



Section 1. Proposed Course Outline (A general statement of course content that informs class syllabus construction. Once approved, all sections of a given course must include this content, no matter which instructor teaches the course, or the mode of delivery. Divisions must include this new course outline in the Divisional Course Outline binder as required by COPPs.)

Course Number: CS235M Full Course Title for print catalog: Intermediate Mobile Application Development

Abbreviated Course Title for Banner: Intermediate Mobile App Dev (30 character limit)

Prerequisites: CS233N or CS162J or CS162C+

Co-requisites:

Grade Option: Graded (with P/NP option) Pass/No Pass only

Number/Type Credits	Term Minimum Contact	Term Maximum Contact	11-Week Term Contact
2 Lecture	20 hours (lecture credits x 10)	24 hours (lecture credits x 12)	22 hours (lecture credits x 11)
1 Lec/Lab	20 hours (lec-lab credits x 20)	24 hours (lec-lab credits x 24)	22 hours (lec-lab credits x 22)
1 Lab	30 hours (lab credits x 30)	36 hours (lab credits x 36)	33 hours (lab credits x 33)
4 Total credits (sum)	70 Total hours (sum)	84 Total hours (sum)	77 Total hours (sum)

Course Description (300 character limit):

This course introduces students to applying object oriented programming to mobile application development and the Android System Development Kit. Cross-platform mobile app development will be done using the Mono framework and the MonoDevelop IDE.

Course Outcomes and Proficiencies

What will the student *know* or *be able to do* at the end of the course?

What *attitudes* related to the subject will the student hold?

Upon successful completion of this course, the student will:

Design the core logic for a mobile software application.

Write, debug, and test the code for the core logic for an application.

Design User Interfaces for two platforms.

Integrate the UIs with the core logic on two platforms.

Evaluate mobile app designs and architectures in terms of user experience, performance, and maintainability.

Assessments Planned

What evidence will demonstrate that students have achieved course outcomes? (assessment tools may include departmental tests, written products, portfolios, juried performances, quizzes and exams, or alternative assessments such as qualitative studies, capstone projects, external reviewers, etc.)

How each outcome will be assessed:

Written assignments, small group activities, peer reviews, and quizzes.

Hands on activities, peer reviews, and quizzes.

Written assignments, small group activities, peer reviews, and quizzes.

Hands on activities, peer reviews, and quizzes.

Small group activities, quizzes.

Course Content by Major Topics

What topics will be presented? What are the main activities of the course? What are the central themes?
(See sample at <http://www.lanecc.edu/cops/format3.htm>.)

Topics:

Introduction to the mobile SDK
Introduction to the Mono framework and MonoDevelop
Mobile application architecture
Designing and implementing mobile user interfaces
Designing and building core logic and database tiers
Cross-platform unit testing
Cross-platform integration of UI, logic, and data tiers
Deploying applications

Section 2. Proposal Information

Course Developer:

Brian Bird

Date: 12/6/12

Catalog year to take effect:

2011-2012 ____

2012-2013 ____

Type of Proposal

X New course

Currently 199 or 299

Experimental Course

199 Special Studies

299 Trends

Revised course (If increasing credits, use credit change form)

Reactivated course with no change

Reactivated course with changes

Type of Course:

Lower Division Collegiate (transfer)

Professional/Technical (required or elective)

Developmental, numbered below 100

Rationale:

How does this proposal further the goals of the program or department?

This course will provide students with a skill that is currently in very high demand and for which the number of jobs continues to grow.

This adds a valuable elective for students in any of our degree programs, Programming, Game Programming, Health Informatics, Computer Information Systems, and Network Operations. The only prerequisite will be a two term programming sequence.

What assessment evidence supports this proposal?

Job postings both locally (Craig's list) and nationally (Monster and Dice) show an increasing number of jobs for mobile application developers.

How do you know there is a demand for this course?

Many current students have expressed a high degree of interest in the course. Interest has also been expressed by individuals working in the local software industry.

Section 3. Curriculum Equity (<http://www.lanecc.edu/cops/curric.htm>)

To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane's Curriculum Equity policy in the following way(s):

Computer related fields are, in general, male dominated. The CIT department attempts to counteract the gender inequity by co-sponsoring a monthly professional meeting, Women in Information Technology, with the Women's Center. Every attempt is made to teach individual courses in a way that encourages all students.

Section 4. For revised courses only: PREVIOUS Catalog/Course Information: Course Number: .

Course Title in Banner: _____ (30 characters maximum)

Full Course Title in print catalog:

Prerequisites:

Co-requisites:

Grade Option: Graded (with P/NP option)

Pass/No Pass only

Number/Type Credits	Term Minimum Contact	Term Maximum Contact	11-Week Term Contact
__ Lecture	__ hours (lecture credits x 10)	__ hours (lecture credits x 12)	__ hours (lecture credits x 11)
__ Lec/Lab	__ hours (lec-lab credits x 20)	__ hours (lec-lab credits x 24)	__ hours (lec-lab credits x 22)
__ Lab	__ hours (lab credits x 30)	__ hours (lab credits x 36)	__ hours (lab credits x 33)
__ Total credits (sum)	__ Total hours (sum)	__ Total hours (sum)	__ Total hours (sum)

Course Description:

What will change? Course Number Title Course Description Credit hours Contact hours

Section 5. Support Courses (New Professional/Technical course proposals must complete.)

Professional/Technical courses are tracked within programs for purposes of Carl Perkins funding and budgetary planning. Indicate all degree or certificate programs for which this course will be required.

Program	Division
Computer Information Systems degree- Mobile Application Cluster	BCIT

Section 6. Overlap Courses (New course proposals must complete.)

While overlap of course materials is not necessarily a flaw, duplication of course materials may lead to inefficient use of college resources. If there is overlap, the faculty of overlapping courses must agree on the extent of overlap and attach a rationale explaining its necessity.

Indicate all departments/courses that this course may overlap. Division Dean of existing course enters one of two options at right.
Note: N/A is not an option.

Options:

1. No overlap.
2. Approved: overlap is acceptable. Rationale attached.
3. Disapproved: reasons attached.

Division	Course Number / Title	% Overlap	Option	Division Dean of existing course (Signature required for all options)	Date
	None				

Section 7. Qualification to fulfill degree requirements (complete all relevant forms, available at <http://www.lanec.edu/currsched/index.html> and send to Mary Brau for the Degree Requirements Review Committee):

Form(s) applying for the following degree requirement status have been attached. (Only check this box when forms have been completed and attached.)

AAOT, ASOT-Bus, OTM:

Arts & Letters
Social Sciences
Science /Computer Science
Mathematics
Cultural Literacy Option

All degrees:

Health/Wellness/Fitness

AAS, 1-year and 2-year certificates:

Human Relations

Optional designation:

Sustainability status

Section 8. Library Impact Statement

Under accreditation standards, Library consultation is essential for new programs, new courses and for substantively revised courses when the revisions entail any change in library use.

What assignments will require the use of library and information resources?

Each academic area has a Liaison Librarian (<http://www.lanecc.edu/library/services/liaison.htm>). Contact the designated librarian to discuss the library needs of your course. Please allow the librarian at least one week to assess library resources.

To be completed by Liaison Librarian:

Library resources are adequate to support this proposal.

Additional resources are needed but can be obtained from current funds.

Significant additional Library funds/resources are required to support this proposal.

Liaison Librarian

Date

Section 9. Divisional Approval (To be completed by Division Chair and Administrative Assistant) **Human, Physical, and Financial Resources:**

Additional instructional costs (staff, materials, services or facilities) will be incurred to offer this course. Source of funding:

No additional instructional resources (staff, materials, services or facilities) are needed to offer this course. Explain:

Required Certifications:

We have developed minimum course certification standards according to the COPPs procedure "Instructor Qualifications: Credit," to be filed with ASA upon course approval.

We have completed faculty certification form(s) for faculty qualified to teach this course, to be filed with ASA and Human Resources upon course approval.

Administrative Assistant/Coordinator

Date

Fees:

We have completed fee rationale and fee request forms to be submitted to ASA upon course approval, in compliance with the COPPs procedure, "Fees: Special"

No special fees will be required for this course.

Divisional Recommendation:

The Division Chair and Administrative Assistant have reviewed this course proposal and kept a copy for divisional files.

Faculty review of this course was completed within the division on ____ (date).

Pass Do Not Pass_

Academic Dean

Date

Section 10. College Approval

Curriculum Committee Chair Date	Date	Executive Dean for Academic Affairs
Curriculum Approval Committee hearing: Date	Date	Vice President for Academic & Student Affairs