Mobile Developer using AI + Internship

PROGRAM OBJECTIVES

The Mobile Developer diploma program at Eastern is 62 weeks. It includes a 12-week internship**.** The Eastern industry -leading Mobile Developer diploma program is designed for the individual seeking knowledge and certification in mobile app development. In addition to training on popular programming languages including JavaScript, Java and Swift, students learn how to create feature-rich mobile apps for both the Android and iOS platforms. Moreover, Students learn how to work with graphics, and leverage user interface design principles to enhance the user experience. Additionally, students learn how to communicate effectively, as well as manage time and development- related projects using a variety of mainstream tools and practices.

Courses in this program relate to 3 industry certification examinations. Students are provided with 3 certification exam vouchers to write the certifications they wish to pursue.

CERTIFICATIONS

Students who successfully complete this program will be eligible to write certification exams leading to the following designations: Adobe Photoshop Certified Professional, Adobe Illustrator Certified Professional, and Oracle Java Associate. These certifications are comprised of three (3) individual certification examinations. Students are provided with three (3) certification exam vouchers to write the certifications they wish to pursue.

CAREER OPPORTUNITIES

Graduates of our program will have the opportunity to start careers include Website Designer, HTML5/CSS Developer, JavaScript Developer, WordPress Developer, Swift Developer, Java Developer, iOS Developer and Android Developer.

PREREQUISITES

1. Student has Grade 12 or equivalent or meets criteria for Mature Student Status.
2. Mature students must be 19 years of age, pass a qualifying test, and provide a Letter of Intent OR resume that supports their skills and aptitudes to be successful in the program.
3. The approved qualifying test for this program is the Wonderlic test. A passing score for this program is 20.

GRADUATION REQUIREMENTS

Eastern diplomas will be granted only to students who successfully complete all courses in the program with a passing grade of 60% (or a grade of 'complete' where applicable). As well, students must meet the minimum Standards of Satisfactory Scholastic Progress as set out in our Student Handbook. For programs that include an internship, all internship hours must be completed and a final grade of 'Pass' must be achieved for the internship.

TECHNICAL REQUIREMENTS

For updated technical requirements of your program, please click here:

Application Developer Programs

NOTE: In order to continuously improve our programs, Eastern College reserves the right to modify programs at any time. Program delivery order may vary depending on program start date. This diploma program may not be available at all campuses.

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EXAM PROCTORING

While studying online, there will be several courses that will require a final exam or assessment that is proctored to ensure academic integrity is maintained. Students will have two options:

Option 1 – students complete the exam from home with remote proctoring. Students will be recorded and observed during the exam using Proctorio remote exam proctoring. Students must write the exam on the computer that meets the minimum system requirements as outlined above.

Option 2 – student may come in-to any Eastern College campus and write the exam in person. If you would like to write the exam in person, you will need to schedule this time in advance with your instructor.

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HOW AI IS USED IN TECHNOLOGY PROGRAMS:

What is AI?

Artificial Intelligence (AI) is an evolving technology that attempts to simulate human intelligence using computer programs. At the heart of AI is **Machine Learning (ML),** which correlates large amounts of data to learn the relationships between different data elements. AI and ML products can be used by both IT professionals and software developers to save time on certain tasks.

How do software developers leverage AI on the job?

Nearly all modern development tools now have AI-based auto-suggestion, code generation, and documentation abilities. Software developers can choose to autofill in certain lines of code, as well as generate the initial structure (called stub code) for a new program to give them a solid starting point for development. Additionally, software developers can leverage AI tools to add the necessary documentation to existing code to save time.

How do we approach AI in our programs?

While AI can be used to save time, all AI-generated content must be reviewed in depth by someone with content expertise to ensure that it provides the necessary functionality, and in a way that adheres to corporate standards, security, and software/ copyright licenses. Thus, you must first have a solid understanding of IT administration or software development to leverage AI effectively in those fields.

At Eastern, students do not learn how to create new AI technologies. Instead, we leverage AI to generate content throughout several courses in the program, but only where appropriate, and in ways that mimic the use of AI in the workplace. Additionally, all AI generated content is thoroughly reviewed before use to ensure functionality, security, copyright adherence, license compatibility, and quality.

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PROGRAM OVERVIEW		
Course	**Hours**	**Weeks**
Student Success Strategies	20	1
Career Management	20	1
Graphical Design	80	4
HTML and CSS	80	4
JavaScript	120	6
Linux Web Hosting and Word Press	40	2
UI/UX Design	80	4
Version Control and Collaboration	80	4
Java Development	80	4
Swift Development	80	4
iOS Development	128	8
Android Development	128	8
Mobile Capstone	64	0
Mobile Developer Internship	240	12
TOTAL	**1240**	**62**

*Number of study break weeks will depend on student start date.

**Capstone hours are distributed across regular class hours. Not included in the schedule. Hours are deducted from iOS Development and Android Development.

***Work terms/internships are scheduled for a minimum of 20 hours per week, but the total number of hours worked and the timing of hours scheduled are at the discretion of the employer/host to a maximum of 40 hours per week.

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COURSE DESCRIPTIONS

Student Success Strategies

This course stresses the importance of developing non-technical skills to enhance personal, academic and career success. This includes understanding learning styles and honing practical study skills, such as memory, reading, note- and test-taking techniques. Personal exercises will focus on teamwork, setting goals and maintaining a positive attitude. Techniques for managing change, stress, and conflict will also be explored.

Career Management

In this module, you will create and refine your résumé and LinkedIn Profile. You will write cover letters and learn the value of customizing cover letters to specific job postings. You will have the opportunity to apply this knowledge as you conduct a job search and write a cover letter tailored to an ideal job post. Through research, you will create a list of top employers and target current industry opportunities. You will learn about current methods for applying to job postings using technology. You will also gain an understanding of the job interview process, typical interview questions and possible responses, and expectations of both the interviewer and interviewee. In addition, you will engage in practical application of the interview process through role-play. Topics such as negotiating salary, self-management, and on-the-job success for placements and post-graduate employment will be also covered.

Graphical Design

Visual images, user interfaces, and other graphical art are an important part of nearly all apps and webpages today. This course introduces the concepts and techniques used to create and modify graphical art for use within software and on the web. Students will work with both bitmap based and vector-based graphical art formats, as well as generate art using AI tools.

HTML and CSS

This course introduces the core concepts and procedures used to create websites. More specifically, students learn how to create the components of a website using HTML5, as well as provide a standardized layout of website elements using CSS3.

JavaScript

JavaScript allows for a rich set of interactivity within the content on a website. Consequently, it is one of the most common programming languages used today. In this course, you will learn the core elements of the JavaScript programming language, use JavaScript to provide enhanced functionality within a website, as well as leverage AI tools to generate JavaScript stub code.

Linux Web Hosting and WordPress

Most web servers in the cloud are hosted on the Linux operating system. In this course, students will learn the basic usage of the Linux operating system, as well as the configuration of the Apache web server on Linux. Additionally, students will use the Apache web server to host their own websites as well as the WordPress content management system.

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UI/UX Design

In this course, students learn how to design user interfaces for web and mobile apps to maximize both usability and user experience. Additionally, students learn how to leverage AI tools to simplify the creation of design prototypes.

Version Control and Collaboration

Most software projects today use an agile development process to provide timely revisions to software. Additionally, most software projects use the Git system for version control and collaboration. In this course, students explore the various agile development and project management techniques that are common in the industry, as well as learn how to leverage Git, GitHub, and GitHub Copilot AI for code versioning and collaboration.

Java Development

In this course, students apply the object-oriented concepts from the Swift development course to the Java programming language. More specifically, students will learn Java data and control structures, as well as how to create both graphical and web-based Java applications

Swift Development

In this course, students are introduced to object-oriented programming using the Swift programming language. More specifically, students will learn Swift expressions, collections, and types, as well as enumerations, protocols and generics.

iOS Development

In this course, students explore the different components of the Apple XCode SDK to build feature-rich iOS apps using the Swift programming language, leveraging AI generated code where appropriate. More specifically, students will learn how to leverage SwiftUI to create mobile apps that provide a fluid experience on iPhone and iPad devices.

Android Development

In this course, students explore the different features of the Android SDK to build feature-rich Android apps using the Kotlin programming language. More specifically, students will learn the detailed usage and capabilities of the Kotlin programming language, as well as the elements of the Android SDK that can provide a wide variety of different functionality within an Android app, leveraging AI generated code where appropriate.

Mobile Capstone

In this capstone project, you create either a custom Android or iOS app. Instructors will mentor you and review your code during the supervised lab portion of regular class time.

Mobile Developer Internship

At the successful completion of the classroom hours of this program, you will be placed in a 240-hour internship at an outside organization. You will have the opportunity to apply your new and developed skills in a real-world environment. Hosts include small, medium, and large organizations that provide applications and web development services.

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