

<b>Full Title:</b>	Web Application Development
<b>Language of Instruction:</b>	English
<b>Module Code:</b>	PROG C7004
<b>Credits:</b>	10
<b>Valid From:</b>	Semester 1 - 2016/17 ( September 2016 )
<b>Module Delivered in</b>	<a href="#">3 programme(s)</a>
<b>Module Description:</b>	Students completing this module will be well versed in designing, implementing and deploying a fully maintainable, professional looking dynamic cloud based development capable of being viewed over a variety of devices.
<b>Learning Outcomes:</b>	
<i>On successful completion of this module the learner should be able to</i>	
<ol style="list-style-type: none"> <li>1. Critically evaluate the issues that need to be addressed when designing and developing a cloud application</li> <li>2. Design, implement and test a content heavy database-driven cloud application.</li> <li>3. Apply appropriate technology to support client requirements</li> <li>4. Critically evaluate and address the implementation of work-flow processes in the context of a cloud based development</li> <li>5. Understand the issues involved in designing multi platform compliant cloud based applications</li> <li>6. Understand the role Web services play in modern cloud applications</li> <li>7. Demonstrate competency in presenting technical understanding of a project</li> </ol>	

**Module Content & Assessment**

<b>Indicative Content</b>
<b>Design Theory</b> Story-boarding / Application narrative. Identifying the application rules, managing the content, designing across multiple platforms.
<b>Content Identification</b> Types of content / how to identify content / how to discover content and content database design
<b>Work Flow / Business rules</b> How to develop and implement business work flow rules / processes. Server side process implementation and verification
<b>Target Audience</b> How to identify target audience types and their requirements and its impact on the narrative. Target device / browser impact in a HTML5 environment
<b>HTML5 / CSS3</b> Using stylesheets to control the look and feel of web sites. How to separate presentation from content. Advance use of responsive design and graphically enhanced displays
<b>Responsive Web Design</b> Techniques to permit the web application to change its appearance to fit multiple screen devices.
<b>Display techniques</b> Using advanced display techniques such as hover / on click / sliding panels / tabbed panels / showcasing / drop-down content / dynamic menus / keyword searching among others.
<b>Search Engine Optimisation</b> Designing for and implementing SEO principles.
<b>Design and implement content Administration capability</b> Design and build the back-office admin site.
<b>Utilising database content</b> Techniques to implement the use of database content
<b>Integrate Plug-ins</b> How to use available plug-in packages and freeware components

<b>Assessment Breakdown</b>	<b>%</b>
Course Work	100.00%

**Full Time**

<b>Course Work</b>							
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Marks Out Of</i>	<i>Pass Marks</i>	<i>Assessment Date</i>	<i>Duration</i>
Continuous Assessment	Advanced HTML5 / CSS3 look and feel	3,5	20.00	0	0	Week 5	0
Continuous Assessment	Utilising database resident content and search CA	2,4,6	20.00	0	0	Week 13	0
Written Report	Storyboard of planned final project, including markups of pages, process flows, work flows etc.	1,4	10.00	0	0	Week 1	0
Continuous Assessment	Major Project	1,2,3,4,5,6,7	40.00	0	0	Week 13	0
Other	Contribution to lab activities and year long SEO project / web traffic analysis CA	1,3,6	10.00	0	0	n/a	0

No Project

No Practical

No End of Module Formal Examination

## Part Time

### Course Work

Assessment Type	Assessment Description	Outcome addressed	% of total	Marks Out Of	Pass Marks	Assessment Date	Duration
Continuous Assessment	Advanced HTML5 / CSS3 look and feel	3,5	20.00	100	40	Week 5	0
Continuous Assessment	Utilising Database resident content and search CA	2,4,6	20.00	0	40	Week 13	0
Written Report	Storyboard of planned final CA project, including markups of pages, process flows work flows etc	1,4	10.00	100	40	Week 1	0
Project	Major Project	1,2,3,4,5,6,7	40.00	0	0	Week 13	0
Other	Contribution to lab activities and year long SEO project / web traffic analysis	1,3,6	10.00	0	0	n/a	0

No Project

No Practical

No End of Module Formal Examination

### Reassessment Requirement

#### No repeat examination

*Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.*

#### Reassessment Description

Repeat CA will consist of an overall project for the module which will combine all learning outcomes. Final project with a companion document detailing the storyboard narrative of the site, the code walk through and database design plus testing plan and results

**DKIT reserves the right to alter the nature and timings of assessment**

### Module Workload & Resources

#### Workload: Full Time

Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Practical	2 2-hour lab based activity	4.00	Every Week	4.00
Independent Study	research current trends and project work	4.00	Every Week	4.00
Total Weekly Learner Workload				8.00
Total Weekly Contact Hours				4.00

#### Workload: Part Time

Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Practical	One 3-hour lab based activity	3.00	Every Week	3.00
Independent Study	Research current trends and project work	5.00	Every Week	5.00
Total Weekly Learner Workload				8.00
Total Weekly Contact Hours				3.00

#### Resources

##### Recommended Book Resources

Chuan, Shi 2012, *HTML5 Mobile Development Cookbook*, Packt Publishing Birmingham GBR [ISBN: 9781849691970]

Tim Kadlec 2013, *Implementing Responsive Design*, 1st Ed., all, Pearson Education 2013 [ISBN: 0-321-82168-8]

*This module does not have any article/paper resources*

##### Other Resources

Website: A Smashing Media Company *Design Portal for HTML5 / CSS3*  
<http://www.smashingmagazine.com/>

Website: *Useful HTML/CSS3 resource with tutorials and articles*  
<http://tympanus.net/codrops/>

### Module Delivered in

Programme Code	Programme	Semester	Delivery
DK_KCOMP_7	<a href="#">Bachelor of Science in Computing</a>	3	Group Elective 1
DK_KCEWD_7	<a href="#">Certificate in Web Development</a>	1	Elective
DK_KCMP7_6	<a href="#">[Exit Award from L7] Higher Certificate in Science in Computing</a>	3	Group Elective 1