COMPUTING WITH PLYMOUTH UNIVERSITY

PRCO304

Computing Project Guidelines

2016-2017

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1. Formalities

PRCO304 is a 40 credit final-stage spring semester module. This should normally equate to 400 hours of your time. All deadlines are noted in Section 2 below, and are also posted on the **Student Project Management System** (SPMS), details of which are available in the DLE's ProposalPID folder.

The module leader is Chris Johnson: c.johnson@plymouth.ac.uk

The PRCO304 module aims are:

- A. To enable the student to undertake an individual project on an approved topic of interest, that addresses a significant computing related problem relevant to the programme of study
- B. To provide an opportunity for the student to integrate many of the threads of their programme of study

The PRCO304 module learning outcomes are:

- 1. Demonstrate an investigative component to the project showing consolidation and development of knowledge and understanding relevant to their programme of study.
- 2. Produce an approved deliverable appropriate to the programme of study that addresses a significant computing related problem.
- 3. Manage the project effectively by demonstrating the application of project management skills.
- 4. Identify and take due consideration of the legal, social, ethical and professional issues that are appropriate to the project.
- 5. Communicate effectively all aspects of the project deliverables including the theoretical and methodological framework.

So this is a substantial individual piece of work based on a problem chosen by you. In this you have two roles: Project Manager and Project Personnel. Keep these roles separate in your thinking. Project Management is about planning the project and monitoring its execution; the role of the Project Personnel is to carry out the underlying work. Your supervisor's role is more akin to that of a Project Sponsor, providing guidance and approving deliverables.

Relevance to the programme of study

This means that your project topic should (to some extent) align with your degree topic (e.g., networking, security), and that you are building upon knowledge and skills acquired

during your earlier studies. That said, you may wish to use the project to explicitly develop new skills, and this is perfectly fine.

2. Submission requirements and timetable

The module officially runs in Semester 2, starting Monday 30 January, 2017.

Project proposals (see Section 3.1 below) can be submitted at any time. However please note that supervisor allocation will commence 9 November, and supervisors are only allocated once we receive an acceptable proposal: we therefore advise that you submit a proposal (shortly) before this date.

Obviously, also, your proposal submission does need to be made in sufficient time for the proposal to be approved and for you to then consult with your supervisor to discuss your PID. This needs to happen in time for the PID submission.

Following the approval of your proposal you'll need to submit your PID (via the SPMS) by 5pm, Thursday 2 February.

We strongly advise that you submit your PID before Xmas.

Your supervisor will either *Approve* your PID submission or *Reject* it (in which case you need to ascertain why, and resubmit)¹.

During the project itself you will submit a Highlight Report each week between the second week of the project (6 February) and the Easter break.

The **final deliverables** which will be used by your supervisor and 2nd marker to assess your project are:

- Final report (two hard copies + one disk): to be submitted by 10am, Monday 22 May,
 2017 via the Faculty Office, ground floor Smeaton. Your hard copy submission does not need to include your appendices.
- An electronic (pdf) copy of your final report via the SPMS: by 10am, Monday 22 May.
 Please upload a single pdf file² rather than a zip of multiple files. This electronic submission should include the appendices.

² If the document really is too big to present as a single pdf file, then we'd like to see a single file for the main body and a single file containing all the appendices.

¹ We shall endeavour to process your submissions within 5 working days although in some cases delays may be unavoidable. If your submission is not processed in a reasonable timeframe, please contact your supervisor. If your submission is rejected we'd like to see resubmission within 10 working days.

- Demonstration ... normally to be conducted between Tuesday 23 May and Friday 2 June, 2017. In exceptional circumstances, demonstrations may be conducted up to Friday 9 June: this is *absolutely* the last date that we will allow demonstrations to take place.³
- Final products (most usually the software application)

Details of the above are to be found below. We recommend also that you submit (via the SPMS) a draft copy of your final report for perusal and feedback by your supervisor – by 5 May.

In addition to the formal submissions detailed above, you should provide other deliverables (e.g., requirements document, design document, test plan, ...) for scrutiny by your supervisor as they are produced: You should upload such documents to the SPMS via the "Miscellaneous deliverables" option on the SPMS.

3. Getting started: The Proposal and the PID

3.1 Project Proposal

The first thing to do is to identify an idea for your project, and to write this down in the form of a proposal. Guidance on developing your idea and writing your proposal are to be found in the DLE's ProposalPID folder.

Proposals will be considered from 9 November (and not before) – so we advise that you aim to submit shortly before then. Details of how to submit are in the ProposalPID folder.

When developing your proposal, you should ensure that all necessary resources are/will be available including hardware and software plus 3rd party/client support if necessary. Please use legal copies of software. (The only exception to this would be properly controlled and quarantined programs for Information Security projects as authorised by the Head of School.)

Your proposal will be used to allocate a project supervisor, from whom you should promptly seek feedback on your proposal: you should then start to work on your Project Initiation Document (PID).

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³ It is your responsibility to organise the demonstration: we expect this to be done by 28 April.

3.2 Project Initiation Document (PID)

The PID is a standard way of defining a project⁴: in this context, it forces you to think through the details of your project more carefully, and allows us to make a clear decision as to whether we are able to approve your project⁵. Further details are to be found in the DLE's ProposalPID folder. Please discuss your draft PID with your supervisor prior to submission; once they are happy with it, please submit immediately (via the SPMS).

4. Highlight Reports and Project Supervision Meetings

We expect that:

- You will meet⁶ with your supervisor weekly between the start of the project (30 January) and the Easter break; before the start of the semester, you should set up a regular time slot for these meetings. We expect that meetings will take around 15 minutes on average, although generally speaking initial meetings will be longer than those closer to Easter.
- You will submit a Highlight Report (via the SPMS) each week between the second week of the project (6 February) and the Easter break. You should submit your Highlights the day before your supervision meeting.

We expect that a Highlight Report will be at most one side of A4 (frequently shorter), and will take you approximately 10-15 minutes to write and submit. A template for Highlight Reports is available in the DLE Guidelines folder. A Highlight Report should (briefly) cover the following:

- 1. Review of work undertaken (and comparison with work planned) since the last Highlight⁷, including identification of any products⁸. Identification of any issues of concern that have arisen since the last Highlight, and any previous issues that are still a concern.
- 2. In the case when a stage has completed since the last Highlight, include a brief review of whether the stage's objectives, deliverables and timescales were met (or not).
- 3. Brief notes from supervisory meeting(s) held since the last Highlight (*including meeting date(s)*).
- 4. Brief plan of work for the next week (derived from the current stage plan).

⁴ The process of project definition should be seen as an important part of a project – in real life your project won't get funded without such a definition

⁵ Your supervisor's approval of your PID is our formal approval of your project idea

⁶ From *March* it is acceptable for some of these meetings to be conducted over the telephone subject to the agreement of the supervisor, provided the project is up to date and provided that week's Highlight has been submitted.

⁷ Or in the case of the 1st Highlight – work undertaken to-date

⁸ E.g., requirements document, designs, ..., software components. Documents can be uploaded to the SPMS via the "Miscellaneous deliverables" option

As noted above, you should submit your weekly Highlight the day before your supervisory meeting – the meeting can then be used to review the contents of the Highlight – which your supervisor will either *Approve*⁹ (usually) or *Reject* via the SPMS. You should also discuss/review any recent products delivered (which should have been submitted via the Misc. Deliverables option on the SPMS).

We leave it to your discretion how you manage the project after the Easter break; however we suggest that you arrange at least two supervisory meetings in order to review the final product and report.

Further information on roles & responsibilities is to be found in Sections 9.2 and 9.3 below.

4.1 Missing a Highlight

If you are unable (for whatever reason) to submit *one* of your Highlights, then please don't worry about it¹⁰: inform your supervisor and when you are able, either upload the Highlight or upload a brief document (instead of the Highlight) noting the reasons for your inability (and then put the outstanding details into the next Highlight). Use your common sense.

If circumstances prevent you from submitting multiple Highlights, then an EC claim may be appropriate. Discuss with your supervisor.

4.2 Missing a supervisor meeting

If you are unable (for whatever reason) to attend *one* of your supervisor meetings, then please don't worry about it¹¹: inform your supervisor and carry on as appropriate.

If circumstances prevent you from attending multiple meetings, then an EC claim may be appropriate. Discuss with your supervisor.

4.3 If your supervisor becomes unavailable

In the case of a short absence, continue as best you can. In the case of a longer unplanned¹² absence, then you can consult with your second marker for supervisory assistance. (Second markers will be posted on the SPMS).

⁹ Please note that approval of a Highlight Report is approval of the report – not the work documented in the report. For example if you are ill all week and accomplish nothing, then provided you say so honestly in your report, it should be approved (and your supervisor will no doubt wish to make comments that you need to catch up).

 $^{^{10}}$ We would not normally demand that you submit an EC claim in the event of missing **one** Highlight

¹¹ We would not normally demand that you submit an EC claim in the event of missing *one* meeting

In all cases above, please consult Chris Johnson if there are unresolved problems.

5. Final Deliverables

5.1 Final report

Information and guidance on the final report will be posted in the DLE's FinalReportDemo folder.

Two hard copies of the report must be submitted to the Faculty Office (ground floor, Smeaton Building). The hard copy reports should be comb bound; they do <u>not</u> need to include your appendices. You should attach a disk/usb stick to *one* of the hard copy reports: this should contain an electronic copy of analysis and design elements plus source code.

A front cover template is available in the PRCO304 folder¹³: The front cover must be white with black type. Front and back covers must be laminated.

The report word limit is *strictly* **11 000 words**. Reports exceeding this word limit will have marks deducted. You should include a statement of your word count immediately after your table of contents (and marks will be deducted for omission). We suggest that your report should be no less than 8000 words.

Everything is included in your word count except the reference list, bibliography and the appendices.

You should also upload an electronic (pdf) copy of your (full) report (*including* appendices) to the SPMS. Please upload a single pdf file rather than a zip of multiple files¹⁴.

It is important that you "write up as you go along" by keeping detailed notes of what you did and why you did it. The products that you produce will be visible at the end of your project, but the process (which is also something you can gain credit for) won't be unless it is described in your report, and over a 3-month period it is easy (for you) to forget the specifics of what you did and why.

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¹² In the case of *planned* absence, your supervisor will inform you of alternative supervisory arrangements

 $^{^{13}}$ You do **not** need any further coursework front cover sheet beyond this one.

¹⁴ If the document really is too big to present as a single pdf file, then we'd like to see a single file for the main body and a single file containing all the appendices.

We strongly recommend that you submit (via the SPMS) a draft copy of your final report for perusal and feedback by your supervisor. Supervisors will not read your draft <u>in detail</u> – but experience has shown that it is still a very useful exercise. Do this in good time so that your supervisor has time to look at your report: by 5 May please.

Please note that supervisors will look at only <u>one</u> draft copy: they will <u>not</u> comment on multiple drafts.

5.2 The demonstration

- It is your responsibility to arrange the demonstration; we expect this to be done by 28th April.
- In the absence of a demonstration you'll receive a mark of ZERO for your project.
- The demonstration should take place in the timeframe specified in Section 2 above.

Full details of the demonstration will be posted in the DLE's FinalReportDemo folder.

5.3 Final products

The deliverables from your project will be described in your final report, presented at the demonstration, and included on the above-mentioned disk.

6. Project Assessment

6.1 Non-submission and late submission

In the absence of validated extenuating circumstances:

- Non-submission of the final report or failure to provide a demonstration will result in a mark of ZERO for the whole project. Late submission/provision will be dealt with in line with the University regulations.
- Non-submission or late submission of interim deliverables will be taken into account by your markers when they award marks.

6.2 Assessment criteria

Project Assessment Criteria will be posted in the DLE's Guidelines folder. Given that all projects are unique, markers are at liberty to interpret these criteria as appropriate (although they are required to justify their marks). You are welcome to discuss with your supervisor how the Assessment Criteria could apply to your project.

6.3 In the event of failure

If you don't pass first time, you *may* be referred during the summer or invited to repeat the project in the following academic year. Students who repeat the project will normally find that a further fee is payable.

If you are referred, you may choose to repeat the module. (You will receive a letter from the Faculty Office stating the options.) Please contact your supervisor as a matter of urgency to elicit from them guidance on what you would need to do to improve your project to a passing level; you should also use this information to decide whether it is feasible to achieve this in time for a refer submission. If in doubt, our guidance is to choose to repeat.

Unless you are informed to the contrary, you should assume that a refer attempt will have the same supervisor and second marker. You should assume that a further demonstration is required unless you are explicitly informed that it is not. If a further demonstration is required, it is your responsibility to organise this.

Refer and repeat attempts will be treated in accordance with the University regulations. Informally, a refer/repeat attempt, without validated extenuating circumstances, will have the mark capped at 40%.

6.4 Feedback

You will receive brief verbal feedback immediately after the demonstration. Your markers' comments will be visible to you via the SPMS.

6.5 Plagiarism

The project is to be an individual piece of work and the University regulations on academic dishonesty apply. You are expected to be aware of (and adhere to) University guidelines on referencing and plagiarism: this applies to all products (e.g., code, report¹⁵). Students are warned that we will subject student products to plagiarism detection devices.

¹⁵ Referencing and plagiarism in written reports is detailed in the essay writing guidelines in the FinalReportDemo folder

7. Withdrawing from the project

If you are considering withdrawing from (or deferring) the project for any reason, discuss this *straight away* with your supervisor and/or the module leader.

If you decide to go ahead with the withdrawal/deferral, you need to contact the Faculty Office. You need to do this promptly: If your withdrawal/deferral takes place after the University's "final date for withdrawal¹⁶", then you will be considered to have attempted the module (which may impact your eligibility for deferral and the mark that can be obtained within any possible repeat attempt).

If you defer the project, then the intention is to complete the project the following year as a part-time student (subject to passing your other modules in the current year). A further fee may apply; please check with the Faculty Office.

Students who do not complete the project may be eligible for an Ordinary (i.e., non-honours) degree – consult with your programme manager for further clarification.

Overseas Students on TIER 4 visas

Students on TIER 4 visas who *choose* to defer their project should note that the University will not sponsor an application for a visa extension under TIER 4. Such students would therefore need to either conduct their project whilst in their home country with remote supervisory support, or seek advice on other student visa routes that may be suitable to cover this period.

The situation differs for students who are *forced* to defer their projects (e.g., as a consequence of extenuating circumstances).

In all cases, please contact the International Student Advisory Service (ground floor Roland Levinsky Building) for further clarification.

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¹⁶ This year this is: 3 February, 2017

8. Accessibility and disability

Every effort is made to ensure accessibility for students with disabilities. If you have any accessibility requirements (including provision of materials in alternative formats), please discuss these with your supervisor and/or the module leader.

If you have a disability you should already be registered with the University's <u>Disability Assist Services</u> (DAS), in which case the module leader will receive a notification. Subject to authorisation, this information can be shared with the supervisor, although it would be better for you to raise the issues directly with the supervisor if you think they have a bearing on your project.

If appropriate, disability issues can be included as part of the project risk assessment.

If you are concerned that you may have a disability, please do seek assessment from DAS directly. DAS is available to decide upon support issues and can allocate resources where appropriate.

9. Miscellaneous

9.1 How much time should I spend on the project?

The norm is 10 hours effort per credit ... which equates to 400 hours. This amounts to 30 hours per week (during Semester 2) ... on average. With this in mind it really is important that you stay on track. You'll help yourself tremendously by getting your PID approved before Xmas so that you can make a prompt start to your project.

9.2 Your supervisor's responsibilities

Your supervisor will:

- Approve (or reject) your PID and Highlights
- Monitor your progress and provide guidance & suggestions
- Provide feedback in response to your formal submissions and other products that you produce/provide to your supervisor
- Assess your project (together with the second marker)

It is not the responsibility of the supervisor to provide technical assistance.

9.3 The student's responsibilities

• The project! Putting in the necessary (suggested) hours.

- Defining the project
- Solving practical problems
- Producing submissions & deliverables (on time)
- Arranging the demonstration
- Keeping a log of activities, decisions, etc. (Your final report needs to document the process as well as the products. Write up as you go along, else you'll have forgotten it all by the end.)
- Arranging supervisory meetings: We expect you to meet with your supervisor weekly between the start of the project (30 January) and the Easter break.
 - After Easter is at your discretion
 - The importance of maintaining proper contact with your supervisor during the project cannot be over-emphasised
- Contacting your supervisor (and/or module leader) promptly in the case of problems
- You have the responsibility to be proactive in the management of your project don't expect to be prompted.

9.4 In the event of problems ...

In the event of any problems which are outside your control and which may cause significant disruption to your project, you are advised to promptly submit an *Extenuating Circumstances* form to the Faculty Office in line with University regulations. (In particular you should note that time limits for the submission of such apply.) Make sure you also maintain appropriate contact with your supervisor and/or module leader who will advise as appropriate.

If you have a disability, then you should only need to submit an Extenuating Circumstances form if this causes disruption to your project; if in doubt discuss with your supervisor.

9.5 Research or experiments involving human participants

Research (e.g., system evaluations) involving human participants must comply with the University's Ethics policy. Further information is posted in the Ethics folder.

10. Further information

Further information may be found in:

- The University of Plymouth Student Handbook
- The University of Plymouth Regulations