

**UNIVERSITY OF WOLVERHAMPTON**

**Faculty of Science and Engineering**

**7CC009**

**Research Methods for Computing**

**2014/15**

**Assessment Guide**

**COMPUTING, MATH & INFORMATICS**

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| **Module** | **7CC009 RESEARCH METHODS FOR COMPUTING** |
| **Module Leader**  **Module Tutor** | DR. GEORGIOS PALTOGLOU  PROF. QASIM MEHDI |
| **Semester** | 1 |
| **Year** | 2014/15 |
| ***Assessment*** |  |
| **Due Date** | Task 1 – 13/11/2014  Tasks 2 & 3 – 26/1/2015  Task 4 (written exam) – 30/1/2015 |
| **Hand-in – what?** | See below |
| **Hand-in- where?** | Electronic copy through WOLF |
| **Method of retrieval** | Using the feedback you have received from your tutor make changes to your work and resubmit. |
| **Feedback** | During tutorials |

**Learning outcomes:**

**LO1:** Students will be able to: *Select* and *critically analyse* *appropriate* sources of information and data

**LO2:** Students will be able to: *Demonstrate an awareness of the legal, social, ethical and professional issues involved in the exploitation of computer technology.*

**LO3:** Students will be able to: *Develop advanced analytical competence at PG level of study*

**LO4:** Students will be able to*: Evidence their own personal knowledge through the development and presentation of a coherent research and experimentation proposal that will address open ended questions associated with new and advancing theory/practice.*

**The assessment for 7ET022 will consist of 4 pieces of work:**

* *ONE* group task/presentation and peer-review assessment (task 1) and
* *THREE* individual tasks (tasks 2, 3)
* *ONE* individualmultiple-questions exam (task 4)

The above accounts for **100% of the marks** for the module. There are different submission deadlines for specific tasks.

**Note**: Work submitted after the deadline will receive a maximum grade of 50%. If you fail to submit any of the assessments, your final grade will be capped to 50%.

# Task 1: Group work - 20% of the portfolio grade (LO4 & LO2)

For this assessment you will be working in a group to prepare a draft *research proposal*. The proposal should take the form of a PowerPoint presentation with accompanying notes pages where you put the additional, requested details.

You are required as a group to present your slides to the class in the class session on **14/11/2014**. ALL group members MUST take part in the presentation and should present an equal number of slides. A copy of your presentation must be submitted through the WOLF Assessment gateway for this module by midnight (WOLF time) **of the previous day (13/11/2014)**.

Group size and group members will be decided by your tutor, but you are free to provide suggestions. Typical groups should have three members. You are **strongly advised** to form teams with members that have chosen different topics than you (see below). **ALL** students must take part in preparing the presentation. A peer review slide will be completed by each group that reviews the participation of group members. If you do not take part in all group activities and you receive a negative peer feedback your individual grade *will* be affected. At the end of the presentation you should be prepared to answer questions from staff and fellow students.

Students will be given *marking* *grids* and will be requested to mark *other groups’ presentation* and work during the session. The mark and comments that you provide **will be part of your assessment;** appropriate, relevant and objective comments will result in higher marks. Your comments will NOT be seen by other students (only by the lecturers) and will NOT affect their marks.

You need to choose one of the following topics (your lecturers can help you in choosing an appropriate subtopic in any of those areas):

* Machine Learning
* Data Mining
* Sentiment Analysis
* Natural Language Processing
* Big Data
* Information Retrieval

## Your presentation should include the following slides:

* Working title (*1 slide*)

Group

Work

* + A single sentence that very briefly summarises the topic.
* Introduction/Aim of research topic (*1 slide*)
  + A brief description of the background information relating to the topic and the issues you aim to investigate.
* Main Research question and 1 sub-question per group member (*1 slide*)
  + Specific research question that you are going to investigate (common for group)
  + Sub-questions that help you answer your specific research question (1 per member)
* Annotated bibliography (*1 slide per group member*)

Indiv.

Work

* + - Each group member needs to find **3 journal/conference articles** that are relevant to the research sub-question they are investigating.
    - In your slide:
      * Summarise the annotated bibliography from each article
        + Be concise in your summary. Use bullet points, not long sentences. For example, don’t use a font less than 24.
      * Put the full annotated bibliography for all the articles in the notes.
* Literature review 500 -600 words in length (*1 slide per group member*)
  + Use only the journal/conference articles from the annotated bibliography,
  + Summarise your literature review on the slides (see advice above).
  + Put the entire literature review in the notes section.
    - Advice: Make sure you understand the difference between annotated bibliography and literature review!
* Research methodology (min. *2 slides*)

Group

Work

* + Detail step by step exactly how you will do the research. For each sub-question you need to say:
    - What **data** will you collect (list sources)
    - **How** you will collect data (interview, questionnaire, online, datasets etc.)
    - How you intend to **analyse** the data you collect (Quantitative / Qualitative, software to use etc.)
* Ethical, professional or commercial considerations that need to be addressed (*1 slide*)
* Deliverable (*1 slide*)
  + A report/artefact/conference paper
* Harvard Reference list (*1-2 slides*)
  + Harvard reference list
* Peer review slide (*1 slide*) that will **not** be shown during the presentation.
  + Use the template on WOLF

# Task 2: Individual work - 40% of the portfolio grade (LO1 & LO3)

Use the 3 journal articles from your assessment 1, **research and add at least 5 more** (recommended number is 7, for a total of 10) and write a *1,500 word literature review*. The added articles must be relevant to your Task 1 research question and sub-question.

Assessment 2 should be submitted as a Word document through the WOLF Assessment gateway for this module by midnight (WOLF time) **26/1/2015**.

# Task 3: Individual work 20% of the portfolio grade (LO2)

Write a *1,000 word reflective essay* that covers what you have learnt on this module about individual research methods and ethical research issues.

In the essay you should write about:

* What research skills you have learnt on the module
* How your group worked together
* What you have learnt about ethical and professional research considerations

Assessment 3 should be submitted as a Word document through the WOLF Assessment gateway for this module by midnight (WOLF time) **26/1/2015**, along with Assessment 2.

# Task 4: Written exam (individual) – 20% of the portfolio grade (LO2)

The assessment will take the form of an online pc-based, closed-book multiple questions exam. It will cover legal, social, ethical and professional issues involved in the exploitation of computer technology. Compulsory reading material will be given in class.

**Attention is drawn to the University definition and procedure for dealing with cheating which can be found at** <http://www.wlv.ac.uk/PDF/aca_acad_misc.pdf>

and the student union academic advice pages and video which provide advice on academic misconduct issues at http://www.wolvesunion.org/advice/academic/misconduct/

**Note, no extensions will be granted for this coursework. If you fall into difficulties because of unforeseen problems you may be able to ask for mitigation.**