University of New England

Faculty of Arts and Sciences

School of Science and Technology

Unit Code: PMTH212
Unit name: Multi-variable Calculus
Assessment

Lecturer's name: Gerd Schmalz
Semester 1, 2011
Assessment Summary

Unit Code: PMTH212

Unit name: Multi-variable Calculus

Assignment 1
Due date: March 1
Weight: 2.5% of the final mark

Assignment 2
Due date: March 8
Weight: 2.5% of the final mark

Assignment 3
Due date: March 15
Weight: 2.5% of the final mark

Assignment 4
Due date: March 22
Weight: 2.5% of the final mark

Assignment 5
Due date: March 29
Weight: 2.5% of the final mark

Assignment 6
Due date: April 5
Weight: 2.5% of the final mark

Assignment 7
Due date: May 3
Weight: 2.5% of the final mark

Assignment 8
Due date: May 10
Weight: 2.5% of the final mark
Assignment 9

Due date: May 17
Weight: 2.5% of the final mark

Assignment 10

Due date: May 24
Weight: 2.5% of the final mark

Assignment 11

Due date: May 31
Weight: 2.5% of the final mark

Assignment 12

Due date: June 7
Weight: 2.5% of the final mark

Examination

Weight of the examination: 70%.
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## Assessment Information

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Assessment Submission

Submission method

Assessment tasks for this unit can be submitted electronically via the University's e-Submission system, or be posted to

The Assignments Section, The Teaching and Learning Centre
University of New England, Armidale, NSW 2351

e-Submission is accessible through the myUNE student portal or by clicking on the e-Submission link in your online unit.

Once your assignment has been e-submitted for marking, it will be submitted to TurnItIn for final checking by UNE. This will generate a report for the unit coordinator.

Assignments must be submitted by 23.59. Your assignment’s receipt date/time is recorded automatically. You must take into account time zone differences to avoid penalties for late submission.

Please note that you can only submit ONE file per assignment and that you are only able to submit each assignment ONCE.

If you require assistance with the e-submission of your assignment, contact the IT Service Desk on 02 6773 5000 or email servicedesk@une.edu.au.

TurnItIn

UNE uses a software application to determine the originality of assessable work submitted by its students. This software is called TurnItIn and it is part of the e-submission process.

In order that you may use TurnItIn as an educative tool, the e-submission process allows you to submit your assignment to TurnItIn for checking before you submit it for marking. This is an optional step and can occur as many times as you require in order to receive a satisfactory report. Once you are satisfied with your report, you will then submit your assignment for marking.

When a file is submitted to TurnItIn, the software compares the text in the submitted files with text from a range of electronic sources including online journals, online databases, the Internet and the TurnItIn database. Any strings of text that occur in both the submitted document and in one or more of the electronic sources are identified by the software with a unique number and colour in what TurnItIn calls the 'originality report'.
More information about e-Submission and TurnItIn can be found at http://www.une.edu.au/tlc/students/services/esub-tii.php.

AskUNE

If you require further clarification regarding e-Submission or TurnItIn, you can browse the frequently asked questions at AskUNE, or ask a question of your own by clicking on the ‘Contact Us’ tab.

Plagiarism declaration

When you submit an assignment via e-Submission, you will be deemed, in effect, to have agreed to the UNE plagiarism policy.

Assignments submitted in hard copy must include a signed plagiarism declaration form, which is included on the assignment cover sheet.

Assignment cover sheets

e-Submitted assignments do not require assignment cover sheets as these are generated automatically by the e-Submission system when you submit your assignment.

All assignments that are submitted in hard copy must have an assignment cover sheet attached. These can be accessed from myUNE, by clicking on the 'myStudy' tab and then on the icon in the Assignments list. If you have received an exemption from the requirement to have computer access, you will receive your assignment cover sheets in the mail.

Assignments that are being submitted in hard copy should be mailed to:

Assignment Section
Teaching & Learning Centre
University of New England
Armidale NSW 2351
Assessment Details and Marking Policy

Assessment details

Overview of assessment requirements

Attempting the assignments is a crucial part of mastering the materials of this unit. It provides a necessary training in the development of your skills in using mathematics to solve problems. The final examination will test your understanding of the whole materials presented in the lecture notes.

Assessment details

The 12 assignments contribute 30% of the final assessment. The student must submit reasonable attempts on at least 8 assignments.

The final examination is compulsory contributes 70% of the final assessment. The student must achieve at least 40% in the examination.

Assignment 1

Due date: March 1
Weight: 2.5%
Topic/question: Coordinates and graphs in 3-space, Vectors, Lines and planes
Assessment criteria for Assignment 1: marks awarded for the correct answers

Assignment 2

Due date: March 8
Weight: 2.5%
Topic/question: Quadric surfaces, Vector valued functions, Integration of vector valued function and arc length
Assessment criteria for Assignment 2: marks awarded for the correct answers

Assignment 3
Due date: March 15
Weight: 2.5%
Topic/question: Unit tangent and normal vectors, Curvature, Multi-variable functions
Assessment criteria for Assignment 3: marks awarded for the correct answers

Assignment 4
Due date: March 22
Weight: 2.5%
Topic/question: Limits and continuity, Partial derivatives
Assessment criteria for Assignment 4: marks awarded for the correct answers

Assignment 5
Due date: March 29
Weight: 2.5%
Topic/question: Differentiability of functions of two variables, The chain rule, Tangent planes and the total differentials
Assessment criteria for Assignment 5: marks awarded for the correct answers

Assignment 6
Due date: April 5
Weight: 2.5%
Topic/question: Directional derivatives and gradients, Functions of three and n variables, Parametric problems
Assessment criteria for Assignment 6: marks awarded for the correct answers
Assignment 7
Due date: May 3
Weight: 2.5%
Topic/question: Maxima and minima, Extrema over a given region, Lagrange multiplier

Assessment criteria for Assignment 7: marks awarded for the correct answers

Assignment 8
Due date: May 10
Weight: 2.5%
Topic/question: Double integrals, Iteration of double integrals, Double integrals in polar coordinates, Surface area

Assessment criteria for Assignment 8: marks awarded for the correct answers

Assignment 9
Due date: May 17
Weight: 2.5%
Topic/question: Triple integrals, Change of variables, Triple integrals in cylindrical and spherical coordinates

Assessment criteria for Assignment 9: marks awarded for the correct answers

Assignment 10
Due date: May 24
Weight: 2.5%
Topic/question: Line integrals, Line integrals independent of path, Green’s Theorem

Assessment criteria for Assignment 10: marks awarded for the correct answers

Assignment 11
Due date: May 31
Weight: 2.5%
Topic/question: Surface integrals, Surface integrals of vector functions, The divergence Theorem
Assessment

Assessment criteria for Assignment 11: marks awarded for the correct answers

Assignment 12

Due date: June 7
Weight: 2.5%
Topic/question: Stokes, Theorem, Applications
Assessment criteria for Assignment 12: marks awarded for the correct answers

Other assessable components

None

Examination

Weight of the examination: 70%.

The examination will be of three hours duration, preceded by 15 minutes to read the examination paper. You are allowed to bring with you three A4 sized pieces of paper of hand-written notes. Both sides can be used. No printed and photocopied materials are allowed.

The examination questions will be concerned with basic concepts and general methods. The style will be similar to the examples in the lecture notes, and the questions in the assignments and the past examination papers.

Practicum

None

Marking policy

Marks awarded for correct answers and working
Word limits

None

Presentation

Write the answers in details and show your working

Referencing

This is not needed in your assignments.

Plagiarism

You must comply with the University’s policy on Plagiarism and Academic Misconduct. The next section in this booklet directs you to the policy, outlines your responsibilities in connection with academic writing, and gives advice on how to avoid plagiarism.

Assessment preview

Asking unit coordinators for preliminary review of any assessment tasks prior to formal submission is inappropriate and unfair to other students without that opportunity.

Casual markers and moderation process

Not applicable

Extensions and late submission

Extensions can only be granted in exceptional circumstances, such as illness. The student needs to apply for extension with the unit coordinator before the due date. Penalties apply for late assignments without notification.
Return of assessments

The marked assignments together with the solutions will be returned to the students.

Re-marking of assessments tasks

Students may request that an assessment task be re-marked, in its original form, in circumstances where the student presents a case arguing that the original marking was unfair or inconsistent with marking guidelines. This request must be directly addressed to the unit coordinator, with a copy to the Head of School, by the student within 10 working days of receipt of the original marked assessment task.
Assessment Information

Assessment policy


Information about special assessment (Special Examinations, Special Extension of Time) can be found at http://www.une.edu.au/policies/alphabetic.php#S.

Plagiarism

You must comply with the University's policy on Plagiarism and Academic Misconduct (go to http://www.une.edu.au/policies/pdf/plagiarismcoursework.pdf for details). Your work will be checked for originality.

Plagiarism is the action or practice of taking and using as one's own the thoughts or writings of another without acknowledgment. The following practices constitute acts of plagiarism and are a major infringement of UNE's academic values:

• where paragraphs, sentences, a single sentence or significant parts of a sentence are copied directly, are not enclosed in quotation marks and appropriately referenced;
• where direct quotations are not used, but are paraphrased or summarised, and the source of the material is not referenced within the text of the paper; and
• where an idea which appears elsewhere in any form* is used or developed without reference being made to the author or the source of that idea.

*Some examples of this are books, journals, WWW material, theses, computer stored data and software, lecture notes or tapes.

Your responsibility

It is your responsibility to:

• read, understand and comply with the policy on Plagiarism and Academic Misconduct found at the website above;
• familiarise yourself with the conventions of referencing for your discipline(s);
• avoid all acts which could be considered plagiarism or academic misconduct;
• seek assistance from appropriate sources if you become aware that you need more knowledge and skills in relation to academic writing;
• be aware that when you submit an assignment through the University’s e-Submission system, you are deemed to have signed the plagiarism declaration form;
• submit a separate signed and dated plagiarism declaration form with every task, report, dissertation or thesis submitted in hard copy for assessment or examination.

Avoiding Plagiarism

You should refer to the following websites for further advice and assistance:
  This information explains the principles of good scholarship and has guidelines to help you avoid plagiarism. It also has guidelines for referencing and research, and advice on the use of internet sites.

  The Academic Skills Office has a variety of support materials to assist you with referencing and avoiding plagiarism.

  eSkills Keeping Track has advice about organising your information for assignments and on referencing appropriately.

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**UNE grading system**

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<td><strong>HD</strong> High Distinction 85% and above</td>
<td>Excellent performance indicating complete and comprehensive understanding and/or application of the subject matter; achieves all basic and higher-order intended unit objectives and graduate attributes linked to the assessment tasks; minimal or no errors of fact, omission and/or application present; clear and unambiguous evidence of possession of a very high level of required skills; demonstrated very high level of interpretive and/or analytical ability and intellectual initiative; very high level of competence.</td>
</tr>
<tr>
<td><strong>D</strong> Distinction 75 to 84%</td>
<td>Very good performance indicating reasonably complete and comprehensive understanding and/or application of the subject matter; achieves all basic and most higher-order unit objectives and graduate attributes linked to the assessment tasks; some minor flaws; clear and unambiguous evidence of possession of a high level of required skills; demonstrated high level of interpretive and/or analytical ability and intellectual initiative; high level of competence.</td>
</tr>
<tr>
<td><strong>C</strong> Credit 65 to 74%</td>
<td>Good performance indicating reasonable and well-rounded understanding and/or application of the subject matter; achieves all basic but only a few higher-order intended unit objectives and graduate attributes linked to the tasks; a few more serious flaws or several minor ones; clear and unambiguous evidence of possession of a reasonable level of most required skills; demonstrated reasonable level of interpretive and/or analytical ability and intellectual initiative; reasonable level of competence.</td>
</tr>
<tr>
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<td>P</td>
<td>Satisfactory performance indicating adequate but incomplete or less well-rounded understanding and/or application of the subject matter; achieves many basic but very few or none of the higher-order intended unit objectives and graduate attributes linked to the assessment tasks; several serious flaws or many minor ones; clear and unambiguous evidence of possession of an adequate level of an acceptable number of required skills; demonstrated adequate level of interpretive and/or analytical ability and intellectual initiative; adequate level of competence.</td>
</tr>
<tr>
<td>N</td>
<td>Unsatisfactory performance indicating inadequate and insufficient understanding and/or application of the subject matter; achieves few or none of the basic and higher-order intended unit objectives and graduate attributes linked to the assessment tasks; numerous substantive errors of fact, omission and/or application present; clear and unambiguous evidence of non-possession of most or all required skills; insufficiently demonstrated level of interpretive and/or analytical ability and intellectual initiative; fails to address the specific criteria; inadequate level of competence.</td>
</tr>
<tr>
<td>NI</td>
<td>One or more mandatory requirements for the completion of the unit (as detailed in the Unit Requirements) were not fulfilled.</td>
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<tr>
<td>S or US</td>
<td>In some units, the grading system is organised on a satisfactory/unsatisfactory (pass/fail) basis. When this grading system is used the appropriate interpretive descriptors to apply will be those for the grade of at least Pass or Fail.</td>
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<td>The student withdrew from the unit without academic penalty.</td>
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**Examinations**

The Examinations page at [http://www.une.edu.au/exams/](http://www.une.edu.au/exams/) has important information about examinations, including your responsibilities as a student in relation to exams, information about examination dates and special exams, and links to who to contact if you have queries.

**Appeals**

Students wishing to lodge an appeal in relation to unit assessment; practical and/or professional experience assessment; the application of faculty policies; Special
Examinations; and Special Extensions of Time, should consult the University's Student Appeals Policy at: http://www.une.edu.au/policies/pdf/studentappealspolicy.pdf.

**AskUNE**

If you have questions related to assessment that are not covered in this booklet, go to AskUNE. At AskUNE you can find answers to many common enquiries or submit an enquiry of your own by clicking on the 'Contact Us' tab.