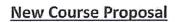
# **Curriculum Committee**





School or Division	School of Business and Technology			
Program or Certificate	Information Systems Technology			
Proposed by (faculty only)	George Kodsey & Mary Myers			
Presenter (faculty only)	George Kodsey			
	ove must be present at the Curriculum Committee meeting or			
	or Division and must be submitted for a later date.			
Submission date	3/19/2020			
Course prefix, number, and title	COP3538 – Data Structures for IT			
All Curriculum proposals require approval	of the Curriculum Committee and the Provost. Final approval			
or denial of a proposal is reflected on the				
	Manufacture Company Co			
Approve	☐ Do Not Approve			
Man C. Mycis	4/8/2020			
Curriculum Committee Chair Signature	Date			
Approve Approve	☐ Do Not Approve			
hlerm	5-21-2020			
Provost Signature	Date			
All Curriculum proposals require review by the Office of Accountability & Effectiveness.				
Reviewed				
Jum byl	5/21/2020			
Office of Accountability & Effectiveness Sig	nature Date			

### Section I, Important Dates and Endorsements Required

**NOTE:** Course and Program changes must be submitted by the dates listed on the published Curriculum Committee Calendar. Exceptions to the published submission deadlines must receive prior approval from the Provost' Office.

Term in which approved action will take place	Fall 2021			
Provide an explanation below for the requested exception to the effective date.				

Any exceptions to the term start date requires the signatures of the Academic Dean and Provost prior to submission to the Dropbox.		
Signature	Date	
Signature	Date	
	Dropbox. Signature	

Required Endorsements	Type in Name	Select Date
Department Chair or Program	Dr. Mary Myers	3/17/2020
Coordinator/Director		
Academic Dean or Provost	Dr. Debbie Psihountas	3/17/2020

List all faculty endorsements below. (Note that proposals will be returned to the School or Division if faculty endorsements are not provided).

Prof Melinda Lyles, Dr. Mary Myers, Dr. George Kodsey, Dr. Roger Webster

Has the Libraries' Collection Manager been contacted about the new course and discussed potential impacts to the libraries' collections?

No

## Section II, New Course Information (must complete all items)

List course prerequisite(s) and minimum grade(s)	COP2800 Java Programming OR
	COP 2000 Java Programming OK
(must include minimum grade if higher than a "D").	COP2360 C# Programming I with a grade of "C" or
<i>b j</i> .	better.
Provide justification for the proposed	Students should have taken an object-oriented
prerequisite(s).	programming class before studying Data Structures.
Will students be taking any of the prerequisites	No
listed for this course in different parts of the	
same term (ex. Term A and Term B)?	
List course co-requisites.	
Provide justification for the proposed co-	
requisite(s).	
Is any co-requisite for this course listed as a co-	
requisite on its paired course?	
(Ex. CHM 2032 is a co-requisite for CHM 2032L, and	
CHM 2032L is a co-requisite for CHM 2032)	O III
Course credits or clock hours	3 course credits
	Must pass with a "C" or better.
Contact hours (faculty load)	3
Are the Contact hours different from the	No
credit/lecture/lab hours?	
Select grade mode	Standard Grading (A, B, C, D, F)
Credit type	College Credit
Possible Delivery Types (Online, Blended, On	Online, Blended, On Campus
Campus)	
Course description (provide below)	•

#### Course description (provide below)

This course introduces the student to the basic concepts of data structures in software development including lists, stacks, queues, binary search trees, binary trees, hash tables, and internal searching and sorting. It also introduces the student to running time of a program, and algorithm efficiency.

General topic outline (type in outline below)

- Choosing among the various data structures.
- Data structures use in practice.
- Efficiency of a data structure.
- How to determine the efficiency of an algorithm.
- Recursive data structures and algorithms.
- Lists, stacks, queues
- Binary trees and binary search trees,
- Hash tables
- Internal searching
- Sorting.

**Learning Outcomes:** For information purposes only.

#### IV. Course Competencies, Learning Outcomes and Objectives

#### A. General Education Competencies and Course Outcomes

1. Integral *General Education Competency or competencies*: General Education Competency: **Evaluate** 

Course Outcomes or Objectives Supporting the General Education Competency Selected:

- Students will select appropriate built-in data types and library data structures (abstract data types) to model, represent, and process program data.
- Students will write programs that use data structures (built-in, library, and programmer-defined): strings, vectors, lists, and maps.
- Students will analyze the performance of different implementations of data structures.
- 2. Supplemental General Education Competency or competencies: Communicate
- Students will explain appropriateness of selected data structures.
- B. In accordance with Florida Statute 1007.25 concerning the state's general education core course requirements, this course meets the general education competencies for ....

  Part B would only be included in the course outlines of those courses are included in the FSW Catalog as a General Education Core Course. If this is not a core course, then outline letter C would become B.

C.	Other	Course	Obje	ctives	/Stanc	lards

Copy and Paste the SCNS Course Profile Description below (http://scns.fldoe.org/scns/public/pb\_index.jsp).

BASIC CONCEPTS OF RUNNING TIME OF A PROGRAM, DATA STRUCTURES INCLUDING LISTS, STACKS, QUEUES, BINARY SEARCH TREES, BINARY TREES, HASH TABLES, AND INTERNAL SEARCHING AND
SORTING.

ICS code for this course	ADVANCED AND PROFESSIONAL - 1.16.07 -
	COMPUTER & INFO SCIENCE
Institutional Reporting Code	11607 COMPUTER AND INFOR SCIENCE
	A CONTRACTOR OF THE CONTRACTOR
Degree Attributes	BAS - BAS COURSE
Degree Attributes (if needed)	Choose an item.
Degree Attributes (if needed)	Choose an item.
Degree Attributes (if needed)	Choose an item.
Should any major restriction(s) be listed on this	Yes
course? If so, select "yes" and list the appropriate major restriction code(s) or select "no".	BAS-IST
Is the course an "International or Diversity	No, not International or Diversity Focus
Focus" course?	No, not international of Diversity Focus
Is the course a General Education course?	No
Is the course a Writing Intensive course?	Yes
If Replacing a course, combining a Lecture/Lab	
or splitting a C course – Is there a course	
equivalency?	
Is the course repeatable*?	No
(A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3 credit hour course can be repeated 1 time and a student can earn a maximum of 6 credits).  *Not the same as Multiple Attempts or Grade Forgiveness	
Do you expect to offer this course three times or	No
less (experimental)?	

Impact of Course Proposal		
Will this new course proposal impact other courses,	No	
programs, departments, or budgets?		
If the answer to the question above is "yes", list the		
impact on other courses, programs, or budgets?		
Have you discussed this proposal with anyone (from other departments, programs, or institutions)		
regarding the impact? Were any agreements made? Provide detail information below.		

## Section III, Justification for proposal

Provide justification (below) for this proposed curriculum action.

This course is being proposed as an update to the curriculum in the BAS- Information Technology Systems degree. Data structures are an important concept in programming.