

ICT239 Web Application Development

Level: 2

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY SEMESTER

Synopsis:

This course introduces students to the basic building blocks of developing a website that can process and present information from various forms of data sources: forms, database and web services. Students will learn how to manage a sequence of requests so that information can be presented coherently. Students will also learn how to organize and represent the information in HTML Document Object Model (DOM) through Javascript programming using CSS templates. Certain information is best presented visually, so students will learn the basic ways to visualize information through social networks, tag clouds and geo-coding.

Topics:

- How to respond to an information request through HTTP
- State management in a sequence of information request through HTTP
- How to structure and present information in a webpage
- HyperText Markup Language (HTML)
- Cascading Style Sheet (CSS)
- Document Object Model (DOM) and Javascript Programming Language
- How to process and present web data
- Form data
- Database data
- Web Service (XML, JSON) data
- Visualizing of data
- Case Studies, covering topics such as Visualisation of Email, Geocoding, and Social Network

Textbooks:

Sebastopol: Data visualization with Python and JavaScript : scrape, clean, explore & transform your data CA : O'Reilly & Associates, Inc., 2016.

ISBN-13: 9781491920510-AA

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ISBN-13: 9781491920510

Learning Outcome:

- Analyse the HTTP protocol in a sequence of requests for coherent communication
- Apply programming methods to present information in HTML
- Demonstrate the visualisation of data on a web presentation
- Employ web programming framework for developing website
- Construct a prototype website to present information from multiple sources upon users' requests
- Experiment with new methods of visualisation the data to suit particular information needs

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
PRE-CLASS QUIZ	2
QUIZ	6
PRE-CLASS QUIZ	2
TUTOR-MARKED ASSIGNMENT	18
PRE-CLASS QUIZ	2
Sub-Total	30

Examinable Component	Weightage (%)
ECA	70
Sub-Total	70

Weightage Total	100
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