



Welcome

MSc in Advanced Computing
2011

Steve Gregory

MS50: CS Conversion	1.06 MVB	Majid Mirmehdi 
MS51: Machine Learning, Data Mining, & HPC	Steve Gregory	
MS52: Creative Technology		
MS53: Internet Technologies & Security		
MS55: AMSE	4.01 MVB	Paul Warr 

1989

Foundations of AI

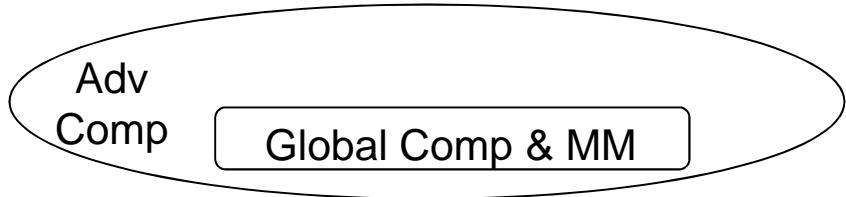
1992

CS (conversion)

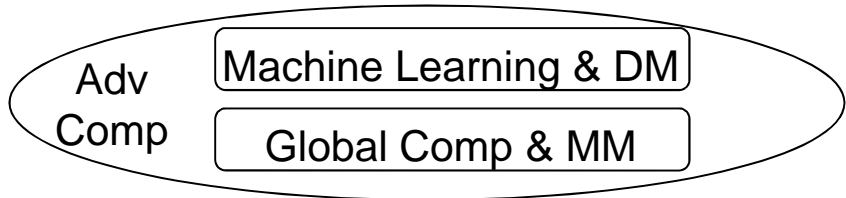
1995



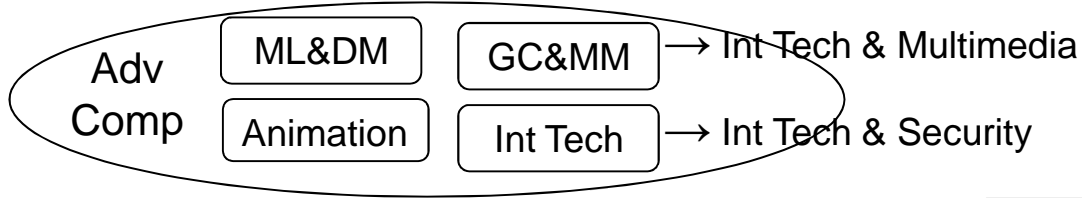
1997



1998



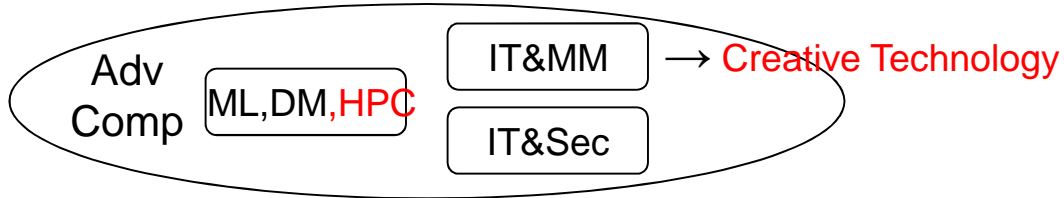
2005



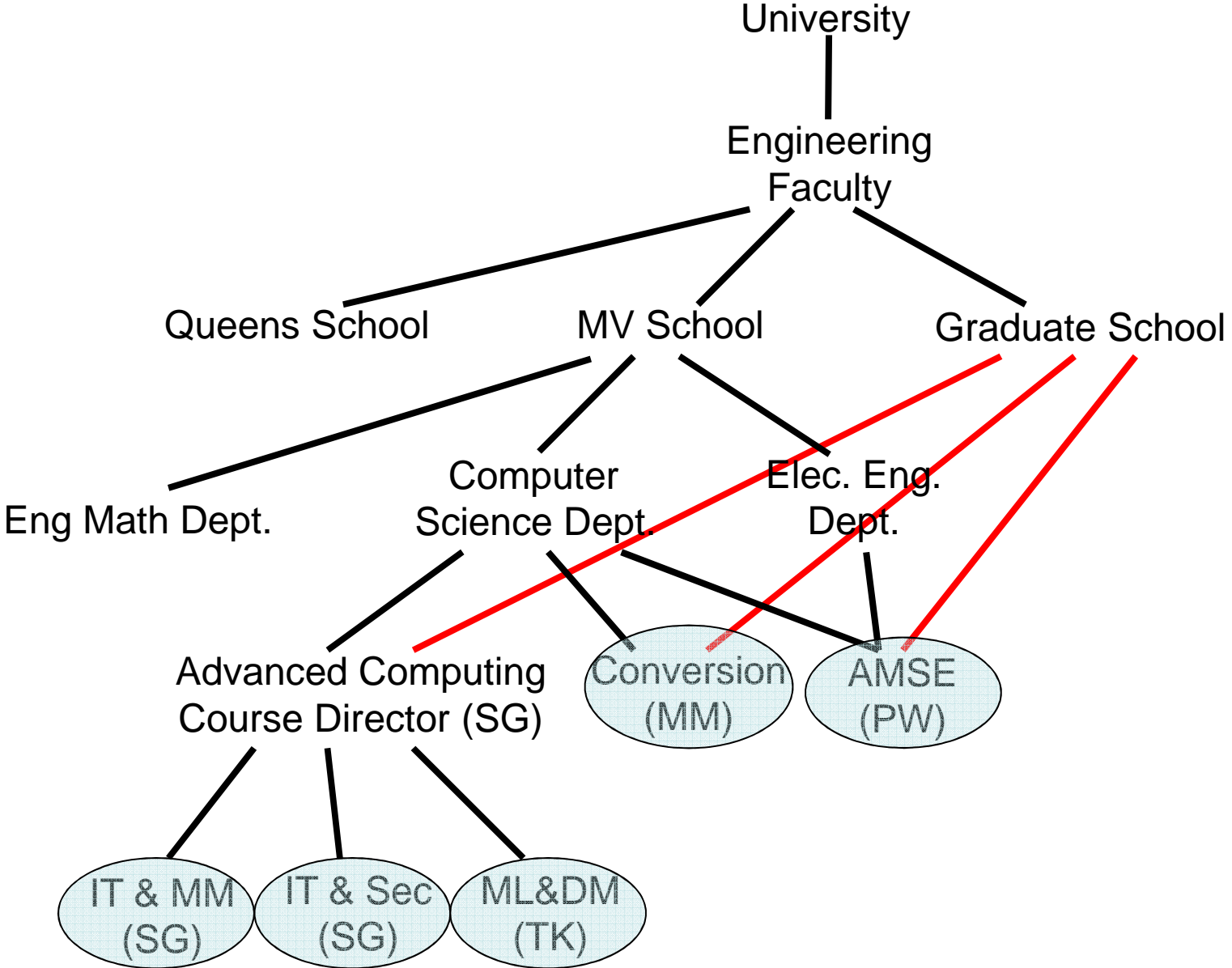
2006

AMSE

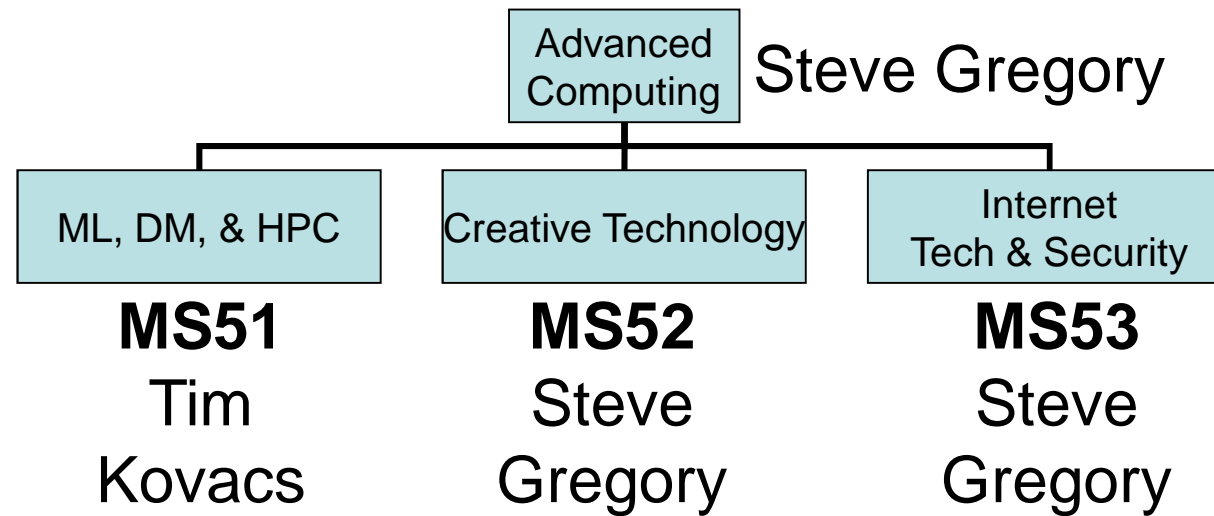
2008



Structure



Advanced Computing MSc



Creative Technology

Computer Graphics (10)
Production Project (10)
Character and Set Design (10)
Animation Production (10)
Image Processing and Computer Vision (10)
Mobile and Ubiquitous Computing (10)
Computational Neuroscience (10)
Robotic Systems (10)
<i>Algorithmic and Economic Aspects of the Internet (10)</i>
<i>Learning in Autonomous Systems (10)</i>
<i>Programming in C (20)</i>
Research Skills (20)
Individual Project (60)

Internet Tech with Security

Cryptography A (10)
Cryptography B (10)
Systems Security (10)
Applied Security (10)
Server Software (10)
High Performance Computing (10)
Advanced Algorithms (10)
Algorithmic and Economic Aspects of the Internet (10)
<i>Mobile and Ubiquitous Computing (10)</i>
<i>Introduction to Machine Learning (10)</i>
<i>Programming in C (20)</i>
Research Skills (20)
Individual Project (60)

Machine Learning, Data Mining, and High Performance Computing

Ask Tim

Information

Email:

- All important announcements sent to your UoB email address. Check often.

Dept. website:

- `www.cs.bris.ac.uk/theindex.html`
- See Advanced Computing pages, including MSc FAQ.
- Secure parts need your UoB password.

Streams

Stream F:

C Programming (20CP) in 1st semester

Stream E:

2 other units (2 x 10CP) in 1st semester,
depending on your programme
(MS51/MS52/MS53).

Streams

Stream F:

If you don't have much C (or Java for MS51) programming experience, **you must do this.**

Stream E:

If you have C (or Java for MS51) programming experience, **you are advised to do this.**

(More choice of projects later.)

Streams

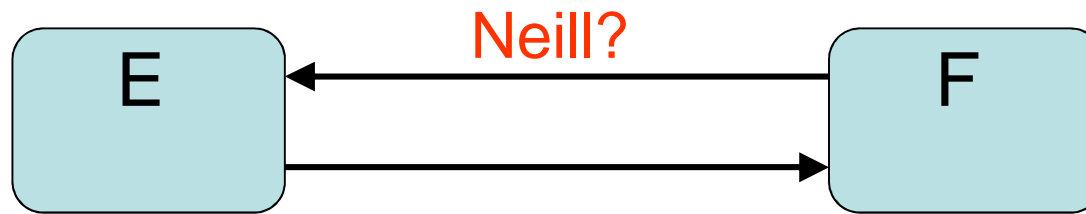
Stream F:

Tell me if you want to do it.

Stream E:

- MS51 (Machine Learning):
Must pass Java test or C test.
- MS52/53 (all others):
Must pass C test.

Streams



Streams

If on stream F:

Are you sure you don't need the
Advanced units?

If on stream E:

Are you sure you can cope with the
stream-E units?

Extra units

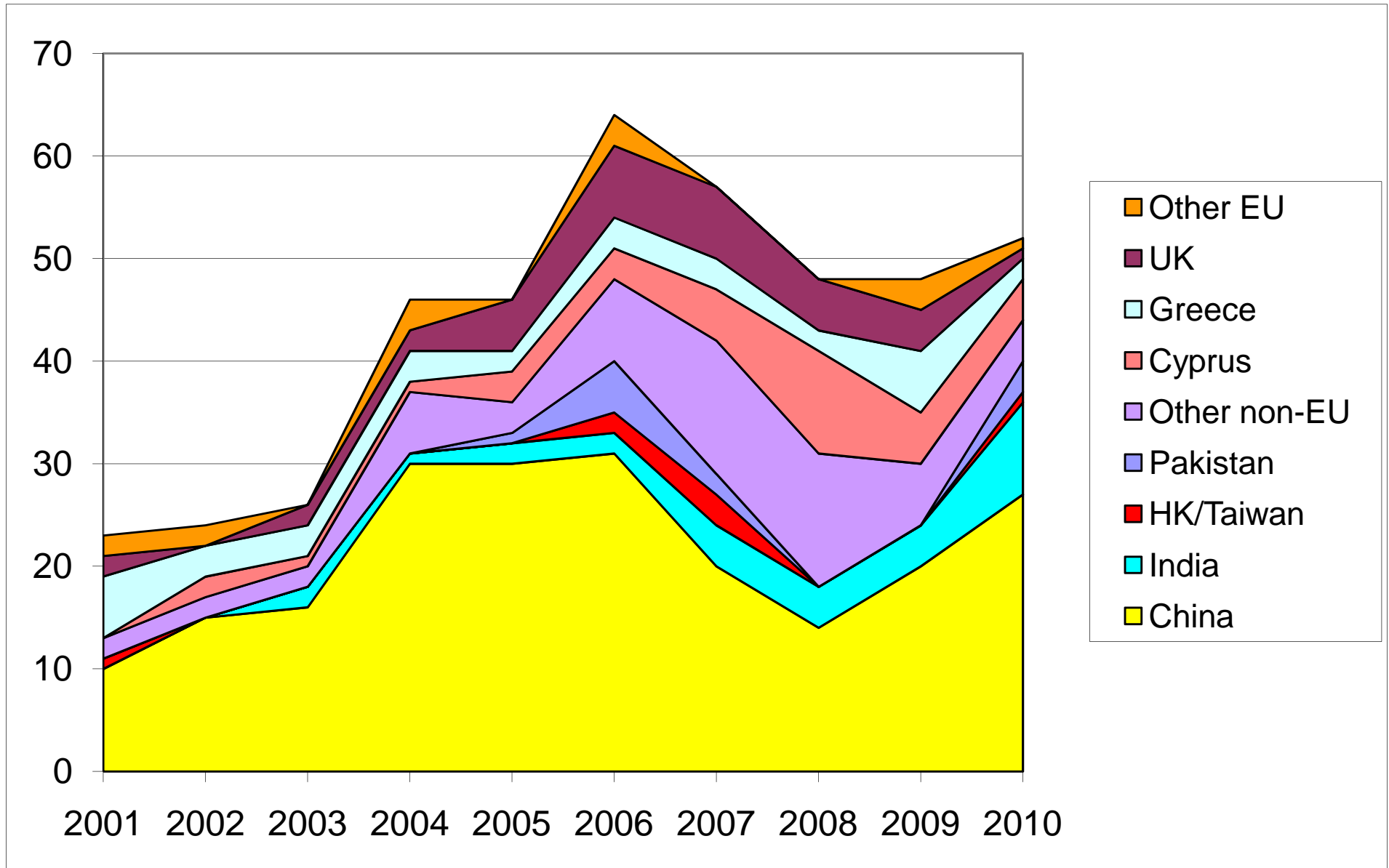
You can attend units outside your stream/course:

- Attend lectures only, not for assessment.
Just check with lecturer.
- *Or* attend lectures and take assessment:
mark will appear on transcript but not count
towards degree.
Register as *voluntary* unit.
Extra fee required!

Some statistics (Advanced Computing)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Applications	234	444	541	603	439	490	367	415	478	627	620
Offers	99	150	222	316	259	305	273	288	328	432	366
Students	29	33	40	65	65	88	76	60	60	71	78
MS51 ML/DM/HPC	6	9	14	19	10	18	12	12	12	19	26
MS52 Creative	23	24	26	46	17	17	18	14	14	14	14
MS53 Security					28	47	39	34	34	38	38
MS54 Animation					10	6	7				

Some statistics (MS52/53)



Terminology

- *Unit* (= “module” or “course”):
set of lectures etc. on one subject. Usually worth 10 or 20 CP.
- *CP* or *credit point* or *credit*:
represents amount of work. Whole MSc = 180 CP. UG degree = 360 CP.
- *Programme* (= “course”):
set of units leading to a degree.
- MS52 (in Dept and Faculty) = 4COSC011T (in Uni) = MSc Advanced Computing (Creative Technology).
- *Semester* or *teaching block*:
weeks 1-12 and 13-24.

Timetable

Semester 1

Semester 2

Week	Date	Week	Date
1	10-Oct-2011	13	30-Jan-2012
2	17-Oct-2011	14	6-Feb-2012
3	24-Oct-2011	15	13-Feb-2012
4	31-Oct-2011	16	20-Feb-2012
5	7-Nov-2011	17	27-Feb-2012
6	14-Nov-2011	18	5-Mar-2012
7	21-Nov-2011	19	12-Mar-2012
8	28-Nov-2011	20	19-Mar-2012
9	5-Dec-2011	21	23-Apr-2012
10	12-Dec-2011	22	30-Apr-2012
11	16-Jan-2012	23	7-May-2012
12	23-Jan-2012	24	14-May-2012

Exams

Exams

Teaching methods

- Lectures
- Laboratory classes
- Help Desk: for coursework/programming advice
- Coursework
- Project work

Assessment methods

- Exams: January (some semester 1 units) & May/June (remaining units)
- Coursework
- Project work

Workload

Total: 180CP \approx 1800 hours

- October – January: 60CP
- January – May: 60CP (inc. 20CP project-related)
- June – September: 60CP (project)

Holidays?

Work?

Department (Linux) lab

- 2.11(MV): 80 machines

Faculty (Windows) labs

- 1.07(MV)
- 1.08(MV)

Keeping in touch

- Weekly talk (first two weeks):
More information and questions.
 - Drop in to 3.21(MV): email first if > 1 minute!
 - Email (any time).
-
- Check email frequently.
 - Look at Dept. web site, especially programme page and timetable (subject to change)

Advice

- Check email frequently
- See Dept. web site, especially course pages & FAQ
- Read Dept. Handbook
- Ask for help: course director, lecturers, help desk, ...
- Find out how to do coursework, exams, etc.
- Manage time carefully
- Submit coursework on time
- Submit own work (don't copy text or code)

Cohort Profiles - Mozilla Firefox

File Edit View History Bookmarks Tools Help




brs.ac.uk https://wwwa.fen.bris.ac.uk/2011-2/coms/people/students.jsp?cohort=1MS52

Cohort Profiles dept << 2011-2 >>

1MS52 (2011-2)

MSc Advanced Computing - Creative Technology

Students = 16 | [Email Cohort](#) | [Notes](#) | [CSV Email List](#) | [Marksheet](#)

				
1. Miss Yike Fang 1MS52	2. Miss Tsu-Ting Kao 1MS52	3. Mr Haolin Li 1MS52	4. Mr Kuo-Kai Lin 1MS52	5. Miss Meihua Piao 1MS52
Photo Unavailable			Photo Unavailable	
6. Mr Ricardo Rendon Cepeda 1MS52	7. Mr Tao Shi 1MS52	8. Mr Lide Su 1MS52	9. Miss Livitha Sundararajan 1MS52	10. Mr Sheng Wang 1MS52

Faculty Profiles yf1586 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

brs.ac.uk https://wwwa.fen.bris.ac.uk/2011-2/coms/people/person.jsp?usern...586&id=s2067 Secure Search

Faculty Profiles [redacted] dept << 2011-2 >>

[redacted] **student**

Profile Info



[Username: \[redacted\]](#) | [Email](#) | [Unit Choice](#) | [Assessments](#) | [Transcript](#)
[Profile:](#) [redacted] 2011-2

Position: MSc Student | **Cohort:** 1MS52 | [Edit Marksheet](#) | **Degree:** MSc Advanced Computing - Creative Technology

Route: 4COSC011T | **Reg Type:** R | **Data Consent:** no | **Address/Tel:** [View](#)

Candidate: [redacted] | **Student:** [redacted] | **Person:** [redacted] | **Details:** [My Students](#)

Department: Computer Science / [coms](#) | **Personal Tutor:** [Dr Steve Gregory](#)

Supervisor: Not allocated | **Advisor:** Not allocated | [\[Edit Tutors \]](#)

[Filestore](#) | [Progress](#)

Units

Unit Code ↓	Position	Credits	Title	Assessments	Students
COMS30121	S	10	Image Processing and Computer Vision	0	114
COMS31000	S	10	Character and Set Design	0	70
COMSM0001	S	10	Production Project	0	22
COMSM0106	S	10	Mobile and Ubiquitous Computing	0	84
COMSM0305	S	10	Learning in Autonomous Systems	0	67
COMSM1105	S	10	Animation Production	0	28
COMSM2006	S	10	Algorithmic and Economic Aspects of the Internet	0	107
COMSM2115	S	10	Computer Graphics	0	17
COMSM2127	S	10	Computational Neuroscience	0	19
COMSM2202	S	20	Research Skills	0	131
COMSM3100	S	60	MSc Advanced Project	0	101
COMSM4111	S	10	Robotic Systems	0	81

Total Credits = 180

Secure Search McAfee

https://www.bris.ac.uk/syllabus-plus/tt2011/programme.asp

Bristol University | Syllabus+ - Mozilla Firefox

File Edit View History Bookmarks Tools Help

← → bris.ac.uk https://www.bris.ac.uk/syllabus-plus/tt2011/programme.asp

SYLLABUS+ View 2011 - 2012 Syllabus+ Timetables

Welcome
View Room Bookings
View Programme Timetables
View Unit Timetables
Login to Syllabus+ (Authorised users only)

Programmes

Filter by Faculty: Faculty of Engineering

Filter by Department: Computer Science

Select Year: Year 1

Select Programme(s):
4COSC007U1 - Computer Science with Study in Continental Europe (MEng) Year 1
4COSC008U1 - Computer Science (MEng) Year 1
4COSC009T1 - Advanced Microelectronic Systems Engineering (MSc) Year 1
4COSC010T1-man - Advanced Computing - Machine Learning, Data Mining and Intelligent Systems (MSc) Year 1
4COSC011T1 - man - Advanced Computing - Creative Technology (MSc) Year 1
4COSC011U1 - Computer Systems Engineering (MEng) Year 1

Select Week(s):
This Week
Next Week
ALL: All teaching weeks
ALL: All teaching weeks + week 0
ALL: All teaching weeks any time

Select Days: Monday - Friday

Select Start/End Time: Working Day (09:00 - 18:00)

Select Print Style:
Grid
List (by Day)
List (by Week)
List (by Week) with dates ** VETS AND MED ONLY **
List (by Week) with dates and student groups ** VETS AND MED ONLY **

View Timetable

Updated 12 August 2009 by Information Systems and Computing | Feedback

Secure Search McAfee

Deadlines

The screenshot shows a Mozilla Firefox browser window displaying the COMSM2001 Coursework Repository. The page title is "COMSM2001" and the URL is "https://wwwa.fen.bris.ac.uk/COMSM2001/Ass1/37295/index.jsp?anon=waived". The page content includes navigation tabs for "dept", "unit", "progress", and "issues", and a "2010-1" dropdown menu. The main heading is "Assignment Ass1" with a redacted student ID. The candidate number is "37295" and the email is redacted. The deadline is "Mon 21 Mar 2011" (circled in red), with a "Day Late" date of "Tue 22 Mar 2011" and a "Week Late" date of "Mon 28 Mar 2011" (circled in red). The deadline time is "23:59:59 on each deadline date". The "Submissions" section shows "Files submitted on time: No files submitted" and buttons for "Delete marked files", "See Deleted files", "Unzip marked files", and "Notes". The "Submit" section has a "File:" input field with a "Browse..." button and a "Submit:" button. A red "Done" status is visible at the bottom left. Handwritten red annotations include "Lose 10%" with an arrow pointing to the circled deadline, and "1-7 days late: pass mark only" with an arrow pointing to the circled "Week Late" date.

COMSM2001 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

brs.ac.uk https://wwwa.fen.bris.ac.uk/COMSM2001/Ass1/37295/index.jsp?anon=waived

COMSM2001 dept unit progress issues 2010-1

Coursework Repository Server Software

Assignment Ass1 [redacted] Candidate No. 37295 | Email: [redacted] | Marks Entry

Deadline: Mon 21 Mar 2011 | Day Late: Tue 22 Mar 2011 | Week Late: Mon 28 Mar 2011

Deadline Time: 23:59:59 on each deadline date

Submissions

Files submitted on time:
No files submitted

Delete marked files See Deleted files Unzip marked files Notes

Submit [Timeframe: Within deadline]

File: [input field] Browse...

Submit: Submit On Time submission [redacted]

Done

Lose 10%

1-7 days late: pass mark only

MSc assessment

MSc = taught part (120CP) + project (60CP)

Most units are level-7 (COMSM.....).

Some units are level-6 (COMS3.....).

- Pass 180CP (taught part and project): MSc.
- Pass 120CP, including 90CP level-7:
PG Diploma. *Most* people do this in taught part.
- Pass 60CP, including 40CP level-7:
PG Certificate.

How to pass taught part

Get average mark of $\geq 50\%$ for taught part (120CP)
and

Pass every unit in taught part.

How to pass a taught unit

- Get a mark above the pass mark
($\geq 50\%$ for level-7 units, $\geq 40\%$ for level-6 units)

Or.

- Get a mark between 40-49% for a level-7 unit.
- *If* mark is 40-49% for ≤ 30 CP of level-7 units.
= “*Compensated pass*”

What to avoid

To fail taught part:

- Get < 40% in any *one* unit, or
- Get 40-49% in *more than 30CP* of level-7 units

Especially avoid:

- Fail more than 60CP of units:
no chance to resit

Examples

12 x 10CP level-7 units

50 50 50 50 50 50 50 50 50 50 50 50: Pass

40 50 50 50 50 50 50 50 50 50 50 50: Fail (resit 1)

48 48 48 48 99 99 99 99 99 99 99 99: Fail (resit 4)

48 50 50 50 50 50 50 50 50 50 50 52: Pass (comp 1)

40 40 40 50 50 50 50 50 50 60 60 60: Pass (comp 3)

38 99 99 99 99 99 99 99 99 99 99 99: Fail (resit 1)

38 48 48 99 99 99 99 99 99 99 99 99: Fail (resit 1)

48 48 48 48 48 48 48 99 99 99 99 99: Fail (no resit)

Results (taught component)

	<u>2006-7</u>	<u>2007-8</u>
Pass:	35	29
Pass with compensation:	16	7
Fail/resit (failed > 30CP):	0	3
Fail/resit (below 40%):	5	9
Fail (failed > 60CP):	1	3
<hr/>		
TOTAL	57	51

If you don't pass taught part

If fail > 60CP units, fail the course. Otherwise:
Normally can resit failed units (not guaranteed).
Need to resit **all** failed units.

Resit normally consists of only the parts failed. Must get pass mark for those parts!

At most one resit attempt is allowed.

Resit exams: in September.

~~Must pass all resit units: no compensation.~~ **NEW!**

If you pass the resit, mark recorded is the pass mark (50% or 40%) for that unit.

How to pass project

Get mark of at least 50%.

If you don't pass project

If project mark 40-50%:

may be allowed to resubmit project.

Otherwise:

fail MSc; might get PG Diploma or PG Certificate.

2005-6:

3 people (of 43) failed project and resubmitted.

MSc with Distinction/Merit

If you pass all 180CP your “class” of MSc depends on average mark for taught part (T) and project (P):

<u>T</u>	<u>P</u>	
50	50	MSc
60	60	MSc with Merit
70	70	MSc with Distinction

Illness, etc.

If you fail a taught unit because of illness:

“First attempt” resit:

- Done in following year, *but*
- Mark is based on whole unit, not only failed part.
- Mark is not limited to pass mark.

If you pass a taught unit but get low mark because of illness: hard luck!

Need independent documentary evidence,
checked by *special circumstances committee*.

Marking process

