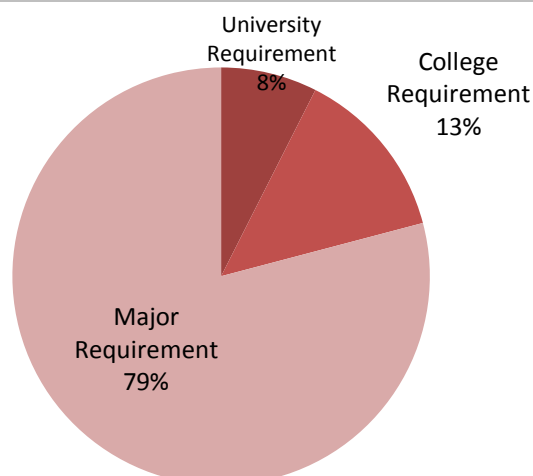


Associate Diploma in Web and Multimedia Development–2018

Program Components

Course Type	CRD
University Requirement (UR)	5
College Requirement (CR)	9
Major Requirement (MR)	52
Training (Internship) Yes	1
Total Credit (CRD)	67



Teaching Language: English

Detailed Study Plan

Year 1 - Semester 1

Course Code	Course Title	Course Hours			Course Type	Pre requisite	Major GPA
		LEC	PRAC	CRD			
CSA 101	Introduction to IT	2	3	3	MR	-----	Yes
CSA 106	Programming fundamentals	2	3	3	MR	-----	Yes
MATHA 111	Applied Mathematics	3	0	3	CR	-----	No
HRLC 107	Human Rights	2	0	2	UR	-----	No
HIST 122	Modern History of Bahrain and Citizenship	3	0	3	UR	-----	No
CSA 126	Introduction to Digital Imaging for Multimedia & Web	2	3	3	MR	-----	Yes

Year 1 - Semester 2

Course Code	Course Title	Course Hours			Course Type	Pre requisite	Major GPA
		LEC	PRAC	CRD			
ENGL 154	Language Development I	3	0	3	CR	-----	No
CSA 127	Fundamentals of Graphics Design	2	3	3	MR	CSA 126	Yes
CSA 121	Databases Fundamentals	2	3	3	MR	CSA 101	Yes
CSA 131	Fundamentals of Web Development	2	3	3	MR	CSA 101 & CSA 106	Yes
CSA 136	Interactivity and Interface Design	2	3	3	MR	CSA 101	Yes
CSA 146	Advanced Programming	2	3	3	MR	CSA 106	Yes

Year 2 - Semester 3

Course Code	Course Title	Course Hours			Course Type	Pre requisite	Major GPA
		LEC	PRAC	CRD			
ENGL 155	Language Development II	3	0	3	CR	ENGL 154	No
CSA 231	Web /Mobile Applications Development	2	3	3	MR	CSA 131 & CSA 136	Yes
CSA 241	Digital Video and Audio Production	2	3	3	MR	CSA 126	Yes
CSA 271	Multimedia Animation Tool and Techniques	2	3	3	MR	CSA 127	Yes
CSA 276	Data Driven Websites & Applications	2	3	3	MR	CSA 146 & CSA 121	Yes
CSA 281	3D Modelling and Animation	3	3	4	MR	CSA 127	Yes

Year 2 - Semester 4

Course Code	Course Title	Course Hours			Course Type	Pre requisite	Major GPA
		LEC	PRAC	CRD			
CSA 266	Web Server Administration	2	3	3	MR	CSA 276	Yes
CSA 261	Advanced Digital Video and Audio Production	2	3	3	MR	CSA 241	Yes
CSA 291	Selected Topics in Web and Multimedia	2	3	3	MR	Passing 45 CRD	Yes
CSA 292	Development and Management of Web and Multimedia Applications	2	3	3	MR	Passing 45 CRD	Yes

Training Requirement

Course Code	Course Title	Course Hours			Course Type	Pre requisite	Major GPA
		LEC	PRAC	CRD			
CSA 298	Professional Internship	0	0	1	MR	Passing 66 CRD	Yes

Course Description

Course Code: CSA 101 **Course Title:** Introduction to IT

This course is an introductory course in information and communication technology (ICT). Topics include foundations in hardware, software, data and an overview of the use of ICT in organizations with application in web and multimedia development

Course Code: CSA 106 **Course Title:** Programming fundamentals

This course introduces problem solving strategies and the use of algorithmic language to describe such problem solving using flowcharts and visual computer programming concepts. It includes basic language elements and blocks, control structures, loops, and visual elements properties and methods.

Course Code: CSA 121 **Course Title:** Databases Fundamentals

This course introduces relational databases, entity relationship diagrams, database interfaces, and SQL. Using RDBMS to create/manage databases. Design user interfaces and fulfill domain requirements.

Course Code: CSA 126 **Course Title:** Introduction to Digital Imaging for Multimedia & Web

This course provides beginning through intermediate concepts in digital imaging. Topics covered include image editing and enhancing, original creation of composite images from photographs and artwork, drawing and painting original digital artwork, and the creation of web graphics. Students will incorporate basic design principles in their digital photographs and compositions.

Course Code: CSA 131 **Course Title:** Fundamentals of Web Development

This course provides students with a foundation of web development elements with emphasis on client-side scripting language using JavaScript. Students also learn how to control page appearance with cascading style sheets (CSS).

Course Code: CSA 136 **Course Title:** Interactivity and Interface Design

This course provides students with the foundation of multimedia interactivity and interfaces design principles, including the psychology of user interaction and methods for designing and developing effective navigational interfaces.

Course Code: CSA 231 **Course Title:** Web /Mobile Applications Development

This course develops students' skills to develop and refine visual appearance using JQuery/JQuery Mobile, building upon students' previous foundation of digital imaging, HTML, CSS, JavaScript, and understanding of usability and accessibility. Students develop an awareness of various Web design styles and genre. They will also develop proficiency through the intermediate level in the use of Web development software

Course Code: CSA 146 **Course Title:** Advanced Programming

This course builds on the students' previous programming background to develop further applications of programming techniques which includes arrays, functions and code reuse, file access, database, error handling, and code optimization.

Course Code: CSA 241 **Course Title:** Digital Video and Audio Production

This course introduces students to Video/Audio solutions for broadcast, production, corporate, education, medical, and government markets. It introduces the basic Video/Audio formats, capture video/audio streams, video/audio converters, and basic and advance editing using video/audio software.

Course Code: CSA 127 **Course Title:** Fundamentals of Graphics Design

This course develops the fundamental skills involved in graphic design including typography, color theory, and layout. Students will learn and apply the principles of graphics design to create visual concepts to communicate and inspire consumers through images, websites layouts and printed pages. They will learn how to promote, brand, print, and save images for use on the web and multimedia applications.

Course Code: CSA 261 **Course Title:** Advanced Digital Video and Audio Production

This course develops students' ability to create, apply and incorporate professional motion graphics, advanced composition techniques and video/audio effect in their digital video to generate professional video streams to be used in web, multimedia applications and TV.

Course Code: CSA 266 **Course Title:** Web Server Administration

Introduces students with theoretical and practical aspects of web servers, users, and servers infrastructures. The course will provide you with the necessary knowledge and skills to enable students to perform basic server administration tasks in a network operating system environment, Students will also learn how to Install and configure web servers as well maintaining servers' environment.

Course Code: CSA 271 **Course Title:** Multimedia Animation Tool and Techniques

In this course, the students will learn and apply the principles of animation to create animations for web and multimedia applications using various animation methods. This course also develops students' skills to create interactive animations and multimedia applications.

Course Code: CSA 276 **Course Title:** Data Driven Websites & Applications

This course explores the strategies and issues surrounding online, server based websites and applications that rely on a database server. Through the exploration of server side scripting languages. Topics includes create databases, connect to data services and ultimately read from and write to a data server. A strong emphasis will be placed on semantics, syntax, and integration.

Course Code: CSA 281 **Course Title:** 3D Modelling and Animation

This course introduces students to the 3D design and animation concepts including modelling, texture mapping, animation, lighting and rendering. Students will learn how to create 3D objects and environments, apply textures and surface mapping, use various lights sources and cameras, create 3D animations, and use different rendering techniques.

Course Code: CSA 291 **Course Title:** Selected Topics in Web and Multimedia

%%This course will introduce students to advanced topics in web and multimedia, it aims to give the students the ability to learn and apply advanced skills that are not covered in their syllabus.

Course Code: CSA 292 **Course Title:** Development and Management of Web and Multimedia Applications

In this course the students will plan, design, develop and manage web and multimedia application. Students will learn how to prepare a strategic plan, task analysis, set project budget and schedule. This course will develop their ability to demonstrate and apply their skills in various case-studies of web and multimedia.

Course Code: CSA 298 **Course Title:** Professional Internship

This course provides students with 8 weeks internship experience as an opportunity to explore career interests while applying their knowledge and skills in a work setting and build professional networks. The Department will assign a faculty advisor for guiding trainees to meet the internship objectives and preparing an internship report. Students will have the flexibility to select an appropriate internship placement.

Note: * - new course descriptions

College Requirement Courses Description

Course Code: ENGL 154 **Course Title:** Language Development I

The first of a series of three integrated language courses designed specifically for IT/CS and CE majors. Special attention is given to IT related vocabulary, reading texts and writing.

Course Code: ENGL 155 **Course Title:** Language Development II

ENGL 155 is the second of three integrated language courses designed for IT students. The level is upper-intermediate.

Course Code: MATHA 111 **Course Title:** Applied Mathematics

The number system, Basic Algebra, Expansion, factorization, Transposition of formula, Solving Equations, Function, Definitions, Sequence and Series Relations, Differentiation, Standard Derivative, Integration and Applications, Matrices.

University Requirements Courses Descriptions

Course Code: HIST 122 **Course Title:** Modern History of Bahrain and Citizenship

Spatial identity of Bahrain: Brief history of Bahrain until the 18th century; the historical roots of the formation of the national identity of Bahrain since the 18th century; the modern state and evolution of constitutional life in Bahrain; the Arabic and Islamic dimensions of the identity of Bahrain; the core values of Bahrain's society and citizenship rights (legal, political, civil and economic); duties; responsibilities and community participation; economic change and development in Bahrain; Bahrain's Gulf, Arab and international relations.

Course Code: HRLC 107 **Course Title:** Human Rights

This course deals with the principles of human rights in terms of the definition of human rights, scope, sources with a focus on the International Bill of Human Rights; The Charter of the United Nations; Universal Declaration of Human Rights; The International Covenant on Economics, Social and Culture rights; Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment; Mechanics and the Constitutional Protection of Rights and Public Freedoms in Kingdom of Bahrain.