

**The University of Sheffield**  
**Department of Information Studies**  
**Module Outline 2009-2010**

<b>Module Title:</b>	<b>Digital Multimedia</b>
<b>Module Code:</b>	<b>INF208</b>
<b>Online Teaching Resources:</b>	MOLE
<b>Pre-Requisites:</b>	None
<b>Status:</b>	Approved module: INFU01, MGTU17, MGTU18 Unrestricted module: any UG
<b>Credits:</b>	20 credits (or 200 learning hours)
<b>Semester:</b>	SPRING
<b>Timetabling:</b>	Lectures: weeks 1-12: Wednesdays 10.00-10.50 : PC-SRB51b Practicals: weeks 1-12: Thursdays 14.10-16.00 : RC-206
<b>Module Coordinator:</b>	Dr. Paul Clough
<b>Other Lecturers:</b>	Dr. Mark Sanderson, Mr. Peter Holdridge
<b>Version Date:</b>	18 <sup>th</sup> January 2010

Digital multimedia plays a key role in many information professions, offering many potential benefits to areas that employ multimedia technologies. Indeed, digital multimedia is already having an impact on activities in the fields of business, entertainment, cultural heritage, education, medicine and journalism. The module provides an introduction to the area of digital multimedia including key concepts and technologies involved in creating/using digital content, and developing multimedia applications. Lectures are structured in two main areas: (1) the creation and use of digital media (e.g. images, videos and sounds), and (2) the production of multimedia applications. Combined with a series of practical lab-based sessions based on Adobe Flash, you are provided with skills enabling you to design and create simple multimedia applications.

**Module Aims:**

The overall educational purpose of the Digital Multimedia course is to provide you with an introduction to digital multimedia. Objectives of the course are (1) to teach you how to design and develop multimedia applications and (2) enable you to develop practical skills to design and implement such applications using Adobe Flash.

**Learning Outcomes:**

On successful completion of the module, you will be able to:

1. Explain the term digital multimedia and its differences with “traditional multimedia”.
2. Explain the techniques used to create and combine different media types.
3. Discuss key issues surrounding the design and production of multimedia applications.
4. Recognise the role multimedia plays in different application areas and the challenges they present.
5. Design an Adobe Flash application that demonstrates use of multimedia.
6. Implement a multimedia application using Adobe Flash.
7. Employ criteria to judge the effectiveness of applications developed using Adobe Flash.

**Learning Methods:**

You will be taught theoretical aspects of digital multimedia through formal lectures, with contributions from guest speakers to demonstrate practical applications of multimedia technology. The knowledge acquired in the lectures will be assessed through a formal examination (learning outcomes 1-4). First-hand experience of creating/manipulating multimedia data and integrating these into an application will be gained through a series of practical sessions (2hrs). The focus of these sessions will be learning to produce a multimedia application in Adobe Flash to demonstrate principles of multimedia design (learning outcomes 5-6) and evaluation (learning outcome 7).

**SPECIAL NOTE:** This elective has a substantial practical component and students will be using professional software to manipulate and combine media: **Adobe Flash**. Although tutorial support is provided, students with no previous experience are suggested to allocate some extra time to familiarise themselves with the packages in order to fulfil the coursework requirements.

**Assessment:**

The assessment will consist of two individual components and **a pass mark in both components is required** in order to pass the module as a whole:

- 1) Design, implement and evaluate a multimedia application based on Flash. (60% weighting).
  - a) Report describing the planning and design of a multimedia application (60%)
  - b) Implementation of multimedia application in Flash (40%)
- 2) A formal examination on concepts of digital multimedia. (40% weighting).
  - a) Series of short questions (50%)
  - b) Essay-style question (50%)

<b>Coursework submission date:</b>	Flash application: 4pm Thursday Week 11 (13 <sup>th</sup> May) Final report: 2pm Friday Week 12 (21 <sup>st</sup> May)
<b>Coursework will be returned to students by:</b>	End Week 15 (11 <sup>th</sup> June)

**Syllabus:**

	Lectures		Practicals (Adobe Flash)*	
1	Introduction to digital multimedia	PC	Introducing Flash	PC
2	Enabling technologies	PC	Getting started with Flash and creating a basic animation	PH
3	Digital images	PC	Creating graphics and implementing layers and groups	PH
4	Digital sound	PC	Using symbols and the Library, and working with text	PH
5	Digital video	MS	ActionScript and importing graphics	PH
6	Multimedia applications - TBC		Animation and adding sounds	PH
7	Animation	PC	Application development, advanced tweening and video	PH
8	Multimedia application design - basic design principles	PC	Using media types, publishing Flash content and coursework guidance	PC/ PH
9	Multimedia application design - further design methods	PC	Coursework surgery on request	PH
10	Multimedia application design - development and production		Coursework surgery on request	PH
11	Future trends in digital multimedia	PC	Evaluation Session (for Level 3 students)	PC/ PH
12	Exam revision session		No practical session	

\*Additional (unsupervised) sessions in RC-206 will be scheduled to enable further use of Flash

## References:

In addition to the recommended books below, a number of relevant papers on specific topics will be recommended (these will be given during individual lectures). All the papers are electronically accessible, therefore every student will be able to download them free of charge.

### Theoretical

- **Cunliffe, D. and Nigel, E. Multimedia Computing, Lexden Publishing Ltd, 2005, ISBN 1904995050. [highly recommended to purchase]**
- Lengel, J. The Web Wizard's Guide to Multimedia, Pearson Education Inc., 2002, ISBN 0201745615.
- Chapman, N. and Chapman, J. Digital multimedia (2<sup>nd</sup> Edition), Chichester, New York: Wiley, 2003, ISBN 0470012277.
- Sharp, H., Rogers, Y. and Preece, J. Interaction Design (2<sup>nd</sup> Edition), Chichester, New York: Wiley, 2007, ISBN 978-0-470-01866-8 (see also <http://www.id-book.com/> and <http://www.interaction-design.org/>).

### Practical

- **Anderson, A. and Johnson, S. Flash 8 on Demand, Que Publishing, 2005, ISBN 0789734699. [highly recommended to purchase]**
- Blake, B. and Sahlin, D. How to do everything with Flash 8, New York; London: McGraw-Hill/Osborne, 2006.
- Chapman, N. and Chapman, J. Digital Media Tools (3<sup>rd</sup> Edition), Chichester, New York: Wiley, 2007, ISBN 0-470-01227-7 (see also <http://www.webdesignbook.org/OurBooks/dmt.html>).
- Reinhardt, R. and Dowd, S. Macromedia Flash 8 Bible, New York: Wiley, 2006, ISBN: 978-0-471-74676-8.

### Online Flash Material

- Flash Journalism <http://flashjournalism.com/> [site accessed: 22/01/2008]
- W3CSchools Flash Tutorial <http://www.w3schools.com/flash/default.asp> [site accessed: 22/01/2008]
- Macromedia Flash Support Centre [http://www.adobe.com/support/flash/tutorial\\_index.html](http://www.adobe.com/support/flash/tutorial_index.html) [site accessed: 22/01/2008]
- Flash 8 Tutorials [http://www.video-animation.com/flash8\\_001.shtml](http://www.video-animation.com/flash8_001.shtml) [site accessed: 22/01/2008]