTH 111
CS 261	4	(CS 162 or CS 165) & CS 225
CS 271	4	CS 162 or CS 165
CS 275	4	CS 162 or CS 165
CS 352	4	CS 161 or CS 165
CS 311	4	CS 261 & CS 271
CS 325	4	CS 225 & CS 261
CS 361[2] **(WIC)**	4	CS 261
CS 362	4	CS 261
CS 372	4	CS 261 & CS 271
CS 419	4	CS 311, CS 275
CS 494	4	Computer Literacy
CS 496	4	CS 311

[1] CS 165 is an accelerated introduction to Computer Science and combines contents from CS 161 and CS 162
[2] Writing Intensive Course (WIC)

COURSE DESCRIPTIONS

Course Title	Description	Prerequisites
CS 225: DISCRETE STRUCTURES IN COMPUTER SCIENCE (4)	Formal approach to the logic of computer science, including set theory, methods of proof, discrete probability, sequences, recurrence relations, graph theory, and algorithm analysis.	MTH 111 or Placement Test Score
CS 162: INTRODUCTION TO COMPUTER SCIENCE II (4)	Basic data structures. Computer programming techniques and application of software engineering principles. Introduction to analysis of programs.	CS 161 and CS 225
CS 165: ACCELERATED INTRODUCTION TO COMPUTER SCIENCE (8) Note: Students may take either the CS 161/162 sequence or CS 165, but cannot receive credit for both.)	Overview of the fundamental concepts of computer science. Introduction to problem solving, algorithm development, data types, and basic data structures. Introduction to analysis of algorithms and principles of software engineering. System development and computer programming using procedural/object-oriented paradigms.	MTH 111 and CS 225 (could be co-requisite)

COURSE DESCRIPTIONS

Course Title	Description	Prerequisites
CS 261: DATA STRUCTURES (4)	Complexity analysis. Approximation methods. Trees and graphs. File processing. Binary search trees. Hashing. Storage management	CS 162 or CS 165 & CS 225
CS 271: COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE (4)	Introduction to functional organization and operation of digital computers. Coverage of assembly language; addressing, stacks, argument passing, arithmetic operations, decisions, macros, modularization, linkers and debuggers.	CS 162 or CS 165
CS 352: INTRODUCTION TO USABILITY ENGINEERING	Basic principles of usability engineering methods for the design and evaluation of software systems. Includes the study of human-machine interactions, user interface characteristics and design strategies, software evaluation methods, and related guidelines and standards.	CS 161 or CS 165

COURSE DESCRIPTIONS

Course Title	Description	Prerequisites
CS 275: INTRODUCTION TO DATABASES (4)	Design and implementation of relational databases, including data modeling with ER or UML diagrams, relational schema, SQL queries, relational algebra, user interfaces, and administration.	CS 162 or CS 165
CS 311: OPERATING SYSTEMS	Introduction to operating systems using UNIX as the case study. System calls and utilities, fundamentals of processes and interprocess communication	CS 261 and CS 271
CS 361: SOFTWARE ENGINEERING I (4) Writing Intensive Course	Introduction to the "front end" of the software engineering lifecycle; requirements analysis and specification; design techniques; project management.	CS 261

COURSE DESCRIPTIONS

Course Title	Description	Prerequisites
CS 325: ANALYSIS OF ALGORITHMS (4)	Recurrence relations, combinatorics, recursive algorithms, proofs of correctness.	CS 261 & CS 225
CS 494: WEB DEVELOPMENT (4)	Techniques and tools for designing developing, publishing, and maintaining dynamic websites on the World Wide Web. Hypertext/HTML, scripting, media integration, emerging web technologies. Web security and issues raised by Internet publishing.	Computer Literacy
CS 372: INTRODUCTION TO COMPUTER NETWORKS	Introduction to wired/wireless network principles, organization, topologies, hardware, applications, and protocols in the OSI hierarchy context. Configuration and implementation of local area networks and intranets. Internet protocols, packet forwarding, and routing.	CS 261 and CS 271

COURSE DESCRIPTIONS

Course Title	Description	Prerequisites
CS 496: MOBILE AND CLOUD SOFTWARE DEVELOPMENT (4)	Introduction to the concepts and techniques for developing mobile and cloud applications.	CS 311
CS 362: SOFTWARE ENGINEERING II (4).	Introduction to the "back end" of the software engineering lifecycle implementation; verification and validation; debugging; maintenance.	CS 261
CS 419: Software Projects	The Software project will provide an opportunity for the post-baccalaureate students to demonstrate their proficiency in using key concepts in computer science such as programming fundamentals, databases and software engineering.	Special Approval required. Required to be taken in the final term of the program.

PROGRAMMING RESOURCES

New to Programming? Here are some programming resources:

http://eecs.oregonstate.edu/online-students/current-students/programming-resources

MY DEGREES

MyDegrees is a degree progress checklist program and academic advising tool designed to assist students and advisors in reviewing degree progress.

Use MyDegrees program planner feature to enter your course plan. In the description column, enter your track plan.

To access MyDegrees:

1. Log into MyOSU using your student username and password.
2. Click on the Student tab, under My Student Stuff click "MyDegrees", then click the Submit MyDegrees box to get into MyDegrees.

Need help? Here is a video:

http://oregonstate.edu/registrar/Captivate/Planner.swf

Note: When you are admitted your student status shows as pre-CS student. Your advisor will work with the Registrar office to change your status as professional engineering student in the first term. All the general educations courses will then be removed from the MyDegrees.

TEXTBOOKS

CS 225: Discrete Math & Its Applications by Kenneth Rosen

Edition 7

CS 161/CS 165: *Absolute C++* (5th Ed.). Boston, MA: Addison-Wesley. By Savitch, W. (2012). Digital: ISBN 978-0132855709 Paperback: ISBN 978-0132830713

ISBN 978-0-07-338309-5

BLACKBOARD

Blackboard is a Learning Management Portal through which our online classes are taught.

If you have not used blackboard before please use the following link to learn:

http://ecampus.oregonstate.edu/soc/start/blackboard_login.htm?expand=yes

IMPORTANT BLACKBOARD TIP

Please use only Mozilla Firefox browser to open Blackboard.

1. Beware of this when using Blackboard at a Testing Center and while uploading your tests, assignments, etc. With Assignments and quizzes, if possible save your work on your computer as well.
2. Please visit the testing center to ensure that the computers have the latest windows operating systems.
3. Please ask the testing center staff to download Mozilla Firefox and update the browser with all the plug-ins such as Java.

NOTE: Because of the limitations of Blackboard, your instructor may use other portals as well and she/he will provide instructions.

TAKING TESTS ONLINE – PROCTORING INFORMATION

OSU extended Campus provides information and services. If you need help, please call 800-667-1465 or email ecampustesting@oregonstate.edu

http://ecampus.oregonstate.edu/services/proctoring/

TECHNOLOGY TOOLS

Computer software requirements

PC (strongly recommended)	Mac*
Intel Core i-5 or i-7 (preferred though older ones may work just fine) 4GB RAM Microsoft Windows 7 or 8	Intel Core i-5 or i-7 4GB RAM

** – Must be able to run Windows 7 or 8 either via Terminal Server, Boot Camp, Virtual Box, VMWare Fusion, Parallels, or another solution.*

REGISTRATION

Here is the information you need for Registration:

1. Your OSU ID (which is a number)
2. ONID ID & Password
3. Registration PIN (changes every term)
4. CRN (Course Reference Number) of the course.

NOTE: I will send you the Registration PIN after the orientation.

BOOKMARK THESE PAGES

1. Academic Calendar: Important deadlines for the term such as tuition billing date and last date to add/drop a course.
   http://catalog.oregonstate.edu/ChapterDetail.aspx?key=148
2. CRNS:
   http://ecampus.oregonstate.edu/soc/ecatalog/ecourselist.htm?termcode=all&subject=CS
3. When do I register – registration date & time
   http://catalog.oregonstate.edu/ChapterDetail.aspx?key=374
4. Tuition Reduction Schedule when you drop or withdraw from a course:
   http://oregonstate.edu/fa/businessaffairs/node/89643

REGISTRATION STEPS

1. Go the OSU Online Services Website: http://oregonstate.edu/main/online-services

2. Choose Online Services Login

3. Click on Registration

4. Choose "Register/Add/Drop Classes"

5. In the Add Classes Worksheet enter the CRN of the class or search for online classes. They have WWW section status

STILL NEEDING HELP WITH THE REGISTRATION?

- Registration errors? You may need an override!

  Please email your advisor for assistance.

- If you need help, please watch the following Video demonstration for registration:

http://oregonstate.edu/registrar/Captivate/AddCourse_demo.swf

STUDENT CODE OF CONDUCT

You will hereby agree to maintain an environment free of harassment, threats, insults, or humiliation to the advisor, instructors and members of the class. This includes, but is not limited to threats and intimidations by email; demeaning written or oral comments of personal, sexist or racist nature by email or on discussion boards and other postings in course shells.

Please understand that any violation of Oregon State University Student and Community Standards on your part will lead to a report to the school head and the OSU conduct office.

http://oregonstate.edu/registrar/student-conduct-and-community-standards-0

CAREER SERVICES

http://eecs.oregonstate.edu/online-cs-students/current-students/career-services

FINANCIAL RESOURCES & BILLING

If you are looking for financial aid, please contact the financial aid office at:
http://oregonstate.edu/financialaid/

Financial Aid office FAQ
http://oregonstate.edu/financialaid/faq

Need information about bill payment options? Here is the link:
http://oregonstate.edu/fa/businessaffairs/student/billing

Student Account Suite:
https://admtn.ucsadm.oregonstate.edu/tbp/web/login.jsp

STUDENT SUPPORT SERVICES

- Student Veteran Services

http://oregonstate.edu/veterans/home/

(541) 737-7662
(541) 737-8123

- Disability Access Services

http://ds.oregonstate.edu/current/ecampus.php

(541) 737-4098
(541) 737-7354

PHONE NUMBERS

Student Service	Phone	Email (non-urgent purposes)
Registrar office (Course Add/Drop or Withdraw, etc.)	(541) 737-4331	registrars@oregonstate.edu
Financial Aid	(541) 737-2241	financial.aid@oregonstate.edu
Tuition and Billing	(541) 737-3775	
Proctoring Information	(541) 737-9281 & (800) 67-1465	ecampustesting@oregonstate.edu
Student Veteran Services	(541) 737-7662	Gus.Bedwell@oregonstate.edu
Disability Access Services	(541) 737-4098	disability.services@oregonstate.edu
Academic Advisors	(541) 737-2889 (541) 737-8225	padma.akkaraju@oregonstate.edu shannon.thompson@oregonstate.edu
Academic Advising Front Desk	(541) 737-3617	
OSU Beaver Store	(541) 737-4323	http://osubeaverstore.com/Academics/

Wish you all the best!