

Florida State College at Jacksonville
Curriculum Proposal Form

Proposal Information (Place an "X" in the box next to those that are applicable.)

Title	COP 2551 (Intro to Object Oriented Programming w/Java) and COP 2805 (Advanced Java) Course Modifications				
	Action(s)	<input type="checkbox"/> New Course	<input checked="" type="checkbox"/> x	<input type="checkbox"/> Modify Course	<input type="checkbox"/> Inactivate Course
		<input type="checkbox"/> New Program	<input type="checkbox"/> Modify Program	<input type="checkbox"/> Other	Use this space to describe action.

Faculty Proposal Originator(s)

Name(s)	David Singleary, Pamela Brauda		
Telephone No.	646-2212	Email	dasingle@fscj.edu
Signature			Date 8/25/16

Originator(s) Campus Dean/Program Manager

Name(s)	James Grant		
Provision	<input checked="" type="checkbox"/> Support	<input type="checkbox"/> Do Not Support	<input type="checkbox"/> Support with Conditions Noted
Conditions			
Signature			Date 8/31/16

Campus President/Executive Chair

Name(s)	Marie Grage		
Provision	<input checked="" type="checkbox"/> Support	<input type="checkbox"/> Do Not Support	<input type="checkbox"/> Support with Conditions Noted
Conditions			
Signature			Date 7/6/16

Associate Vice President or Executive Dean

Name(s)	Linda Woodward		
Provision	<input checked="" type="checkbox"/> X Support	<input type="checkbox"/> Do Not Support	<input type="checkbox"/> Support with Conditions Noted
Conditions			
Signature			Date 9/19/16

Curriculum Committee Chair (Faculty Senate Chair)

Name(s)	Dr. John Woodward		
Provision	<input checked="" type="checkbox"/> X Support	<input type="checkbox"/> Do Not Support	<input type="checkbox"/> Support with Conditions Noted
Conditions			
Signature	approved via electronic vote		Date 10/20/2016

Vice President of the College/Provost or Designee

Name(s)	Dr. John Wall		
Provision	<input checked="" type="checkbox"/> Support	<input type="checkbox"/> Do Not Support	<input type="checkbox"/> Support with Conditions Noted
Conditions			
Signature			Date 10/25/16

Curriculum Services Only CS20150730	Date Received by Curriculum Services: 9-21-2016	Proposal Assigned Tracking Number: 2016-08
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CURRICULUM ACTION INFORMATION

(For assistance, contact Curriculum Services at 632-3273. The curriculum package will be returned if incomplete)

1. **Identify the effective semester for implementation:** Spring 2017 (20172)
This term should be a future term that would not affect current students negatively. All actions in this package will be effective during the term indicated, unless otherwise reflected. Example: Fall Term, 2012 (20131). Please refer to SACS guidelines in item 5 and Financial Aid guidelines in item 6 when selecting appropriate effective semester.
2. **Program proposals** require the following: Program Information (*Program layout for college catalog must be included-see most recent catalog for format and inclusion, you may request from Curriculum office*) OCP and workforce credit information must be included for all PSAV programs. **If applicable program layout must include information about “Record of Conviction of a Crime”, drug screen, background check, immunizations and any other information required for licensing or certifying agents.** All new programs must include information regarding Program Integrity.

All new programs and program modifications with significant changes must include a copy of the program assessment plan. Advisory committee minutes, detailing employer support for the new program or changes should also be included if applicable. Curriculum packages missing these elements if applicable to the program will be considered “incomplete” until received.

(Please “X” that you have included the following with your curriculum submission or indicate “n/a”):

N/A Program Assessment Plan (required for new programs and significant program modifications)
N/A Advisory Committee Minutes (if applicable, required for support of new program or requested changes)

Complete the following for all program submissions:

Program Title: Computer Information Technology
Program Code: 2153 (for new programs, please contact Curriculum Services for code assignment)
Degree Type: Associate in Science
State CIP number: 1511010307 Federal CIP number: 110103

Program Title: Information Technology Management
Program Code: S301 (for new programs, please contact Curriculum Services for code assignment)
Degree Type: Bachelor of Applied Science
State CIP number: 1101110991 Federal CIP number: 111099

School and Area (used for College Catalog): School of Science, Technology, Engineering and Mathematics

(New programs only, unless State requires change)
TABE SCORES (must be included for all new PSAV programs): N/A
SOC NAV# (if appropriate, assigned by MEI): N/A

Program information from most recent catalog must be included with changes identified.

Please note: If a program is no longer active or students will not be able to complete the program as originally registered, Program Inactivation form and paperwork must be submitted to Curriculum Services.

3. **Limited Access** - Limited Access programs are those that limit the admission of prospective students on the basis of capacity (i.e., the number of students whom the program can accommodate because of available seats).

Is this program limited access? _____ Yes No

If yes, please describe criteria.

4. **Additional Program Requirements:** N/A

(1.) Selective Access- Selective access programs are those that admit prospective students who meet specific admissions criteria, including, without being limited to, grade point average (G.P.A.), entrance exams, scores, letters of application, letters of reference and/or professional background criteria (e.g., criminal background check, drug screening, medical examination, and/or professional licensure or certification).

If this program is selective access, list requirements here, or you may insert on the catalog page included in this proposal.

(2.) Occupation and Salary - The following information is required by the FLDOE to provide detailed information to students leading to occupation and salary (must be included for all new programs or to submit changes to existing information).

For each of your Programs of Study, take the salary information from the Florida Department of Economic Opportunity, Occupational Employment and Wages <http://www.floridawages.com/eds.php> for each Standard Occupational Code (SOC) associated with your program of study.

SOC Code: 15-1151

Job Occupation: Computer User Support Specialists

Entry Salary: \$29,387

Median Salary: \$42,531

SOC Code: 15-1121

Job Occupation: Computer Systems Analysts

Entry Salary: \$54,344

Median Salary: \$79,756

SOC Code: 15-1131 (SOC not listed under Duval County, data from Alachua County)

Job Occupation: Computer Programmers

Entry Salary: \$47,549

Median Salary: \$73,890

SOC Code: 15-1199

Job Occupation: Computer Occupations, All Other

Entry Salary: \$38,949

Median Salary: \$77,962

Questions 5-7 are for new programs, substantially modified programs only, please review questions to assure you have met compliance and questions do not apply to this proposal submission.

5. **SACS Information** is required for all new and substantially modified programs: N/A

Please answer the following questions to determine if you should complete the **substantive change intake form**:

(1.) Does this involve development of a new degree or certificate program?

(2.) Does this new degree or certificate program involve a contract, MOU, grant, or consortium for the development or construction of all or part of a program or certificate? (This applies whether the College is outsourcing instruction or our College is providing the instruction for another organization or company.)

(3.) Will this new degree or certificate program be offered via distance education?

(4.) Does this involve instruction of courses delivered by Florida State College at Jacksonville instructors/employees at an off-campus location?

(5.) Does this involve the closure of a program or certificate?

If you answered yes to one or more of the self-assessment questions above, please complete the **substantive change intake form** found on the College's website: <http://www.fscj.edu/district/institutional-effectiveness/coc-substantive-chg.php> and return it, along with a copy of the curriculum proposal, via e-mail to the Office of Institutional Effectiveness and Accreditation. New programs or programs that require substantive change will require more time for approval. Please factor in time in implementation date.

6. **Financial Aid** (State requires 90 days response time on all **new eligible program**). Please identify by "yes or no" if this program is eligible for Financial Aid or any other Federal Funding. If so, identify specifics. **N/A**

A financial aid eligible program would be:

At a school that qualifies as an institution of higher education, the following types of programs are eligible for federal student aid purposes:

- Program leads to an associate, bachelor's, professional, or graduate degree.
- Program of at least 2 academic years in duration that is acceptable for full credit toward a bachelor's degree,
- Program is at minimum of 1 academic year in duration that leads to a certificate, degree, or other recognized credential and prepares students for gainful employment in a recognized occupation (at least 600 clock hours or 24 credit hours).

If you answered yes to any of the above, this program must be SACS and state of Florida approved. Please make sure your effective term incorporates length of time to get appropriate approval.

7. Is this program identified as **gainful employment** (yes or no, include explanation)? _____ Yes No

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8. **Course Information** (Course Information includes (if applicable) (list prefix, number and title, credit hours and contact hours. Course Outlines must be included for all new and modified courses.
- a. **New Courses:** (SCNS website: http://scns.fldoe.org/scns/public/pb_index.jsp will assist in course number selection.) List recommended prefix/number, title, credit hours, and contact hours as appropriate. (example: ENC 1101 English Composition I 3 credit hours/3 lecture hours) **N/A**
- b. **Course Modifications:** (course outlines are located at: <http://curriculum.fscj.edu/> and may be used to insert in package so modifications can be applied. Please make sure all changes are shown on outlines.) Modifications should be shown with strike-thru and either **RED** font for add or **highlights**, but changes should be clear. **DO NOT USE "TRACK" CHANGES IN WORD.**) (example: TRA 2222 Transportation I, change title to: Transportation; credits hours from 3 to 4)
- **COP 2551C Introduction to Object-Oriented Programming w/Java <- Add "C" Suffix"**
 - **COP 2805C Advanced Java <- Add "C" Suffix"**
- c. **Course Inactivations** (list prefix and number of each course): **N/A**
9. **Identify if this is a General Education Requirement and if required** specified Category (Communication; Humanities; Mathematics; Natural Sciences (Biological or Physical, option A or B if appropriate) or Social & Behavioral Sciences.) – **ALL GER REQUIRED COURSES MUST BE SUBMITTED TO GER-SUBCOMMITTEE FOR APPROVAL PRIOR TO SUBMISSION TO CURRICULUM COMMITTEE.** **N/A**

10. **Effectiveness:** Please describe how current and past students are affected by this change, indicating how you plan to identify and resolve individual issues and how you plan to communicate these changes to affected students.
Current and past students will not be affected by this change.
11. **Method of Instruction:** Should this course be offered in distance learning or other unique instructional format (please specify which format)? Why or why not? For assistance, see website: **N/A**
<http://www.fscj.edu/mydegree/Future-Students/Academics/Distance-Learning-and-Online-Programs.html>
12. **Background (answer the following questions):**
- Is this a state requirement? **No**
 - What is the requirement and why must we implement it? **COP 2805: update required prerequisite to allow comparable course (COP 2551), to also include recent technology changes**
 - Has history shown students need this course/program for some reason? **Yes, this course is needed for technical certification, associates degrees, and career preparation in the programming field**
 - Will this meet some specific workforce, university transfer or student success need? **Yes, these modifications will allow current students who have completed COP 2551 to register for the course and provide updated technology instruction.**
 - Are there partners, grant requirements, faculty collaborations or other reasons leading to the development of this course/program? **N/A**
 - Please add any additional information to provide background for this submission.
Adding "C or better" to COP 2551 establishes a minimal core competency in basic procedural programming (COP1000) for access into the Object-Oriented Programming course offerings (Java, C++, C#). Adding "C or better" to COP 2805 is establishing the same minimal competency in Java (COP 2551) for entry in the more rigorous advanced Java course. This requirement is currently used for COP2334 (Intro to Object-Oriented Programming Using C++). This submission is continuing the incorporation of this change by adding it to COP2551 and COP2805.
13. **Rationale/need for the above action(s).**
- Is there a need for this course/program in our service district? **I.T. is a targeted career field for growth in Northeast Florida.**
 - How will this impact student success for upper division instruction or job placement? **These courses are part of a technology program that prepares students for careers in I.T.**
 - If the College already has a similar course/program, why are we developing this program/course and what are the differences between the programs and courses? **N/A**
 - How many students and what businesses or transfer institutions will benefit? **Approximately 150 currently enrolled students and perhaps some past students who have graduated will benefit.**
 - Does this course/program support a College goal or initiative? **Yes, it will support retention. Students are now able to complete a two-course sequence in Java programming. Without this course, some students transfer to other schools to take second and third courses in Java programming.**
 - Please add any additional information to provide rationale for this submission.
The IT Advisory Committee has requested that Florida State College at Jacksonville continue to offer and update courses covering Computer Information Technology. We have had great success placing students in high paying career jobs in North Florida. The small and large business community is growing in North Florida. These courses provide students the technical background to design, build and maintain IT systems represented by our business community using modern programming languages. These changes will also address the need to keep instruction in these languages current with respect to updated technologies.
14. **Others Programs Impacted:** Programs or courses affected by this proposal: Identify other existing programs of study or courses that this proposal will affect, and explain how they will be affected. (Program title, program code, required or elective).
- The following programs offer the courses presented in this update:
- a. Computer Information Technology (2153) (A.S.) – COP 2551 and COP 2805
 - b. Web Development Specialist (6954) (T.C.) (Local Certificate) – COP 2551
 - c. Database Development Specialist (6955) (T.C.) (Local Certificate) – COP 2551
 - d. Computer Programming Specialist (6956) (T.C.) (Local Certificate) – COP 2551 and COP 2805
 - e. Information Technology Management (S301) (B.A.S.) – COP 2551

15. **Articulations:** If there are existing internal or external (inter-institutional) articulation agreements that will be impacted by this proposal request, please identify and contact as appropriate: **N/A**
- Courses intended for transfer and External Upper division articulations (2+2): Contact Liberal Arts Department at 632-3170.
 - Internal articulations (PSAV to AS) and external articulations (Industry certification to AS): Contact Workforce Development at 632-3363 to update agreement. Copies of active internal and external agreements can be found here - <https://www.dropbox.com/sh/o39aqev4wqlbny8/AAC2KS5TnxuHUBTDYfoXvGfa?dl=0>
16. **Financial Information:** Special fees: A Special Fee Request form must be completed and sent to Finance, Attention: Controller. http://www.fccj.org/campuses/mccs/business_services/financial/forms/pdf/special-fee-request.pdf Budget and Department must be filled in for all new programs and courses. Please contact the Director of Budget and Financial Planning at 632-3142 with any budget questions. **N/A**

Budget number: **N/A** **Department:** **N/A**
Must be provided for all NEW programs or curriculum package will not go for recommendation.

17. **Fiscal Notes:** This response must include specific information on the financial impact to students and the institution. This section should be concise, unless there are special circumstances related to the course/program. Please answer the following questions. *If answer yes, explanation must be included.
- Will there be unusual costs to students? **No**
 - Are faculty salaries to teach course/program higher or lower than standard rates? **No**
 - Will additional staff or faculty be required, and if so, what are the costs to the institution? **No**
 - Will the institution have to purchase additional equipment, supplies, software, and/or materials not currently owned by the College? **No**
 - Are there grant or business partnerships that will provide funds to establish the course/program? **N/A**
 - Will business partnerships cover the course/program costs? **N/A**

18. **Evaluation:** This response requests specific information on how you will assess the effectiveness of the course/program as it benefits students and the college. This section is also concise but should address the following: **credit transfer course:** review of student enrollment, completion and grades, as well as students ability to move to higher level courses if applicable; **credit or non-credit workforce:** review of student enrollment, completion, job placement, as well as business involvement in development, revision and evaluation of the course/program and student success; and **adult education courses** should include the same information as credit transfer courses but should also include job placement analysis.

Program staff will track student completion rates, retention rates, and persistence rates. Student enrollment, completion, job placement will be shared with advisory committee members and prospective students. All programs affected annually participate in the college program review process.

19. Do you feel that this proposal will have any special impact on the recruitment and retention of disadvantaged students? If so, please explain. **N/A**
20. Answer the following (if appropriate). Earn credit how many times: **1**
 Writing Requirements course: Yes **X** No
 Grading Method or any special instructions (if other than standard): **Standard**

According to APM 09-0304-Curriculum Approval Process. The curriculum package with appropriate attachments must be e-mailed to curriculum@fccj.edu when finalized. If you have any questions, please call. The curriculum services office is located at Administrative Offices, 301K.

FLORIDA STATE COLLEGE AT JACKSONVILLE
COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: COP 2551**C**

COURSE TITLE: Introduction to Object Oriented Programming with Java

PREREQUISITE(S): COP 1000 **with a 'C' or better**

COREQUISITE(S): N/A

STUDENT ADVISING NOTES: N/A

CREDIT HOURS: 3

CONTACT HOURS/WEEK: 4

CONTACT HOUR BREAKDOWN:

Lecture/Discussion: **3**

Laboratory: **1**

Other: ~~4~~ (Lecture/Lab Combination)

FACULTY WORKLOAD POINTS: 3.7

STANDARDIZED CLASS SIZE ALLOCATION: 24

CATALOG COURSE DESCRIPTION:

This course introduces the principles and practices of object oriented (OO) programming. Topics include user interface and problem data classes; class versus instance properties and methods; abstraction; encapsulation, inheritance and multiple inheritance; polymorphism; software design techniques; and problem solving. The concepts are utilized in numerous programming projects.

SUGGESTED TEXT(S): Janson, R., Introduction to Java,
~~ISBN: 978-0-9664-2213-9~~
Most current **Latest** edition, Janson Industries

Lewis and Loftis, Java Software Solutions
Most current **Latest** edition, Pearson

Liang, Intro to Java Programming, Brief Version
Most current **Latest** edition, Pearson

Hortsmann's Big Java: Early Objects
Most current **Latest** edition, Wiley

Gaddis, Starting Out with Java: Early Objects
Most current **Latest** edition, Pearson

Liang, Y. Daniel. Intro to Java Programming,
Comprehensive Version (~~10th~~ **Latest** Edition)
ISBN-13 9780133761313
Online Version ISBN-13 9780134167008

IMPLEMENTATION DATE:

Fall Term 2006 (20071)

REVIEW OR MODIFICATION DATE:

Fall Term 2003 (200041)

Spring Term, 2005 (20052)

Fall Term, 2007 (20081)

Fall Term, 2011 (20121) – Proposal 2011-51

Spring Term, 2016 (20162) – update textbook selection

Spring Term, 2017 (20172) – Proposal 2016-03

COURSE TOPICS	CONTACT HOURS PER TOPIC
I. Introduction to Java Programming	3
A. Overview of the Java Platform & Brief History	
B. How the Java 2 SDK Tools Find Files	
C. Entering, Commenting and Running a Program	
D. Packaging a program for Distribution	
II. Elementary Programming Concepts	3
A. Variables, Identifiers and Keywords	
B. Expressions, Constants and Statements	
C. Methods	
D. Console I/O	
III. Data Types	4 8
A. Primitive and Reference Types	
B. Numerical Data, Characters and Strings	
C. Arrays	
D. Strings	
IV. Classes and Packages	4 10
A. Classes, Object Oriented Programming and Java Classes	
B. Defining and Using a Defined Class	
C. Overloading Methods, Object Reference and Static Members	
D. Using Packages	
E. Instantiation	
V. Inheritance and Polymorphism	12 8
A. Extending Classes and Implementing Interfaces	
B. Constructors and Inheritance	
C. Overriding Methods	
D. Abstract Methods and Polymorphism	
VI. Exceptions	4 2
A. Encapsulating Exceptions in try Blocks	
B. Throws and Catching Exceptions	
C. Completing a Try Block with a Finally Clause	
VII. Processing with Servlets and JSPs	4-9 5
A. MVC (Model-View-Controller) Architecture	
B. Deploy a Server-Based Application	
VIII. Database Input, Output, Sorting, Searching – DB I/O and SQL Basics	8 4
IX. Selection Statements	4
X. Repetition Statements	2 4

COURSE TOPICS

CONTACT HOURS
PER TOPIC

- XII. Introduction to Graphical User Interfaces
 - A. Main Features and Terminology of a GUI
 - B. Java Foundation Classes and Event Model

8

- XIII. Generating Web-Style Documentation (JavaDocs)

1

Total Hours: 60

REPLACEMENT PAGE

PROGRAM TITLE: Computer Information Technology

COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 1511020100

Program Frameworks can be found at the following website: <http://www.fldoe.org/workforce/dwdframe/>

PROGRAM TITLE: Web Development Specialist (Local Certificate)

COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 0511080103

Program Frameworks can be found at the following website: <http://www.fldoe.org/workforce/dwdframe/>

PROGRAM TITLE: Database Development Specialist (Local Certificate)

COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 0511080103

Program Frameworks can be found at the following website: <http://www.fldoe.org/workforce/dwdframe/>

PROGRAM TITLE: Computer Programming Specialist (Local Certificate)

COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 0511080103

Program Frameworks can be found at the following website: <http://www.fldoe.org/workforce/dwdframe/>

PROGRAM TITLE: Information Technology Management

COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 1101110991

Program Frameworks can be found at the following website: <http://www.fldoe.org/workforce/dwdframe/>

SECTION 1			
Course Prefix and Number:	COP 2551 C	Semester Credit Hours (Credit):	3
		Contact Hours (Workforce):	
Course Title:	Introduction to Object Oriented Programming with Java		

SECTION 2a (To be completed for General Education courses only.)	
TYPE OF COURSE (Place an "X" in the box next to those that are applicable.)	
<input type="checkbox"/>	General Education Core (If selected, core discipline area will be identified in Section 4.)
<input type="checkbox"/>	General Education (If selected, you must also complete Section 4, Section 5, and Section 8)

SECTION 2b					
TYPE OF COURSE (Place an "X" in the box next to those that are applicable.)					
<input checked="" type="checkbox"/>	A.A. Elective	<input checked="" type="checkbox"/>	A.S. Required Course	<input checked="" type="checkbox"/>	A.S. Professional Elective
<input type="checkbox"/>	A.A.S. Required Course	<input type="checkbox"/>	A.A.S. Professional Elective	<input checked="" type="checkbox"/>	Technical Certificate
<input type="checkbox"/>	PSAV/Clock Hour/Workforce	<input type="checkbox"/>	Development Education	<input type="checkbox"/>	Apprenticeship
<input type="checkbox"/>	Upper Division/Bachelors	<input type="checkbox"/>	Other:	If selected, use this space to title "other" option.	

SECTION 3									
INTELLECTUAL COMPETENCIES (Place an "X" in the box next to those that are applicable.)									
<input checked="" type="checkbox"/>	Reading	<input checked="" type="checkbox"/>	Speaking	<input checked="" type="checkbox"/>	Critical Analysis	<input checked="" type="checkbox"/>	Qualitative Skills	<input type="checkbox"/>	Scientific Method of Inquiry
<input checked="" type="checkbox"/>	Writing	<input checked="" type="checkbox"/>	Listening	<input checked="" type="checkbox"/>	Information Literacy	<input checked="" type="checkbox"/>	Ethical Judgement	<input checked="" type="checkbox"/>	Working Collaboratively

SECTION 4 (To be completed for General Education courses only.)					
GENERAL EDUCATION DISCIPLINE AREA (Place an "X" in the box next to those that are applicable.)					
<input type="checkbox"/>	Communications	<input type="checkbox"/>	Humanities	<input type="checkbox"/>	Mathematics
<input type="checkbox"/>	Social and Behavioral Sciences	<input type="checkbox"/>		<input type="checkbox"/>	Natural Sciences

SECTION 5 (To be completed for General Education courses only.)					
GENERAL EDUCATION LEARNING OUTCOME AREA (Place an "X" in the box next to those that are applicable.)					
<input type="checkbox"/>	Communication	<input type="checkbox"/>	Critical Thinking	<input type="checkbox"/>	Information Literacy
<input type="checkbox"/>	Scientific and Quantitative Reasoning	<input type="checkbox"/>		<input type="checkbox"/>	Global Sociocultural Responsibility

SECTION 6		
LEARNING OUTCOMES	TYPE OF OUTCOME (General Education, Course or Program)	METHOD OF ASSESSMENT
Master Java SDK environment for software development	Course	Exams, Grading of Student Programs
Construct simple Java programs	Course	Exams, Grading of Student Programs
Develop Java programs with numeric and String variables	Course	Exams, Grading of Student Programs
Develop Servlets and JSPs	Course	Exams, Grading of Student Programs
Develop Java Packages	Course	Exams, Grading of Student Programs
Develop Java programs with RDBMS I/O	Course	Exams, Grading of Student Programs
Develop Java programs with Inheritance	Course	Exams, Grading of Student Programs
Develop Java programs with Polymorphism	Course	Exams, Grading of Student Programs
Develop Java programs using arrays of objects	Course	Exams, Grading of Student Programs

SECTION 7			
Faculty name(s):	Robert W. Janson	Pamela Brauda, Gail Gehrig, David Singletary	Date: 08/01/2006 08/23/2016

CS20150615

FLORIDA STATE COLLEGE AT JACKSONVILLE
COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	COP 2805C
COURSE TITLE:	Advanced JAVA Programming
PREREQUISITE(S):	COP 2800 with a 'C' or better or COP 2551C with a 'C' or better
COREQUISITE(S):	None
CREDIT HOURS:	3
CONTACT HOURS/WEEK:	4
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	1
Other:	4—(Lecture/Lab Combination)
FACULTY WORKLOAD POINTS:	3.7
STANDARDIZED CLASS SIZE ALLOCATION:	24

CATALOG COURSE DESCRIPTION:

This course is a second semester course in JAVA programming, designed as a follow-on to COP 2800, Introduction to Object Oriented Programming using Java. Topics include applets, interfaces, packages, properties, exception handling, native methods, multimedia mechanisms, multithreading and networking capabilities and continuation of JAVA's Object Oriented features with emphasis on class implementation. Advanced GUI design using JAVA's using JAVA's swing FX package with emphasis on event handling, by use and development of JAVA beans, data base and network applications.

SUGGESTED TEXT(S):	Dietel and Dietel, JAVA How To Program or similar text Liang, Y. Daniel. Intro to Java Programming, Comprehensive Version (10th Edition Latest Edition) ISBN- 13 9780133761313 Online Version ISBN-13 9780134167008 Schildt, Herbert. Java: The Complete Reference, Ninth Edition Latest Edition ISBN 13 9780071808552
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IMPLEMENTATION DATE: January, 2002 (20022)

REVIEW OR MODIFICATION DATE:

Fall Term, 2002 (20031)

Fall Term, 2008 (20091) – Outline Review 2007

Spring Term, 2015 (20152)

Fall Term, 2015 (20161) – Outline Review 14-15

Spring Term, 2017 (20172) – Propsoal 2016-03

COURSE TOPICS

CONTACT HOURS
PER TOPIC

I.	Advanced GUI Components	4
II.	Multi-Threading	6
III.	Files and Streams	5
IV.	Lambda Expressions	2
V.	Multi-Media	8 6
	A. Images (2)	
	B. Animation (2)	
	C. Audio (2)	
	D. Video (2)	
VI.	DataBase Handling	6
VII.	Networking/RMI	6
VIII.	Data Structures	6
IX.	JAVA Beans	5
X.	JAVA Utilities Package	5 3
XI.	Internationalization	2
XII.	Collections	5
XIII.	Native Methods	4

	Total	60

REPLACEMENT PAGE

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COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 1511020100

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PROGRAM TITLE: Computer Programming Specialist (Local Certificate)

COURSE TITLE: Introduction to Object Oriented Programming with Java

CIP NUMBER: 0511080103

Program Frameworks can be found at the following website: <http://www.fldoe.org/workforce/dwdframe/>

SECTION 1			
Course Prefix and Number:	COP 2805C	Semester Credit Hours (Credit):	3
		Contact Hours (Workforce):	
Course Title:	Advanced JAVA Programming		

SECTION 2a (To be completed for General Education courses only.)	
TYPE OF COURSE (Place an "X" in the box next to those that are applicable.)	
<input type="checkbox"/>	General Education Core (If selected, core discipline area will be identified in Section 4.)
<input type="checkbox"/>	General Education (If selected, you must also complete Section 4, Section 5, and Section 8)

SECTION 2b					
TYPE OF COURSE (Place an "X" in the box next to those that are applicable.)					
<input type="checkbox"/>	A.A. Elective	<input type="checkbox"/>	A.S. Required Course	<input checked="" type="checkbox"/>	A.S. Professional Elective
<input type="checkbox"/>	A.A.S. Required Course	<input type="checkbox"/>	A.A.S. Professional Elective	<input checked="" type="checkbox"/>	Technical Certificate
<input type="checkbox"/>	PSAV/Clock Hour/Workforce	<input type="checkbox"/>	Development Education	<input type="checkbox"/>	Apprenticeship
<input type="checkbox"/>	Upper Division/Bachelors	<input type="checkbox"/>	Other:	If selected, use this space to title "other" option.	

SECTION 3									
INTELLECTUAL COMPETENCIES (Place an "X" in the box next to those that are applicable.)									
<input checked="" type="checkbox"/>	Reading	<input type="checkbox"/>	Speaking	<input checked="" type="checkbox"/>	Critical Analysis	<input type="checkbox"/>	Qualitative Skills	<input type="checkbox"/>	Scientific Method of Inquiry
<input type="checkbox"/>	Writing	<input checked="" type="checkbox"/>	Listening	<input type="checkbox"/>	Information Literacy	<input type="checkbox"/>	Ethical Judgement	<input type="checkbox"/>	Working Collaboratively

SECTION 4 (To be completed for General Education courses only.)					
GENERAL EDUCATION DISCIPLINE AREA (Place an "X" in the box next to those that are applicable.)					
<input type="checkbox"/>	Communications	<input type="checkbox"/>	Humanities	<input type="checkbox"/>	Mathematics
<input type="checkbox"/>	Social and Behavioral Sciences		<input type="checkbox"/>	Natural Sciences	

SECTION 5 (To be completed for General Education courses only.)					
GENERAL EDUCATION LEARNING OUTCOME AREA (Place an "X" in the box next to those that are applicable.)					
<input type="checkbox"/>	Communication	<input type="checkbox"/>	Critical Thinking	<input type="checkbox"/>	Information Literacy
<input type="checkbox"/>	Scientific and Quantitative Reasoning		<input type="checkbox"/>	Global Sociocultural Responsibility	

SECTION 6		
LEARNING OUTCOMES	TYPE OF OUTCOME (General Education, Course or Program)	METHOD OF ASSESSMENT
Understand characteristics of JAVA Applications, Applets, Methods and Control Structures.	Course	Projects and/or Exams
Demonstrate Object Based Programming.	Course	Projects and/or Exams
Create Graphical User Interfaces.	Course	Projects and/or Exams
Discuss, Create and Use Collections.	Course	Projects and/or Exams
Discuss, Create and Use Files and Streams.	Course	Projects and/or Exams
Discuss, Create and Use Exception Handling.	Course	Projects and/or Exams
Discuss, Create, and Use Java Programs using Lambda Expressions	Course	Projects and/or Exams
Discuss, Create, and Use Java Programs using Internationalization Features	Course	Projects and/or Exams

SECTION 6 (Continued)		
LEARNING OUTCOMES	TYPE OF OUTCOME (General Education, Course or Program)	METHOD OF ASSESSMENT
Discuss, Create, and Use Java Programs using Networking and RMI Features	Course	Projects and/or Exams
Discuss, Create, and Use Java Programs using Multi-Threading Features	Course	Projects and/or Exams
Discuss, Create, and Use Java Programs using Native Interface Features	Course	Projects and/or Exams
SECTION 7		
Faculty name(s):	Bob Janson David Singletary	Date: 05/5/15 8/23/16

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