

## **IT 211 – Introduction to Applied Programming Autumn, 2016**

Section: 401/410  
Tuesdays & Thursdays  
Location: LOOP  
3:10 pm – 4:40 pm  
Room: CDM 222 (Thursdays)

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Office Hours:  
Tuesdays: (STDC 332) 11:20 AM – 12:50 PM  
Thursdays: (Loop Office CDM #705) 1:30 PM – 3:00 PM

**Text:** Chris Pine, Learn to Program, 2nd. Edition, Pragmatic Programmer, 2009  
Located at: <https://pine.fm/LearnToProgram>

**Software:** Ruby (Version 1.9 or later) – web source will be provided in the first class session.

Description: Introduction to application development and problem solving. Basic programming constructs including control structures, I/O functions and object-based programming. Projects are designed to include small-scale applications using web-services, file processing, databases and application software

**Prerequisites:** IT 130.

### **Learning Domain Description**

IT 211, Introduction to Applied Programming, is included in the Liberal Studies program as a course with credit in the Scientific Inquiry domain. Courses in the Scientific Inquiry domain are designed to provide students with an opportunity to learn the methods of modern science and its impact on the world around us. Courses are designed to help students develop a more complete perspective about science and the scientific process, including: an understanding of the major principles guiding modern scientific thought; a comprehension of the varying approaches and aspects of science; an appreciation of the connection among the sciences; the fundamental role of mathematics in practicing science; an awareness of the roles and limitations of theories and models in interpreting, understanding, and predicting natural phenomena; and a realization of how these theories and models change or are supplanted as our knowledge increases.

### **Learning Outcomes:**

*Students will understand and appreciate the role of science in society and in their lives.*

#### **How Met:**

- Students will be able to identify the role of programming and technology.
- Create programs that can answer everyday questions one encounters.

*Students will understand and appreciate the interrelationships among science, technology and math.*

#### **How Met:**

- Write programs that include mathematical constructs.
- Diagnose problems in computer code by tracing program states, predicting output and explaining any discrepancies between predicted output and actual behavior.

*Students will know that science, technology, and math serve as mechanisms for inquiry into the nature of the universe*

**How Met:**

- Attain the ability to find documentation to learn on your own
- Understand the role of programs and algorithms for solving scientific problems.

*Students will understand the nature of science, technology, and mathematics*

**How Met:**

- Identify limitations of using computer technology for solving problems.

**Writing Expectations**

Writing is integral for communicating ideas and progress in science, mathematics and technology. The form of writing in these disciplines is different from most other fields

Students will learn the proper methods and presentation of coding with respect to the language utilized in class.

In addition, the content the output of programs created is expected to be at as professional a level as the intended user of the program dictates.

**Grading**

<b>Assignment</b>	<b>% of Overall Grade</b>
D2L Discussion Post	5%
Three assignments	50%
Two quizzes (10 points each)	20%
Exam	10%
Final Exam	15%

**The Instructor reserves the right to, at any time, ask that you explain the code or the features in any assignment, and assign credit for the assignment based on your response.**

Students receiving more than 90% of possible points are guaranteed at least an A-, more than 80% at least a B-, more than 70% at least a C-, and more than 60% at least a D.

Tests and quizzes can be made up with a serious documented excuse (e.g. illness, death in the family) and must be arranged as soon as possible. Arrangements involving other excuses require prior permission from the instructor.

The goal of assignments is to practice the concepts taught in class. You are expected to do your own assignments. However, some collaboration with other students is allowed and even encouraged. The following types of collaboration are allowed:

- Discussing strategies for solving a problem
- Explaining why a program does not work
- Reviewing and testing someone else's programs

The following types of collaboration are not allowed:

- Copying someone else's code
- Literally telling someone what code to write

Engaging in these last two types of collaboration will be considered a violation of the university's policy on academic integrity. Violators will receive a 0 for the corresponding assignment and will be reported as required by policy.

Under extraordinary circumstances, late assignments will be accepted up until 2 days following the due date. Late work will be graded with the usual criteria, but only 90% of the total points earned will be awarded. All assigned work must be completed prior to the scheduled beginning time and date of the Final Exam. With the exception of the Final Exam itself, no work will be accepted after the scheduled beginning time and date of the Final Exam.

Tentative Schedule (by week)

1) Chapter 1 – Overview and Software installation	<i>D2L Discussion Post due</i>
2) Chapter 2 Output: Numeric data	
3) Chapter 3 Output: Text Strings	<i>Project 1</i>
4) Chapter 4 Input: User Interactivity and Variables	<i>Quiz</i>
5) Chapter 5 Methods and Math	<i>Project 2</i>
6) Chapter 6 Flow Control	<i>Mid Term Exam</i>
7) Chapter 7 Arrays	
8) Chapter 8 Classes	<i>Quiz</i>
9) Chapter 9 Procedures	<i>Project 3</i>
10) Final Exam	

Final Exam is on **November 22, 2016, from 2:30 PM to 4:45 PM.**

Proctoring of Exams for online students will be arranged and information will be provided.

### *Course Policies*

#### **Changes to Syllabus**

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L or COLWeb and sent via email.

### **Online Course Evaluations**

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in [CampusConnect](#).

### **Academic Integrity and Plagiarism**

This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu/>. If you have any questions be sure to consult with your professor.

### **Academic Policies**

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the [University Academic Calendar](#). Information on enrollment, withdrawal, grading and incompletes can be found at: [cdm.depaul.edu/enrollment](http://cdm.depaul.edu/enrollment).

### **Students with Disabilities**

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: [csd@depaul.edu](mailto:csd@depaul.edu).

Lewis Center 1420, 25 East Jackson Blvd.  
Phone number: (312)362-8002  
Fax: (312)362-6544  
TTY: (773)325.7296

*Course Policies as Suggested by the Dean of Students Office (optional)*

Attendance: Students are expected to attend each class and to remain for the duration. Coming 15 minutes late or leaving 15 minutes early constitutes an absence for the student. The overall grade for participation drops one-third after any absence. Three absences for any reason, whether excused or not, may constitute failure for the course.

Class Discussion: Student participation in class discussions will be measured in two ways. First, students are highly encouraged to ask questions and offer comments relevant to the day's topic. Participation allows the instructor to "hear" the student's voice when grading papers. Secondly, students will be called upon by the instructor to offer comments related to the reading assignments. Students must keep up with the reading to participate in class discussion.

Attitude: A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitude include but are not limited to: talking to others when the instructor is speaking, mocking another's opinion, cell phones ringing, emailing, texting or using the internet whether on a phone or computer. If any issues arise a student may be asked to leave the classroom. The professor will work with the Dean of Students Office to navigate such student issues.

Civil Discourse: DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be [Socially Responsible Leaders](#). It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student. Any instances of disrespect or hostility can jeopardize a student's ability to be successful in the course. The professor will partner with the Dean of Students Office to assist in managing such issues.

Cell Phones/On Call: If you bring a cell phone to class, it must be off or set to a silent mode. Should you need to answer a call during class, students must leave the room in an undistruptive manner. Out of respect to fellow students and the professor, texting is never allowable in class. If you are required to be on call as part of your job, please advise me at the start of the course.