

Advanced Research Readings, 2013/14

Guidelines for Staff and Students

The ARR Strands

Each student will take only one ARR strand depending on his or her area of specialism. Based on the MRes and MSci students specialism areas in 2013/2014, we will run two strands in ARR this semester: (i) Information Security and (ii) Systems.

The MRes (CS) and the MSci (CS) students will have to choose between one of the above three strands and confirm their choice on or before Friday, 24th January 2014, 4pm, by sending an email to the ARR course coordinator.

Academic staff

There is a co-ordinator for each ARR strand. However, it is expected that the strand will be taken by a group of academics in the corresponding research area who will be recruited by the strand co-ordinator. The overall co-ordination of all ARR strands will be done by Iadh Ounis.

Course structure

The discussion sessions are intended to run roughly on the same lines as Research Readings in Computing Science in the first semester; i.e. based around the discussion of research papers given in advance. Because of the reduced time and credit weight, one or two papers on average a week should be sufficient: the students should be given the papers at least one week in advance. The first session could be used to review the three or four relevant papers covered in the Research Readings course in Semester 1, or to introduce the topics that will be covered in the relevant strand.

The small numbers in these classes ought to assist in engaging students in whole-group discussion.

Students will be assessed by

- a 4-page outline research proposal (due during week 25 of Semester 2) [20%]
- a presentation, based upon the research proposal, to the relevant research group and other interested people from the School (to be held during weeks 23-27 of Semester 2) [10%]
- examination (open book, one essay question) [70%]

Unlike the Research Readings course, no coursework marks are given for weekly summaries or in-depth reviews. However, students may wish to submit unassessed work during the semester for formative feedback.

Moderation

Even with the best will in the world, it may be difficult to ensure that the standards applied over the different ARR strands are equivalent. As students should not be disadvantaged by their choice of the ARR strand, some post-examination moderation of marks will be performed – as mutually agreed at an internal examiners' meeting. All assessment items (including examination questions) will be double-marked by two different people in the research team: with so few students, this ought to be possible.

Timetabling and locations

With small groups, it should be easy to timetable weekly sessions according to the students who have signed up and many of these sessions could take place in personal offices, or in meeting rooms in the school. The teaching office has now timetabled all above ARR strands. However, depending on the students strand choice, it may be possible to change these after a couple of weeks. Strand co-ordinators will be given a list of the students enrolled in their strand, and can negotiate an appropriate time; Teresa can assist with any required room bookings.

The Proposal (20%)

The student may choose any topic related to the research area, as approved by the strand co-ordinator. No two students may choose the same topic. It is each student's responsibility to suggest a topic to the strand co-ordinator by the deadline specified in Moodle.

The proposal is a 4-page outline Case for Support (CfS), as defined by Research Councils UK.

Outline Case for Support – no more than four pages of A4, addressing the key assessment criteria and giving an indication of the resources being requested. The minimum acceptable font is size 11, and the minimum margin in all directions is 2cm. It should include:

Background

- Introduce the topic of research and explain its academic and industrial context.
- Demonstrate a knowledge and understanding of past and current work in the subject area in the UK and abroad. In particular, it **cannot** be based on only one research paper.

National Importance

- Describe the extent to which, over the long term, for example 10-50 years, the research proposed:
 - contributes to, or helps maintain the health of other research disciplines, contributes to addressing key UK societal challenges, contributes to current or future UK economic success and/or enables future development of key emerging industry(s)
 - meets national strategic needs by establishing or maintaining a unique world leading research activity (including areas of niche capability)
 - fits with and complements other UK research already funded in the area or related areas, including the relationship to the EPSRC portfolio and our stated strategy set out in "[Our Portfolio](#)."
- The extent to which applicants are able to address each bullet point will depend on the nature of the research proposed. Applicants should indicate how their research relates to EPSRC's [research areas and strategies](#) (many projects will be relevant to more than 1 EPSRC research area).
- The definition of National Importance and further details can be found at [preparing new proposals to include National Importance](#).

Academic Impact

- Describe how the research will benefit other researchers in the field and in related disciplines, both within the UK and elsewhere. What will be done to ensure that they can benefit?

Research Hypothesis and Objectives

- Set out the research idea or hypothesis.
- Explain why the proposed project is of sufficient timeliness and novelty to warrant consideration for funding.
- Identify the overall aims of the project and the individual measurable objectives against which you would wish the outcome of the work to be assessed.

Programme and Methodology

- Detail the methodology to be used in pursuit of the research and justify this choice.
- Describe the programme of work, indicating the research to be undertaken and the milestones that can be used to measure its progress. The detail should be sufficient to indicate the programme of work for each member of the research team. Explain how the project will be managed.

Note: Lists of references and illustrations are included in the four page limit.

A band (e.g. A2, B3, C1) should be awarded. The following assessment table is proposed:

	Background	National Importance	Academic Impact	Research Hypothesis & Objectives	Programme & Methodology
A	Complete – no important themes or points missing	Excellent discussion of national importance	Undoubtable academic impact	Excellent hypothesis and objectives – completely linked to stated academic impact	Excellent research programme and methodology – guaranteed to succeed
B	Almost all the important themes or points identified	Very good discussion of national importance, most important aspects identified	Mostly believable academic impact	Very good hypothesis and objectives – mostly linked to stated academic impact	Very good research programme and methodology – highly likely to succeed
C	Some important themes or points identified	Good discussion of national importance, some important aspects identified	Partially believable academic impact	Good hypothesis and objectives – partially linked to stated academic impact	Good programme and methodology – some flaws, likely to deliver usable results in some areas
D	Few important themes or points identified	Fair discussion of national importance, few important aspects identified	One or two claims of academic impact follow from the discussion	Fair hypothesis and objectives – minor linkage to stated academic impact	Fair programme, may deliver usable results in a few areas
E	Incomplete, or only trivial points identified	Poor discussion of national importance, only trivial aspects identified	Claims do not follow from the discussion	Poor hypothesis and objectives – minimal linkage to stated academic impact	Poor programme, unlikely to deliver any usable results
F	Seriously incomplete	Very poor discussion, national importance not established	Impossible to understand	Very poor hypothesis and objectives – no linkage to stated academic impact	Very poor programme, no clear link to hypothesis and objectives
G	No relevant content	Impossible to understand	Impossible to understand	Impossible to understand	Impossible to understand
N	No submission	No submission	No submission	No submission	No submission

The Presentation (10%)

The expected length of the presentation is 15 minutes, with 5 minutes for questions (allowing for three students to be scheduled within an hour).

Each student's presentation is based upon the corresponding proposal. Students should be given the contact details of the seminar organiser for the relevant research group, and instructed to arrange their own presentation date during weeks 23-27 of Semester 2.

The presentation should convince the audience that the proposal merits funding. Thus, it will need to cover Background, National Importance, Academic Impact, Research Hypothesis and Objectives, and Programme and Methodology from the proposal.

A band (e.g. A2, B3, C1) should be awarded. The following assessment table is proposed:

	Content	Critical Analysis	Quality of verbal presentation	Response to questions	Structure and quality of visual presentation
A	Complete – no important themes or points missing	Insightful, addressing relevant issues or points of view	Very fluent, always easy to understand	Very good response to questions	Very well organised, very easy to follow and understand
B	Almost all the important themes or points identified	Reasonable attempt at critical analysis, but omitting some important points	Fluent, mostly easy to understand	Good response to questions	Well organised, easy to follow and understand
C	Some important themes or points identified	Some relevant issues analysed	Lacking fluency, sometimes difficult to understand	Adequate response to questions	Moderately well organised, sometimes difficult to follow
D	Few important themes or points identified	No critical analysis	Lacking fluency, frequently difficult to understand	Inadequate response to questions	Inadequately organised, frequently difficult to follow
E	Incomplete, or only trivial points identified	No critical analysis	Lacking fluency, very difficult to understand	Questions not answered	No obvious structure, very difficult to understand
F	Seriously incomplete	No critical analysis	Impossible to understand	Questions not answered	Disorganised, very difficult to understand
G	No relevant content	No critical analysis	Impossible to understand	Questions not answered	Impossible to understand
N	No attendance	No attendance	No attendance	No attendance	No attendance

The Examination (70%)

The examination will be 3hrs, and open book: students will be given an unmarked copy of all the papers that they studied during the semester when they enter the examination. Students will answer one essay question, which will typically ask them to integrate the research material that they have covered in the semester; for example, identifying the most important issues and themes, comparing and discussing different points of view, and including a critical analysis of the field. Like Research Readings, students will sit the exam on a lab computer using a special account, to produce a typed essay.

A band (e.g. A2, B3, C1) should be awarded. The following assessment table is proposed:

	Content	Critical Analysis	Quality of writing
A	Complete – no important themes missing	Insightful, addressing several different relevant issues or points of view, including valid references to other research material	Highly literate, very well organised.
B	Almost all the important themes identified	Reasonable attempt at critical analysis, but omitting some important points; no reference to additional material	Well organised, literate.
C	Some important themes identified	Some relevant issues analysed	Moderately well organised, sometimes ungrammatical
D	Few important themes identified	No critical analysis	Inadequately organised, frequently ungrammatical
E	Incomplete, or only trivial points identified	No critical analysis	Disorganised, frequently ungrammatical.
F	Seriously incomplete	No critical analysis	No obvious structure, very difficult to understand
G	No relevant content	No critical analysis	Impossible to understand
N	No submission	No submission	No submission