

# Computer Assisted Radiology

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**Title:**

Computer Assisted Radiology

**Module/Course Code:**

TBA

**Module/Course Title:**

Computer Assisted Radiology

**Details of any courses replaced by this course:**

None.

**Normal year of study:**

MSc

**Course level:**

Postgraduate

**Course value:**

15 credits

**Programmes in which this course is offered:**

Mandatory for MSc Medical Image Computing.

**Prerequisites:**

None

**Unsuitable for disabled?:**

No

**Exam Board:**

Medical Physics and Bioengineering

**Department teaching this course:**

Medical Physics and Bioengineering

**Course organiser:**

Name: Dr David Atkinson

Email: D.Atkinson@ucl.ac.uk

Phone: 30201

**Faculty:**

Engineering Sciences

**Can this course be taken as a short course?:**

Not at present - please contact us if interested.

**Is this course open to part-time or affiliate students?:**

The course is open to part-time students of the MSc in Medical Image Computing.

**Availability:**

The module is available only to students on the 'Medical Image Computing' MSc in the Engineering Faculty.

**Learning time:**

Lectures: 30

Tutorials: 3

Laboratory classes:

Report and coursework writing: 34

Independent project work: 34

Private Study: 40  
Revision: 0  
TOTAL: 141

**Assessment:**

Written exams (closed book): None  
Written exams (open book): None  
Oral exams or vivas: None  
Written coursework: weighting 100%.  
Practical exams: None

**Teaching load:**

Lectures (incl. preparation): 60  
Tutorials (incl. preparation): 6  
Laboratory classes (incl. preparation): 0  
Marking of coursework: 25  
Marking of exam scripts: 0  
Annual revision time (e.g. revision of lecture notes and problem sheets): 0  
Other annual administrative load related to this module: 20

**If this course is taught in programmes with different level of award, give details.:**

Not applicable

**Educational aims:**

To provide students with an understanding of how computers can assist in making a diagnosis from medical images.

**Course syllabus (outline):**

\* Human and Computer Reasoning and Perception \* Computer Aided Diagnosis. \* Knowledge Representation and Ontologies \* Uncertainty \* Machine Learning

**Intended learning outcomes:**

Upon successful completion of this module, students will: \* know the fundamentals of computer assisted radiology...

**Reading list:**

A reading list for the complete MSc in Medical Image Computing will be available from the course web site at <http://www.ucl.ac.uk/cmhc/msc>

**Details of any distance learning available:**

None available

**Details of any offsite teaching:**

None available

**Starting and review dates:**

Starting date: September 2007  
Date of the last review: Not applicable  
Date of the next review: September 2008

**Other Departments to which access is required:**

Not applicable

**How will the course be monitored?:**

Student questionnaires, peer observation of teaching, staff/student committee, and periodic reviews by the Departmental Teaching Committee

**Student numbers:**

20 from MSc in Medical Image Computing at steady state.

**UG/PG overlap:**

None

**Assessment at different levels:**

N/A

**Is this course taught by more than one Department? If so, give details.:**

A significant portion of the module will be taught by Dr Paul Taylor of CHIME. (Centre for Health Informatics and Multiprofessional Education)

**Proportion of teaching in other departments:**

80%?

**Additional costs to students:**

None

**Additional resources:**

None

**Setup costs:**

Set up costs are covered by EPSRC CTA funding.

**Knowledge:**

\* computer assisted radiology

**Knowledge teaching methods:**

Specialist knowledge is acquired through a combination of lectures, demonstrations, laboratory classes, computer based tasks, independent study and case studies.

**Knowledge assessment methods:**

Coursework.

**Intellectual skills:**

\* The ability to analyse a problem and use appropriate scientific and professional tools to solve it. \* The ability to evaluate and confront different methodologies of problem solving, development and design, develop critiques of them and propose alternative avenues where appropriate. \* The ability to understand and analyse information and data. \* Creativity and independence of judgement.

**Intellectual skills teaching methods:**

Intellectual skills are taught at the same time as specialist knowledge, using the same teaching methods.

**Intellectual skills assessment methods:**

Intellectual skills are assessed at the same time as specialist knowledge, using the same assessment method.

**Practical skills:**

\* ?

**Practical skills teaching methods:**

Practical skills are part of this module. They will be taught in laboratory classes and by independent learning.

**Practical skills assessment methods:**

Practical skills are assessed through coursework.

**Transferable skills:**

\* The ability to use information technology effectively.

**Transferable skills teaching methods:**

Transferable skills are taught at the same time as specialist knowledge, using the same teaching methods.

**Transferable skills assessment methods:**

Transferable skills are assessed at the same time as specialist knowledge, using the same assessment method.

**Amendments:**

None.

**Departmental approval:**

Name:  
Position:  
Date:

**External approval:**

Name:  
Position:  
Date:

**Faculty approval:**

Name:  
Position:  
Date:

**College approval:**

Name:  
Position:  
Date:

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