

## BlackBerry® Academic Program: Support

Help your students gain the technological advantage with support courses offered by the BlackBerry® Academic Program

Each BlackBerry Academic Program Support course can be offered within an 8 to 16 week academic semester (depending on an institution's course schedules). The recommended course length per semester ranges between 45 to 65 hours depending on how many hours of lab time is allocated for students. Recommended number of hours of instructor-led training is 25 to 40 depending on length of semester.

### Support in a BlackBerry Enterprise Environment

#### Recommended Prerequisites

No previous experience with BlackBerry solutions is required. Prior knowledge in the Windows® XP Operating System, Local Area Networks (LANs) and Wireless Networks is highly recommended. Additional knowledge in Microsoft® Active Directory® and Microsoft® Exchange, IBM® Lotus Notes® and Novell® GroupWise® is recommended.

This introductory course targets students who intend to specialize in supporting BlackBerry smartphones and BlackBerry® Desktop Software. It can help students develop the skills required to work in contact centers or IT support environments. The course is designed to prepare students to assist with common issues that might arise in a BlackBerry® Enterprise Solution environment.

#### Course Description

The course provides information that may help to prepare students to write the BlackBerry Certified Support Specialist (BCP-211) certification exam. Topics in this course are designed to correspond to the exam objectives, but the course also includes additional information and resources to help students in a larger IT environment. For more information about the BlackBerry Certification Program, exam requirements, and additional learning materials, visit [www.blackberry.com/certification](http://www.blackberry.com/certification)

#### Topics Covered

- Introduction to BlackBerry solutions
- Working with the BlackBerry Enterprise Solution
- Securing the BlackBerry Enterprise Solution
- BlackBerry® Desktop Manager software
- Supporting BlackBerry smartphones

### BlackBerry Server Support in a Microsoft Exchange Environment

#### Recommended Prerequisites

Students should have completed the BlackBerry Academic Program course "BlackBerry System Administration in a Microsoft Exchange Environment", have hands-on experience with BlackBerry smartphones and a familiarity with Microsoft Exchange Server.

#### Course Description

In the BlackBerry Academic course BlackBerry Server Support in a Microsoft Exchange Environment, students will develop the knowledge required to configure the BlackBerry Enterprise Server in a Microsoft Exchange environment, perform common tasks, and troubleshoot issues. Upon completion of the course, students should be able to navigate and set-up basic configurations independently using the BlackBerry Desktop Manager software. Students will know how to access and use product guides and troubleshooting documentation for BlackBerry smartphones and the BlackBerry Enterprise Server.

#### Topics Covered

- The BlackBerry Enterprise Solution
- Installing BlackBerry Enterprise Server software
- Administering the BlackBerry Enterprise Server
- Troubleshooting BlackBerry Enterprise Server components
- Troubleshooting data flow

The course contains information that may help to prepare students for the Supporting a BlackBerry Enterprise Server in a Microsoft Exchange Environment (BCP-213) BlackBerry Certification exam. A number of the topics in this course meet the objectives found in the exam, but also include additional information and resources to help students in IT departments in large organizations. For more information about the BlackBerry Certification Program, exam requirements, and additional learning materials, visit [www.blackberry.com/certification](http://www.blackberry.com/certification)



### Course Outlines

# BlackBerry® Academic Program

The BlackBerry Academic Program from Research In Motion Limited provides educational resources that will help enable students to develop applications, manage BlackBerry hardware and software, and learn more about BlackBerry technology.

#### For More Information:

[www.blackberry.com/academic](http://www.blackberry.com/academic)

or email [BlackBerryAcademicProgram@rim.com](mailto:BlackBerryAcademicProgram@rim.com)

 **BlackBerry**  
Academic Program

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 **BlackBerry**  
Academic Program

## BlackBerry® Academic Program: Administration

Help prepare your students for the wireless world with administration courses offered by the BlackBerry Academic Program. Courses will help to prepare students to administer, configure, troubleshoot, and perform common tasks on the BlackBerry® Enterprise Server.

Each BlackBerry Academic Program Administration course can be offered within an 8 to 16 week academic semester (depending on an institution's course schedules). The recommended course length per semester ranges between 45 to 65 hours depending on how many hours of lab time is allocated for students. Recommended number of hours of instructor-led training is 25 to 40 depending on length of semester.

### BlackBerry Server Maintenance in a Microsoft Exchange Environment

#### Recommended Prerequisites

Students should have completed the BlackBerry Academic Program courses; Support in a BlackBerry Enterprise Environment and BlackBerry Server Support in a Microsoft® Exchange Environment. They should also have hands-on experience with BlackBerry smartphones and have basic networking skills, and knowledge of how to perform tasks such as adding and removing BlackBerry smartphone users on the Microsoft® Exchange Server® and Microsoft Active Directory®.

#### Course Description

This course is designed to prepare students to support and administer BlackBerry smartphones and BlackBerry® Desktop Software in an enterprise environment. Students will obtain a high level of understanding of BlackBerry smartphones and the BlackBerry Enterprise Server. After completing this course students will be prepared to back up and perform general maintenance on storage groups, apply permissions, and manage data flow in a Microsoft Exchange environment. Students will obtain a basic understanding of Windows® permissions, Microsoft® Outlook® MAPI, firewalls, proxy servers, TCP/IP, DMZ, and the BlackBerry® Enterprise Server Resource Kit. Students will also troubleshoot issues using BlackBerry Enterprise Server log files.

#### Topics Covered

- Installing BlackBerry Enterprise Server software
- Configuring the BlackBerry Enterprise Server
- Configuring BlackBerry smartphone user accounts
- Securing the BlackBerry Enterprise Solution
- Maintaining and monitoring the BlackBerry Enterprise Server
- Troubleshooting the BlackBerry Enterprise Server

The course contains information that may help to prepare students for the Maintaining a BlackBerry Enterprise Server in a Microsoft Exchange Environment (BCP-410) BlackBerry Certification exam. A number of the topics in this course meet the objectives of the exam, but the course also includes additional information and resources to help students in IT departments of large organizations. For more information about the BlackBerry Certification Program, exam requirements, and additional learning materials, visit [www.blackberry.com/certification](http://www.blackberry.com/certification)

## BlackBerry® Academic Program: Mobile Application Development

Mobile Application Development courses from the BlackBerry Academic Program help teach students about available development tools and techniques, which can enable them to develop applications for the over 41 million BlackBerry smartphone users worldwide.

### Introduction to Mobile Application Development for the BlackBerry Smartphone

#### Recommended Prerequisites

Students should have prior knowledge of object oriented programming languages (Java® is recommended) and some familiarity with the computer science discipline.

#### Course Description

This course is designed as an introductory course for developing applications for mobile devices. Students will be introduced to the key concepts in designing and deploying a mobile application such as device constraints (limited power, memory) and accessibility issues (user interface design).

#### Topics Covered

- Introduction to application development for mobile devices
- Selected mobile device features and functionality (GPS and Wi-Fi®)
- Methods for application development for mobile devices
- Introduction to push technology
- Data structures and memory management on mobile devices
- User interface (UI) design for mobile devices
- Scalable Vector Graphics (SVG) for mobile devices
- Security considerations for developing applications for mobile devices

### Introduction to Java Application Development for the BlackBerry Smartphone

#### Recommended Prerequisites

Students should have prior knowledge of object oriented programming languages (Java is recommended) and some familiarity with the computer science discipline. Completion of some of the modules and curriculum from the Introduction to Mobile Application Development for the BlackBerry Smartphone course is recommended.

#### Course Description

This course is designed to provide students with an introduction to developing Java applications for mobile devices such as the BlackBerry smartphone. During this course, students will be exposed to concepts such as Java APIs, push technology for Java applications and an introduction to threading and background processing. This course is ideal for students who have prior knowledge or experience with the Java programming language.

#### Topics Covered

- Introduction to Java application development for mobile devices
- Understanding Java APIs for mobile devices
- Developing a User Interface (UI) for mobile devices
- Introduction to push technology for Java applications
- Introduction to threading and background processing
- Network communication for mobile devices
- Testing and debugging applications

Each BlackBerry Academic program Mobile Application Development course can be offered as a complete course within a 12-16 week semester. If offered as a complete course, each course can be delivered with 16 to 24 hours of instructor-led lectures and 16 to 24 hours of laboratory time. Additionally, instructors have the option of selecting individual modules to integrate into the curriculum of an existing course. As such, modules can be delivered within a 1-3 hour lecture timeframe, with a suggested 1-3 hours of laboratory time scheduled for students to complete labs and/or assignments to reinforce theoretical concepts. As a result, the course delivery can be flexible for the needs of each institution and instructor.



### Advanced Java Application Development for the BlackBerry Smartphone

#### Recommended Prerequisites

Students should have prior knowledge of object oriented programming languages (Java is recommended) and some familiarity with the computer science discipline. Completion of some of the modules and curriculum from the Introduction to Mobile Application Development for the BlackBerry Smartphone and/or the Introduction to Java Application Development for the BlackBerry Smartphone courses is recommended.

#### Course Description

This course is designed as an advanced course in Java application development for mobile devices such as the BlackBerry smartphone. In this course, students will be exposed to concepts and topics such as advance user interface design considerations, developing multimedia applications and best practices for designing and deploying secure applications.

#### Topics Covered

- Introduction to advanced mobile application development for the BlackBerry smartphone
- Application control for mobile devices
- Optimization for mobile application development
- Introduction to multimedia application development for the BlackBerry smartphone
- Understanding client/server push
- Introduction to developing Bluetooth® applications for mobile devices
- Developing secure applications

### Introduction to Web Application Development for the BlackBerry Smartphone

#### Recommended Prerequisites

Students should have prior knowledge of basic programming languages (Java is recommended) and some familiarity with the computer science discipline. Completion of some of the modules and curriculum from the Introduction to Mobile Application Development for the BlackBerry Smartphone course is recommended.

#### Course Description

This course is designed to provide students with an introduction to developing web applications for web browsers on mobile devices such as the BlackBerry smartphone. During this course, students will be exposed to concepts such as web development tools for mobile application development, widgets, and optimizing web content for mobile device browsers.

#### Topics Covered

- Introduction to web development for mobile devices
- Web development tools for mobile devices
- The BlackBerry® Infrastructure
- Optimizing web content for mobile device browsers
- Introduction to browser push
- Widgets