Module code: SS-4306

Module Title: Science of Multimedia

Degree/Diploma: Bachelor of Science (Computer Science)

Type of Module: Major Option

Modular Credits: 4

Total student Workload: 10 hours/week

Contact hours: 4 hours/week

Prerequisite: SS-2202 Algorithms and Data Structures

Anti-requisite: None

Aims
This module provides a foundation in the design and production of rich interactive media content suitable for use in commercial, educational and industrial setting.

Learning Outcomes
On successful completion of this module, a student will be expected to be able to:

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<th>Lower order</th>
<th>Middle order</th>
<th>Higher order</th>
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<td>20%</td>
<td>60%</td>
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- explain various techniques involved in multimedia content production
- describe processes involved in multimedia content management
- differentiate between the different compression techniques
- apply and implement compression techniques used in multimedia applications

Module Contents
- Elements in a multimedia content such as sound and audio, image and graphics, animation and video
- Understanding of human sensory perception for effective multimedia presentations.
- Compression and decompression of multimedia contents
- Audio compression, image compression and video compression are subject to fidelity versus size trade-off
- Multimedia applications including data visualization and virtual reality

Assessment

<table>
<thead>
<tr>
<th>Formative assessment</th>
<th>Interactive Quizzes and Feedback</th>
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<tbody>
<tr>
<td>Summative assessment</td>
<td>Examination: 50%</td>
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<td>Coursework: 50%</td>
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<tr>
<td></td>
<td>- 2 class tests (20%)</td>
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<td>- 2 written assignments (30%)</td>
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