

**Mathematical, Physical, and Life Sciences Division**  
**PG Cert, PG Dip, and MSc in Software Engineering**  
**PG Cert, PG Dip, and MSc in Software and Systems Security**

**Report of the examiners 2013–2014**

Covers the examiners' meetings and results released in December 2013 (assessing work from MT 2013 courses), April 2014 (HT 2014 courses), June 2014 (assessing available assignments only) and October 2014 (TT 2014 courses).

## **Part I**

### **A. Statistics**

#### **(1) Numbers and percentages in each class/category**

##### **(a) Classified examinations**

There were no classified examinations.

##### **(b) Unclassified examinations**

#### **PG Cert in Software Engineering**

Category	Number				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	3	1	0	1	2
<b>Pass</b>	1	4	4	1	3
<b>Fail</b>	0	1	2	0	0

#### **PG Cert in Software and Systems Security**

Category	Number				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	1	1	0	1	0
<b>Pass</b>	2	2	0	0	0
<b>Fail</b>	0	0	0	0	0

#### **PG Dip in Software Engineering**

Category	Number				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	0	2	0	0	3
<b>Pass</b>	3	1	1	5	0
<b>Fail</b>	0	0	0	1	0

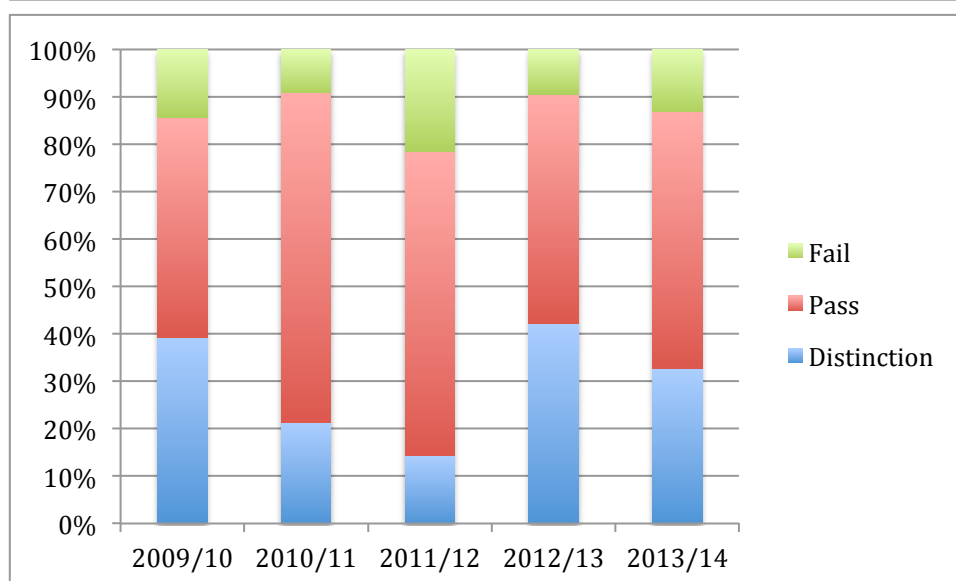
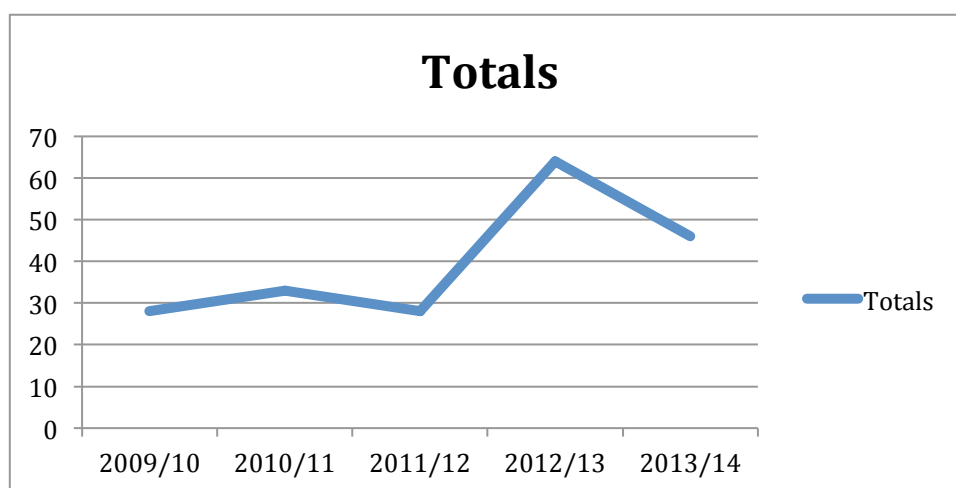
#### **PG Dip in Software and Systems Security**

Category	Number				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	0	0	0	0	0
<b>Pass</b>	1	0	0	1	1
<b>Fail</b>	0	0	0	0	0

## MSc in Software Engineering

Category	Number				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	11	7	4	27	15
<b>Pass</b>	13	23	18	31	25
<b>Fail</b>	4	3	6	6	6
<b>Totals</b>	28	33	28	64	46

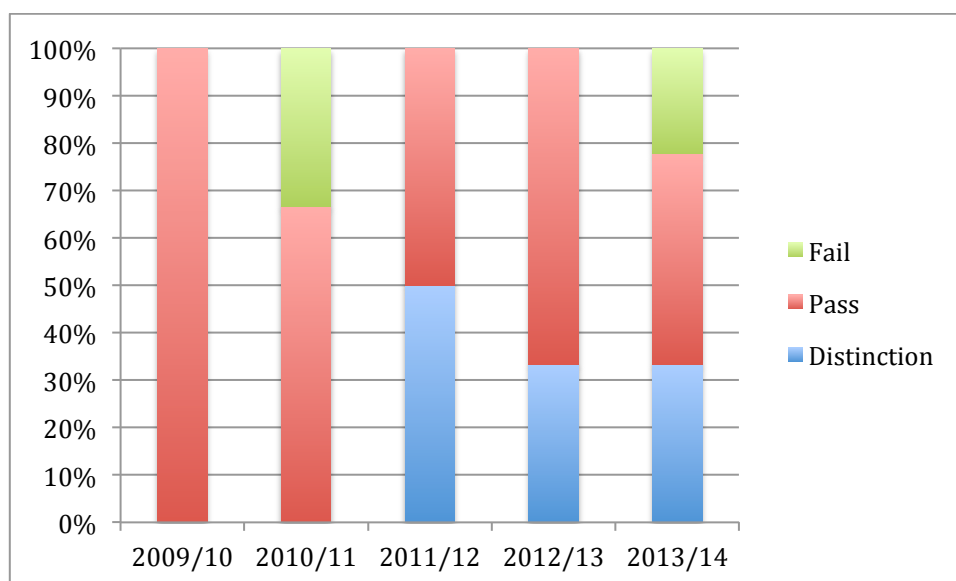
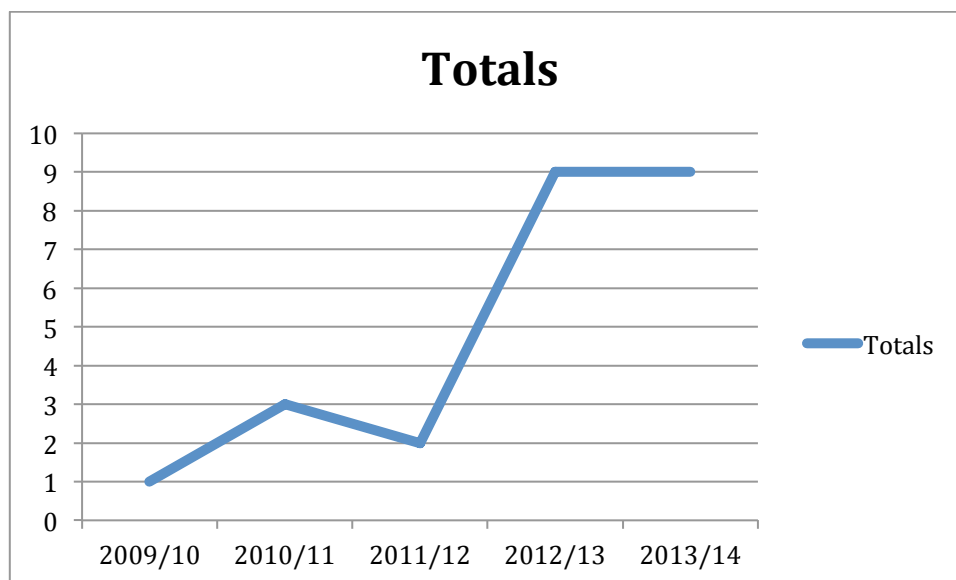
Category	Percentage				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	39.3	21.2	14.3	42.2	32.6
<b>Pass</b>	46.4	69.7	64.3	48.4	54.4
<b>Fail</b>	14.3	9.1	21.4	9.4	13



## MSc in Software and Systems Security

Category	Number				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	0	0	1	3	3
<b>Pass</b>	1	2	1	6	4
<b>Fail</b>	0	1	0	0	2
<b>Totals</b>	1	3	2	9	9

Category	Percentage				
	2009/10	2010/11	2011/12	2012/13	2013/14
<b>Distinction</b>	0.0	0.0	50.0	33.3	33.3
<b>Pass</b>	100.0	66.7	50.0	66.7	44.4
<b>Fail</b>	0.0	33.3	0.0	0.0	22.3



## (2) If vivas are used:

There were no vivas used.

## (3) Marking of scripts

All assignments (664) are double marked by the assessor for the course in question (who may also be an examiner) and a second assessor (usually the course Teaching Assistant), and are then moderated by an examiner (who cannot examine a course they are assessing). Where the resulting marks differ significantly, the examiner will invite the assessors to reconcile their marks. Contentious cases are additionally reviewed by the external examiners.

All dissertations (55) are independently marked by an assessor and an examiner. Where the resulting marks differ significantly, the examiner and assessor are invited to reconcile their marks prior to the Examiners' meeting (this happened in nineteen cases). Contentious cases are additionally reviewed by the external examiners.

## B. New examining methods and procedures

This academic year, we introduced double marking for all assignments as required by the Education Committee. While we encountered inevitable teething troubles with the new process and software support, this has largely been successful. While the software supports anonymous marking, we have not yet changed the student assignment submission process to fully ensure submissions are anonymous, although it is our aim to do so.

In addition, we have modified our process for releasing the results of assignments in order to comply with the need for the examiners' to approve assignment results before they are communicated to the students. All assignment results are now held until the examiners have met and approved them.

Given that the interval between Hilary and Trinity examiners' meetings is approximately six months long, and in order to minimise the impact on students from this new policy, we are now scheduling a fourth examiners' meeting in late June with the sole purpose of reviewing assignment results and approving their release.

## C. Please list any changes in examining methods, procedures and conventions which the examiners would wish the faculty/department and the divisional board to consider.

**Routine use of plagiarism detection software** The routine use of plagiarism detection software in the assessment of assignments and dissertations would be a useful aid in determining more systematically whether students are engaging in poor academic practice. During this academic year, a number of cases (in both dissertations and assignments) were raised as suspected plagiarism. These were manually uploaded to *turnitin* as a means of providing additional evidence in support of a referral to the proctors. It would be preferable for this manual process to happen automatically and systematically across all submissions, and for the report to be made available to the assessors.

## D. Please describe how candidates are made aware of the examination conventions to be followed by the examiners.

The Programme Handbook is presented through the Software Engineering website, and incorporates a set of examination conventions.

<http://www.softeng.ox.ac.uk/handbook/index.html>

The website is periodically drawn to the attention of all students.

## Part II

### A. General comments on the examination

The form of the Software Engineering Programme means that this examination is unlike most others in MPLS. Students attend one-week modular courses at their own choice, spread over several years. After each course they are given a take-home assignment, for which they submit a script six weeks later. Each script is marked by two assessors—almost invariably the course lecturer and teaching assistant—and moderated by an examiner. The marking process entails producing an extensive (1–3 pages) report for the student, with formative assessment as well as a final summative grade on the University's standard scale. Students accumulate these grades through the years of their study, and these are normally averaged according to a process in the Examination Conventions to give an overall result. This is combined with a dissertation mark to give an overall fail/pass/distinction result.

**Marking of dissertations** Each dissertation is marked independently by an assessor and an examiner, who each supply a written report and a proposed mark. Where the examiner and assessor propose marks with a difference of 10 or less, and not crossing a fail/pass/distinction boundary, the mean of the two marks is used—with discussion between the two to agree that this is appropriate. In the other cases, an attempt is made to resolve the mark prior to the Examiners' meeting. Any remaining contentious cases are additionally reviewed by the external examiner.

**Examiners' meetings** The examiners' main meetings occur three times each year, coinciding with each academic term, with an additional meeting being held in June to approve the release of assignment results. Dissertations are considered at each of the three examiners' main meetings. These meetings are scheduled during or shortly before 0<sup>th</sup> week of the following term. A submission deadline falls four weeks before the Examiners' meeting. For those students who have reached the end of their period of study, this is a hard deadline. Those wishing to complete their studies sooner can submit in time for an earlier deadline. Because the examiners meet to consider student results four times in the year, the examiners keep detailed minutes of their meetings, in addition to preparing this report.

**Prizes** The examiners nominated two dissertations for the Richard Bird prize.

**Plagiarism** There were five cases of suspected plagiarism (two dissertations and three assignments), which was reported to the proctors. These have all been resolved as unintentional plagiarism.

### B. Equality and diversity issues and breakdown of the results by gender

**Trends** It may be noted that (a) following a sharp rise in 2012/13, we have seen a decline in the number of students being examined, (b) the proportion of students being awarded a distinction has reduced from the significant increase seen in 2012/13, and (c) the numbers of students being examined for a degree in Software and Systems Security is stable.

The decline in the total number of students being examined (55, down from 73 in the previous year) is surprising, given that the Programme has been admitting between 60 and 80 students per year.

The decline in the number of distinctions is expected as the oldest examination conventions (which make it easier to be awarded a distinction) apply to fewer students (only to those whose registration started before Hilary term 2010).

Given the increasing number of students registering for the MSc in Software and Systems Security, we can anticipate that we will be examining greater numbers of students over the next few years.

**Gender differences** The regrettably low number of female candidates means that a breakdown of results by gender would yield no statistically-significant data.

### C. Detailed numbers on candidates' performance in each part of the examination

Presented as an annex.

### D. Comments on papers and individual questions

Through detailed personal feedback, students receive extensive comments on their assignments and individual questions. Where appropriate, the assessor includes information for the whole class on what might have been found in a model answer.

### E. Comments on the performance of identifiable individuals and other material which would usually be treated as reserved business

None.

### F. Names of members of the board of examiners

Dr Ivan Flechais (chair, prepared this report)  
Prof Jeremy Gibbons (Programme Director, ex officio)  
Prof Ralf Hinze

Dr Ivan Martinovic  
Dr Niki Trigoni  
Dr Alastair Beresfor (external)  
Dr Juliana Küster Filipe Bowles (external)

## Annex

Course	Date	Mean	Registered	Submitted	90-100	80-89	70-79	60-69	55-59	50-54	40-49	30-39	20-29	20-
RIS	2nd September 2013	59.55	12	11	3	0	0	4	0	0	3	0	0	1
SEM	2nd September 2013	62.45	15	11	0	1	3	0	3	4	0	0	0	0
OOD	9th September 2013	62.1	10	10	0	1	2	4	1	0	2	0	0	0
PMO	9th September 2013	71.75	15	12	2	1	3	4	0	2	0	0	0	0
AGM	16th September 2013	61.12	18	17	0	1	5	4	2	3	1	1	0	0
MRQ	16th September 2013	66.17	12	12	0	2	2	5	2	1	0	0	0	0
DAT	23rd September 2013	70.79	15	14	1	3	3	4	2	1	0	0	0	0
CDS	30th September 2013	69	9	5	0	1	2	1	1	0	0	0	0	0
DES	30th September 2013	66.36	13	11	1	0	3	5	1	1	0	0	0	0
Projects	7th October 2013		17	0	0	0	0	0	0	0	0	0	0	0
FOR	14th October 2013	70.33	12	9	1	2	2	2	0	2	0	0	0	0
STE	14th October 2013	62.67	8	6	0	0	2	2	1	0	1	0	0	0
FPR	21st October 2013	68.5	23	14	1	3	1	6	0	2	1	0	0	0
SPR	21st October 2013	65.79	18	14	0	4	3	3	1	1	2	0	0	0
CPR	28th October 2013	47.13	11	8	0	0	0	3	2	0	1	1	0	1
XML	28th October 2013	64.1	15	10	0	1	2	4	1	1	0	1	0	0
DPA	4th November 2013	65.44	9	9	0	0	2	7	0	0	0	0	0	0
PAS	4th November 2013	66	9	8	0	0	4	1	2	1	0	0	0	0
SDM	11th November 2013	62	11	10	0	0	1	5	3	1	0	0	0	0
TCI	11th November 2013	61.2	11	10	0	1	2	2	3	0	2	0	0	0
CLS	18th November 2013	63.09	12	11	0	1	2	4	3	0	0	1	0	0
OOP	18th November 2013	59.76	19	17	0	1	3	4	4	3	2	0	0	0
REN	25th November 2013	63.5	18	12	0	0	5	1	4	2	0	0	0	0
NES	2nd December 2013	68.4	18	15	0	0	7	8	0	0	0	0	0	0
SOA	2nd December 2013	64.67	22	15	0	2	2	8	2	0	0	1	0	0
Projects	6th January 2014		22	0	0	0	0	0	0	0	0	0	0	0
APE	13th January 2014	66.23	17	13	0	1	5	4	2	1	0	0	0	0
SEM	13th January 2014	64.54	18	13	2	1	1	4	1	3	0	1	0	0
SPR	20th January 2014	57.69	22	16	0	0	4	3	3	3	2	1	0	0
CPR	27th January 2014	70.83	14	12	0	3	4	3	2	0	0	0	0	0
IDE	3rd February 2014	65.19	16	16	1	4	0	4	4	1	2	0	0	0
STE	10th February 2014	64.58	16	12	0	3	0	5	0	4	0	0	0	0
SIM	10th February 2014	66.4	10	10	0	1	3	4	1	1	0	0	0	0
OOR	14th February 2014	53	7	4	0	0	1	1	0	0	1	1	0	0
FPR	17th February 2014	60.8	11	10	0	0	2	4	3	0	0	0	1	0
SWN	17th February 2014	67.27	16	15	0	1	4	9	0	1	0	0	0	0
DES	24th February 2014	65.6	13	10	0	2	3	2	1	0	2	0	0	0
SDM	24th February 2014	58.15	13	13	0	0	2	5	1	3	0	2	0	0
OOP	3rd March 2014	70	19	15	1	2	4	6	0	1	1	0	0	0
MCH	17th March 2014	60.29	11	7	0	1	1	2	1	1	0	1	0	0
SPL	17th March 2014	67.13	9	8	1	1	2	0	2	2	0	0	0	0
CLS	24th March 2014	59.29	18	14	0	0	3	4	1	4	1	1	0	0
Projects	31st March 2014		19	0	0	0	0	0	0	0	0	0	0	0
FOR	7th April 2014	70.38	15	13	0	2	5	6	0	0	0	0	0	0
SCS	7th April 2014	65.1	14	10	0	1	2	3	3	1	0	0	0	0
OOD	28th April 2014	67.93	18	15	0	0	8	5	1	0	0	1	0	0
PAS	12th May 2014	68.09	11	11	0	2	3	4	1	0	1	0	0	0
PMO	12th May 2014	63.63	11	8	0	1	1	3	2	0	1	0	0	0
SPR	19th May 2014	59.62	17	13	0	2	1	5	1	1	3	0	0	0
SEM	19th May 2014	67.07	19	14	1	3	2	4	0	1	3	0	0	0
DPA	2nd June 2014	55.21	18	14	0	0	3	4	2	1	1	2	0	1

SDM	2nd June 2014	63.78	10	9	0	0	2	5	1	0	1	0	0	0
AGM	9th June 2014	60	13	10	0	0	3	4	1	0	1	1	0	0
MSS	9th June 2014	68.5	18	14	1	4	1	6	1	0	1	0	0	0
XML	16th June 2014	65.5	16	10	1	0	3	2	3	0	0	1	0	0
EAR	23rd June 2014	66.5	17	14	0	3	3	4	1	1	2	0	0	0
PRO	23rd June 2014	65.25	15	12	0	2	1	5	3	1	0	0	0	0
CDS	30th June 2014	65.67	13	9	0	0	4	3	1	1	0	0	0	0
Projects	30th June 2014		23	0	0	0	0	0	0	0	0	0	0	0
APE	7th July 2014	65.54	15	13	0	1	2	6	3	1	0	0	0	0
SPR	7th July 2014	71.63	15	8	0	2	5	1	0	0	0	0	0	0
MOB	14th July 2014	62	10	8	0	2	1	1	0	2	2	0	0	0