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# CSTP 1206: Introduction to Internet Programming & Web Applications

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## EFFECTIVE DATE

September 2019

## DEPARTMENT

Computer Systems Tech Diploma

## DESCRIPTION

In this course students learn how to design and develop a software application that works through browsers or the internet. Students will learn about various web application development technologies, and how to create a web application using a modern MVC (Model-View-Controller) framework which communicates with an Apache server. In a small team of 2-4, students will build a robust Representational State Transfer (REST)ful webapp back-end to complement their chosen projects. The team will collaborate using a shared Git repository and Gitflow workflow.

## CREDITS

3.0

## YEAR OF STUDY

1st Year Post-secondary

## PREREQUISITES

CSTP 1105 Introduction to Programming CSTP 1106 Website Development

## COREQUISITES

None

## COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Setup a suitable webapp development environment
- Build a basic to advanced RESTful webapp back-end
- Build distributed capabilities into an MVC service-web application
- Use common representation/transport/application protocols for distributed systems
- Demonstrate proper team collaboration for application development
- Use collaborative workflow to develop an application
- Use a shared code repository to develop an application

- Construct a valid and well-formed XML (eXtensible Markup Language) document, and constrain it with a DTD (Document Type Definition)

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 25

Lab: 35

## INSTRUCTIONAL STRATEGIES

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

## GRADING SYSTEM

Letter Grade (A-F)

## PASSING GRADE

C

## EVALUATION PLAN

Type	Percentage	Assessment activity
Project	60	Chosen project by students teams is developed in stages, and each stage has a % mark, assigned by instructor
Participation	10	
Final Exam	30	

## COURSE TOPICS

- MVC distributed application framework
- RESTful webapp back-end
- XML (eXtensible Markup Language) document using DOM(Document Object Model) constraint
- Git and Gitflow (for code versioning)
- Representation/transport/application protocols for distributed system

## LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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### Broadway campus

1155 East Broadway  
Vancouver, B.C. Canada  
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### Downtown campus

250 West Pender Street  
Vancouver, B.C. Canada  
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### Annacis Island campus

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