TEQSA ID PRV:14323
CRICOS Provider Code: 03866C

BIT103 WEB APPLICATION DEVELOPMENT

Unit Outline

Important Update:	Our aim is to provide you with an optimal learning experience, regardless of how this unit is delivered. Teaching will be delivered in line with the most current COVID Safe health guidelines. This may include a mix of online and face-to-face. Please check the learning management system for announcements and updates. Thank you for your flexibility and commitment to studying with Sydney Institute of Higher Education.
Enrolment Modes:	Year 1, Semester 2.
Credit Point(s):	12.5
EFTSL Value:	0.125
Prerequisites:	Nil.
Typical study commitment:	Students will on average spend 10 hours per week over the teaching period undertaking the teaching, learning and assessment activities for this unit.
Scheduled learning activities:	4 timetabled hours per week, 6 personal study hours per week.
Other resource requirements:	Access to a Computer, Notepad++, Google Chrome, MySQL, W3Schools PHP Server.

Unit description

The purpose of this course is for students to understand necessary techniques for developing client/server applications at the web level. The course focuses on designing and developing web-based applications using a variety of programming languages and tools like PHP and Python. Students will be exposed to Internet application development architecture. Class projects include developing business-to-consumer (B2C) and business-to-business (B2B) applications, among others. Development skills include presenting and receiving information through a web site, validating entered information and storing entered information in text files or databases. Students develop an understanding of the principles of web page and web site design; standard object models, and the use of server-side programs for database and file access; testing, software quality assurance; and the process of publishing Web sites. This hands-on PHP and Python programming course uses open-source software (PHP, Python, JavaScript and MySQL) to provide the student with a fundamental programming background.

Unit learning outcomes (ULO)

	On the successful completion of this unit student will be able to:
ULO1	Write syntactically and stylistically correct HTML documents and CSS style sheets.
ULO2	Correctly define and use fundamental terms and concepts related to web development.
ULO3	Comprehend and propose Web Application infrastructure.
ULO4	Apply client/server communication techniques such as server, application, session variables, cookies and server behaviours.
ULO5	Determine the needs for web database and connectivity.
ULO6	Develop a functional web application.

Topics to be included in the unit

1.	Internet and Web Protocols
2.	Client-Server Architecture
3.	Web Software with HTML and CSS
4.	Interfacing with Databases
5.	Web Application Components
6.	Authentication and Validation
7.	Principles of Web Application Design
8.	Web Application Infrastructure
9.	Application Development with JavaScript
10.	Application Development with PHP
11.	Web-Based Database Application Development with MySQL
12.	Performance and Reliability

Assessment

Assessment Description	**Grading and weighting (% total mark for unit)**	**Due date**
Assessment 1: Class Participation	10%	Weeks 1-12
Assessment 2: Web Application Design & Development	20%	Week 9
Assessment 3: Application Design & Development (Group)	30%	Week 12
Assessment 4: Final exam	40%	Final exam week