

USF Sarasota-Manatee - Substantive Undergraduate Course Proposal Form

1. College/School Contact Information

<u>Tracking Number</u> 7	<u>Date & Time Submitted</u> 2012-11-13 14:44:32.0	
<u>Discipline</u> Information Technology	<u>College/School</u>	<u>Budget Account Number</u> 380700004
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2. Course Information

<u>Prefix</u> COP	<u>Number</u> 3375	<u>Full Title</u> Programming Concepts II	
Is the course title variable?		N	
Is a permit required for registration?		N	
Are the credit hours variable?		N	
<u>Credit Hours</u> 4	<u>Section Type</u> Class Lecture (Primarily)	<u>Grading Option</u> Regular	
<u>Abbreviated Title</u> (30 characters maximum) Programming Concepts II			

5. Prerequisites

COP 2030 Programming Concepts I

6. Corequisites

none

7. Co-Prerequisites

none

8. Course Description

This course focuses on the Python language and covers its features and capabilities in depth.

9. New Course Information

<u>New Prefix</u> N/A	<u>New Number</u> 3375	<u>New Full Title</u> Data Structures and Algorithms w/Python	
Is the course title variable?		N	
Is a permit required for registration?		N	
Are the credit hours variable?		N	
<u>New Credit Hours</u> N/A	<u>New Section Type</u> Class Lecture (Primarily)	<u>New Grading Option</u> Regular	
<u>New Abbreviated Title</u> (30 characters maximum) Data Structures w/Python			

12. New Prerequisites

N/A

13. New Corequisites

N/A

14. New Co-Prerequisites

N/A

15. New Course Description

N/A

16. **Justification**

A. Nature of change(s)

Change course name for COP 3375 from Programming Concepts II to Data Structures & Algorithms w/Python. This is more descriptive of the area and topics covered in the course.

B. Indicate how this course will strengthen the Undergraduate Program.

C. What specific area of knowledge is covered by this change that is not covered by courses currently listed.

D. What is the need or demand for this course? {Here you must indicate if this course is part of a required sequence in the major} What other programs would this course?

E. What qualifications for training and/or experience are necessary to teach this course?

F. What will be the effect of this change on the program and on the students? Do you plan to drop a course if this change is made? (If dropping/deleting a course please complete the nonsubstantive course change form.)

17. **Other Course Information**

A. Objectives

The student will learn the features and capabilities of Python and will prefer to use it for program development wherever possible.

B. Learning Outcomes

C. Major Topics

- Native Data types - Comprehensions - Strings - Regular Expressions - Closures and Generators - Classes and Iterators - Unit Testing - Refactorng - Working with Files - XML - Serializing Python Objects - HTTP Web Services - Packaging Python Libraries

D. Textbooks

Required: Mark Pilgrim, Dive into Python 3. Apress, 2009 ISBN-13: 978-1-4302-2415-0. References: Mark Lutz, Learning Python, 4th edition. OReilly, 2009 ISBN-13: 978-0-596-15806-4. Mark Lutz, Programming Python 3rd edition. OReilly, 2006 ISBN-13: 978-0-596-00925-0.