

LAMP Open Source Development Certificate

Certificate

Information Technology Program Cluster

School of Agriscience and Technologies

Program offered at Madison Campuses

For information call: (608) 246-6800 or
(800) 322-6282 Ext. 6800

About the Certificate

The LAMP Open Source Development certificate provides comprehensive instruction for programming students and professionals who want to expand their skills in open source development. Students learn to develop web applications using open source development tools including the PHP and Ruby programming languages, Rails web development framework, MySQL database management system, Apache Web server, and Linux operating system. This certificate provides hands-on training in designing, planning and implementing web applications.

Unique Requirements for Admission

Students must have a minimum of three years of related work experience or be second-year students in an Information Technology programming degree or have permission of the instructor to enroll for this certificate. The student is expected to have exposure to a relational database management system (RDBMS) (e.g., Microsoft Access, Microsoft SQL Server, Oracle, DB2 or an equivalent). The course 10-152-124 Introduction to Database may be taken if a student does not have work experience with an RDBMS. The student is also expected to have exposure to a programming language (e.g., COBOL, Visual Basic, C++, Java, etc.) either through professional experience or IT department coursework.

Certificate Application Process

To apply, see: Apply Online (on the Madison College website). [Create an ApplyWeb account](#) and follow the [instructions](#) to complete the [Online Certificate Application](#) before the [application deadline](#). Submit the \$15 non-refundable fee (payable by credit card, debit card or electronic check) with your application. Applicants may submit more than one certificate application per term using the Online Certificate Application; the same fees apply for each additional application.

Unique Requirements for Completion

The certificate will be awarded upon completion of the requirements with a minimum of a 2.0 grade average and no course grade lower than a C. The certificate will be awarded when completion of all requirements is verified after the semester the last course has been completed.

Curriculum

First Semester		Credits	Hrs/week Lec-Lab
10-152-157	Ruby on Rails Development**	3	2-2
10-152-166	PHP Web Development with MySQL	3	2-2
10-152-167	Advanced PHP and MySQL Web Development*	3	2-2
10-154-190	Linux Server	3	2-2
Semester Total		12	

*Offered fall semester only

**Offered spring semester only

Note: All Information Technology courses require a grade of C or better in order to receive the certificate.

10-152-157 Ruby on Rails Development

3 credits

Introduces the student to dynamic web page development using the Ruby on Rails web development framework. The course will also use the popular MySQL open source database management system. Topics will include an introduction to the Ruby programming language, installing Ruby and Ruby on Rails, an overview of the Rails Framework, ActiveRecord basics, ActionController coding, Action Views, AJAX and the Web 2.0, ActionMailer basics, security, deployment, and scaling. Students will produce a very modern web application that can be adapted to many professional web development needs. Prerequisite: Acceptance into certificate and grade of C or better in 10-152-167 or 10-152-102 or 10-152-112.

10-152-166 PHP Web Development with MySQL

3 credits

This course introduces the student to dynamic web page development using the PHP programming language. Students will learn how PHP works, how to effectively use many of its powerful features, and how to design and build their own PHP web applications. The popular MySQL open source database management software (DBMS) will also be introduced as a powerful backend for PHP websites. Prerequisite: acceptance into certificate.

10-152-167 Advanced PHP and MySQL Web Development

3 credits

This course prepares the student to implement professional PHP and MySQL web applications. Students will learn advanced techniques for session management, validation, and authentication. Advanced web application features such as shopping carts, content management, web forums and connecting to web services are discussed. Installation and customization of open source PHP web applications is also covered. Prerequisite: grade of C or better in 10-152-166.

10-154-190 Linux Sever

3 credits

Introduces Linux with a focus on system administration skills. Topics include: installation, file and directory management, command execution, input/output redirection and pipes, shell scripts, network services, security, troubleshooting

Career Potential:

- LAMP Web Developer
- Web Application Developer

More detailed and updated information on this program may be available at: madisoncollege.org. The college reserves the right to make changes in the regulations and courses announced in this publication without notice.

Madison Area Technical College provides equal opportunity in education and employment.

Rev. 03/12

