Department of Computer Science

University of Reading

CS3IP16: Individual Project

Assessment Criteria (Marking Scheme) and Mark Classification

This document offers the details of the assessment criteria (marking scheme) and mark classification. The first section describes the marking schemes, which will be used for the final year projects marking. The marking scheme section has a marking scheme for each of the following: project report, final presentation and demonstration, and project management. The criteria in each scheme have its associated marking weights and marking levels of the expected qualities. For example, the project report marking scheme have 10 criteria, and each criterion has a 3, 4, or 5 levels of qualities. The second section describes the mark classification, and it should be read to understand the overall quality of evidence associated with a classification in broad terms.

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Marking Scheme (Assessment Criteria)

Project report (60%)

Criteria for project report assessment	Mark (100 %)
#1 Literature review: scientific awareness and the understanding of background knowledge (background knowledge, relevance of literature review of the state-of-the-art, and critical literature review summary, literature review presentation)	**20**
▪ Little or inappropriate	0 – 7
▪ Acceptable	8 – 10
▪ Satisfactory	11 – 13
▪ Excellent	14 - 17
▪ Outstanding	18 – 20
#2 Understanding of project aims and objectives (relevant to the problems/investigated questions)	**5**
▪ Poor or no mention of aims and objectives, or no understating of aims and objectives	0 – 2
▪ Appropriate aims and objectives	3 – 4
▪ Well-articulated aims and objectives	5
#3 Methodology (or system design) (methodology, or algorithm/system design)	**10**
▪ Poor or inappropriate	0 – 4
▪ Satisfactory	5 – 6
▪ High-quality	7 – 8
▪ Outstanding, a new approach in methodology, or algorithms/system design	9 – 10
#4 Implementations: completeness and quality of systems/experiments	**15**
▪ Poor and incomplete	0 – 5
▪ Satisfactory and sufficient completeness	6 – 9
▪ Excellent and largely complete	10 – 12
▪ Outstanding and mostly complete	13 – 15
#5 Effective use of technology and evidence of technical competence (relevant methods, algorithms, tools, and techniques)	**5**
▪ Little or no use	0 – 2
▪ Appropriate use	3 – 4
▪ Outstanding	5
#6 Results (or achievements of the objectives)	**10**
▪ Poor or no results achieved, or the results are inconsistent with the objectives	0 – 4
▪ Satisfactory results achieved using appropriate methods; results support some objectives	5 – 6
▪ Excellent results achieved using appropriate methods; results support most of the objectives	7 – 8
▪ Outstanding results achieved using appropriate methods; results support all of the objectives, and the results constitute notable contribution to the relevant field	9 – 10
#7 Discussion and analysis (or testing and validation)	**10**
▪ Poor or no evidence of discussion and analysis; inappropriate conclusions.	0 – 4
▪ Satisfactory discussion and analysis using appropriate evaluation methods/performance criteria; satisfactory conclusions	5 – 6
▪ Excellent discussion and analysis using appropriate evaluation methods/performance criteria; conclusions demonstrate a notable contribution to the relevant field	7 – 8

▪ Outstanding evaluation and analysis using appropriate evaluation methods/performance criteria; conclusions demonstrate evidence of original contribution to the relevant field	9 – 10	
#8 Originality, contributions, and initiative (in terms of new/different solution approach, methodology, design, use of data, and/or application)		**10**
▪ Little or no contribution	0 – 4	
▪ Routine contribution	5 – 6	
▪ Creative contribution	7 – 8	
▪ Higly innovative and original contribution	9 – 10	
#9 Organization and presentation		**10**
▪ Little or no attention to error-free writing, unorganized or poor report structure; few or inappropriate references; unreadable figures/tables; no citations/captions; unjustifiably exceeds word limit (max 20K)	0 – 4	
▪ Satisfactory error-free writing; good quality references; clear figures/tables; proper citations/captions; appropriate report structure; clear writing style; mostly within the word limit (max 20K)	5 – 6	
▪ Largely error-free writing; high-quality references; good quality figures/tables; proper citations/captions; mostly logical report structure; cohesive, detailed, and clear writing; within the word limit (max 20K)	7 – 8	
▪ Mostly error-free writing; high-quality references; high quality figures/tables; proper citations/captions; highly logical report structure; cohesive, comprehensive, and clear writing; **strictly** within the word limit (max 20K)	9 – 10	
#10 Reflection [Reflection on the project and the learning experience; and justification on the deviation from objectives mentioned in the project initiation document (PID)]		**5**
▪ Poor or no reflection, and no justification	0 – 2	
▪ Satisfactory and appropriate reflection, and satisfactory justification	3 – 4	
▪ Excellent and appropriate reflection, and proper justification	5	

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Final presentation and demonstration (35%)

Presentation criteria	Mark (100%)
Presentation structure and content quality (introduction, presentation structure, content order, content balance, content distribution, planning, problem definition and objectives, results, conclusions, presentation length, citation of sources, project process, self-reflection)	**15**
• Poor	0 – 5
• Satisfactory	6 – 9
• Excellent	10 – 12
• Outstanding	13 – 15
Presentation style and delivery (clarity, confidence, pace, eye contact, interactivity, use of visual aids, timing)	**10**
• Poor	0 – 4
• Satisfactory	5 – 6
• Excellent	7 – 8
• Outstanding	9 – 10
Response to questions (interpretation, ability to discuss and control)	**5**
• Little or no ability to understand the questions	0 – 2
• Satisfactory	3 – 4
• Excellent	5
Demonstration criteria	
Technical content (difficulty of content, scope, use of prior knowledge, innovation)	**30**
• Poor	0 – 10
• Average	11 – 14
• Satisfactory	15 – 17
• Very good	18 – 21
• Excellent	22 – 26
• Highly innovative	27 – 30
Functionality and performance (results correctness, appropriate user interface, visualization, algorithms, reliability, completeness)	**20**
• Poor	0 – 7
• Acceptable	8 – 10
• Satisfactory	11 – 13
• Excellent	14 - 17
• Outstanding	18 – 20
Demonstration quality (walk-through, justification, technical confidence, results, and remarks)	**20**
• Poor	0 – 7
• Acceptable	8 – 10
• Satisfactory	11 – 13
• Excellent	14 - 17
• Outstanding	18 – 20

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Project management (5%)

Project management Evidence through logbook keeping, supervisory meetings, project management and blackboard submissions	**Mark (100%)**
▪ Poor	0 – 39
▪ Average	40 – 49
▪ Acceptable	50 – 69
▪ Satisfactory	70 – 79
▪ Excellent	80 – 89
▪ Outstanding	90 – 100

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Mark classification

When assessing a final year project, the assessor will be answering the following questions:

- Is the problem well-articulated and relevant?
- Is it demonstrating a clear and critical evaluation of background knowledge?
- Is the implementation complete?
- Is it presenting an appropriate analysis of results and conclusion?
- Is it original in some sense?
- Is the report clearly and comprehensibly written?

The first-class mark falls into the range between 70% to 100%.

90% – 100% (First class)

- *Background knowledge* – the project demonstrates: outstanding depth of knowledge, scientific awareness, and comprehensive understanding of the state-of-the-art theories, principles, and concepts; excellent competence in identifying new approach in problem formulation, modelling, framework or architecture, and methodology.
- *Experiment and implementation competence* – clear and complete experiments/implementations; highly appropriate use of methods and tools; clear, comprehensive, and correct results; and critical evaluation and analysis (or test and validation).
- *Originality and contributions* – projects in this classification show some originality and innovation in problem formulation, solution (algorithms/system design) approach, implementation (code), testing and validation (experimental analysis)
- *Presentation quality* – the project demonstrates: clear and lucid report writing, uniform reference and bibliography; high quality of tables and figures and their reference in text; excellent and well-directed presentation; logically structured report; largely correct grammar and spelling.
- The project may contain publishable material in a suitable journal or conference.

80% – 89% (First class)

- *Background knowledge* – the project demonstrates: comprehensive depth of knowledge and scientific awareness; clear understanding of major theories, principles and concepts; very competent in competence in identifying new approach in problem formulation, modelling, framework, and methodology.
- *Experiment and implementation competence* – the project shows evidence of complete experiment and/or implementation of objective; mostly appropriate use of methods and tools; clear evaluation of the outcomes and relevant judgements.

- *Originality and contributions* – projects in this classification to a curtained extent show originality and innovation in problem formulation, solution (algorithms/system design) approach, implementation (code), testing and validation (experimental analysis).
- *Presentation quality* – the project demonstrates: clear and lucid report writing, uniform reference and bibliography; high quality of tables and figures and their reference in text; excellent and well-directed presentation; logically structured report; largely correct grammar and spelling.

70% – 79% (First class)

Excellent knowledge and depth understanding of principles and concepts; clear evidence of relevant application of theory and/or empirical results where applicable; demonstrate the steps taken, few minor errors in calculations, using recognised methods; appropriate evidence of using analytical and interpretative skills in solving the problem, evaluating outcomes and making judgements; excellent referencing and bibliography; excellent, well-directed presentation and structured report; using correct grammar and spelling.

60% – 69% (Upper second class)

Comprehensive knowledge and depth of understanding of principles and concepts; evidence of relevant application of theory and/or empirical results, where applicable; minor errors in the steps taken or in calculations, recognised methods not always used correctly; some evidence of using analytical and interpretative skills in solving the problem, evaluating outcomes and making judgements; comprehensive referencing and bibliography; good quality presentation, well-structured report; using correct grammar and spelling.

50% – 59% (Lower second class)

Appropriate knowledge and understanding of principles and concepts; some relevant application of theory and/or empirical results where applicable; steps taken in calculations lack clarity, recognised methods not used or used incorrectly; limited evidence of using analytical and interpretative skills in solving the problem, evaluating outcomes and making judgements; adequate referencing and bibliography; acceptable presentation and structured report; acceptable grammar and spelling.

40% – 49% (Third class)

Basic knowledge of key principles and concepts; limited evidence of relevant application of theory and/or empirical results; steps are taken in calculations lack clarity, calculations have numerous major errors, recognised methods not used or used incorrectly; limited use of analytical and interpretative skills; limited referencing and bibliography; weak presentation and structured report, grammar and spelling

0% – 39% (Fail)

Insufficient evidence of key principles and concepts; no evidence of application of theory and/or empirical results; no steps are taken in calculations, recognised methods not used; no analysis or interpretation; little or no referencing and bibliography; unacceptable presentation, structured report; poor grammar and spelling.