



## Academic Spotlight

### Dr. Hamzeh Roumani, York University

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– Dr. Hamzeh Roumani, Senior Lecturer, York University



## About Dr. Hamzeh Roumani

Dr. Hamzeh Roumani is an award winning professor and a recipient of the 3M Fellowship, the highest and most prestigious recognition of teaching excellence in Canada. Roumani’s teaching philosophy is founded on the clear separation of abstraction levels. Roumani’s pedagogy is based on learning by doing, and his works embrace this throughout. His textbooks and courses are based on explorative labs that blend theoretical concepts with hands-on experience.

## York University: Balancing theory and application

The BlackBerry® Academic Program (BAP) enables professors around the world to effectively deliver mobile curriculum. Dr. Hamzeh Roumani of York University is one of those professors, using BlackBerry Academic Program resources to teach undergrad students the underlying concepts of mobile development early in their studies. His course enables students to build applications and become comfortable with a variety of tools, development environments and programming languages.

## Staying on Point

“Due to the fast pace of change and scarcity of widely adopted web standards in the field of web and mobile computing, it is incredibly difficult to create a course that remains relevant”, Dr. Roumani explains. He wanted to ensure that his course was a successful blend of theory and application. Further, he mentions that, “too much focus on technology and knowledge becomes obsolete by the time students graduate. Cover only the theory and skills become irrelevant to employers who expect students to hit the ground running.” With this in mind, Dr. Roumani carefully charted a course between theory and application using open architectures and universal web standards.

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## Quick Facts

25 students enrolled in course

30 BlackBerry® Bold smartphones provided by the BlackBerry Academic Program

The BlackBerry smartphone WiFi® capability was used to explore networking concepts such as MAC address and user-agent, the small-screen challenge and the role CSS plays in addressing different sizes and resolutions

The BlackBerry smartphone PIM acted as the mobile database to be synchronized with a server

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## More than just Mobile Devices

Dr. Roumani's course consists of four parts: infrastructure (networking, databases, and markup), the server-side (http, CGI scripts, and JDBC), the client-side (HTML, CSS, and JavaScript®), and mobile computing (mobile apps, device features, and Ajax). "BlackBerry technology provides exactly what is needed for such a course because Research In Motion® (RIM®) adopts an open architecture and allows developers to use a variety of languages and platforms. There are no proprietary restrictions or environments that one must use. A BlackBerry smartphone can be programmed using HTML, CSS, and JavaScript—three international web standards that are platform and vendor independent," says Dr. Roumani. "RIM goes well beyond making mobile devices, they also build a rich infrastructure that involves cellular carriers, enterprises, BlackBerry® Enterprise Server and Network Operation Center (NOC) servers, email routing, push technologies, and cryptographic signatures...enabling students to explore the real-life applications of net-working, cryptography, and other theoretical topics", he concludes.

## Relevant, Real Life Concepts

The success of Dr. Roumani's course has led the Computer Security and Digital Media Programs in the Department to revise their degree requirements by adding this to their core courses. The curriculum committees of other departments are expected to do the same. "This is a testimony to the success of this course because adding a course to the core is a major curricular change and is uncommon in computing programs. The students loved the course and found it extremely relevant", says Dr. Roumani. Students, "liked the idea that the course exposed them to a variety of avenues thus helping them make informed decisions about courses to pick in third year," he adds.

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