Unit Outline 2014
Faculty of Health

Unit Title: Food Science
Unit Number: 8251
This Unit Outline must be read in conjunction with:

a) *UC Student Guide to Policies*, which sets out University-wide policies and procedures, including information on matters such as plagiarism, grade descriptors, moderation, feedback and deferred exams, and is available at *(scroll to bottom of page)*

b) *UC Guide to Student Services*, and is available at *(scroll to bottom of page)*

c) Any additional information specified in section 6h.

### 1: General Information

1a Unit title: Food Science

1b Unit number: 8251

1c Teaching Period and year offered: Semester 2, 2014

1d Credit point value: 3

1e Unit level: 2

1f Name of Unit Convener and contact details (including telephone and email)

   Dr Nenad Naumovski  
   Room: 1C130  
   Phone: (02) 6206 8719  
   Email: Nenad.Naumovski@canberra.edu.au

1g Administrative contact details (including name, location, telephone and email)

   Mr Marial Kot  
   Room: 1C139  
   Phone: 6201 2477  
   Email: Marial.Kot@canberra.edu.au
2: **Academic Content**

**2a Unit description and learning outcomes**

The unit addresses topics such as food as a commodity, food science and technology including physical and chemical properties of macronutrients and other components in food, effects of processing, principles of food preservation, and mechanisms of food poisoning and ways to prevent it. The principles and practices of food hygiene and legislation on food safety are a major focus, as is the role of the major organisations involved in food regulation in Australia. This unit is co-taught with the unit Food Science (8252) G.

At the end of this unit, students will be able to:
1. Demonstrate a thorough knowledge of food science and technology as it relates to nutrition;
2. Outline the major reactions occurring in foods as a result of processing and storage;
3. Describe the principles of food preservation and the major types of processes used;
4. Describe the beneficial and detrimental effects of micro-organisms in food;
5. Outline the processes for safeguarding and monitoring food quality in Australia (e.g. food standards, food labelling); and
6. Describe the roles of various bodies in Australia for regulating food standards.

**2b Generic skills**

Generic skills developed in this unit include:

1. **Communication**: the ability to present knowledge, ideas and opinions effectively and communicate within and across professional and cultural boundaries
2. **Analysis and Inquiry**: the ability to gather information, and to analyse and evaluate information and situations in a systematic, creative and insightful way
3. **Problem solving**: the ability to apply problem-solving processes in novel situations; to identify and analyse problems and then formulate and implement solutions
4. **Work independently and with others**: the ability to plan their own work, be self-directed, and use interpersonal skills and attitudes to work collaboratively.
5. **Professionalism & Social Responsibility**: The capacity and intention to use professional knowledge and skills ethically and responsibly, for the benefit of others and the environment.

**2c Prerequisites and/or co-requisites**

1516 Chemistry 1A AND 9279 Introduction to Food Science.

3: **Delivery of Unit and Timetable**

**3a Delivery mode**

This unit is delivered in an on-campus mode in semester 2 with approximately 5 contact hours per week, consisting of weekly face-to-face lectures and laboratory/tutorial sessions. There will be a small online component required to supplement the laboratory/tutorial session in week 12.

**Face-to-face lectures**: There will be 12 x 2 hour face-to-face lectures. The lectures will be recorded and will be made available on the unit Moodle site after the lecture. In addition, a pdf copy of the lecture slides will be made available on the unit Moodle site prior to the lecture.

**Laboratory/tutorial sessions**: There will be 6 x 3 hour laboratory sessions and 4 x 2 hour tutorial sessions across the semester. Each student will enrol in one Laboratorial/tutorial group (i.e 1 or 2).
Instructions for each laboratory session and tutorial will be provided on the Food Science unit Moodle site ([http://learnonline.canberra.edu.au/course/view.php?id=12058](http://learnonline.canberra.edu.au/course/view.php?id=12058)) prior to the commencement of each Laboratory or Tutorial session. Students are required to read the relevant information prior to each tutorial and laboratory session and bring in the printout of the session into the relevant laboratory or tutorial session. Please note that during the Laboratory sessions use of electronic devices is NOT ALLOWED in the room.

### 3b Timetable of activities, such as lectures/ tutorials/ practicals/ field classes, showing key dates and topics

<table>
<thead>
<tr>
<th>Lecture:</th>
<th>Tutorial/Laboratory</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 1: 11th – 15th August 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 1: Introduction and overview of the unit Food Science</td>
<td>Laboratory Safety Module (online) No Tutorial or Laboratory Sessions</td>
<td>Laboratory Safety Quiz (online)</td>
</tr>
<tr>
<td><strong>Week 2: 18th – 22nd August 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 2: Physiochemical Aspects of Food Preparation</td>
<td>Laboratory 1 – Selection and Characteristics of Protein Food Sources</td>
<td></td>
</tr>
<tr>
<td><strong>Week 3: 25th – 29th August 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 3: Water as functional component in food science</td>
<td>Laboratory 2 – Food Microbiology and Yoghurt Production</td>
<td>Lab 1 LCQ</td>
</tr>
<tr>
<td><strong>Week 4: 1st – 5th September 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 4: Proteins and Protein food products</td>
<td>Laboratory 3 – Quality indicators of Yoghurt</td>
<td>Lab 2 LCQ</td>
</tr>
<tr>
<td><strong>Week 5: 8th – 12th September 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 5: Milk and Milk Food Products</td>
<td>Laboratory 4 – Milk and Milk Products</td>
<td>Lab 3 LCQ</td>
</tr>
<tr>
<td><strong>Week 6: 15th – 19th September 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 6: Fats and Oils in Food Products</td>
<td>Tutorial 1 – Observation of microbiological plates from Laboratory 4 and Writing of Scientific Papers in Food Science</td>
<td>Quiz 1 (online)</td>
</tr>
<tr>
<td>Lecture</td>
<td>Tutorial/Laboratory</td>
<td>Assessment</td>
</tr>
<tr>
<td>---------</td>
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<td>------------</td>
</tr>
<tr>
<td><strong>Week 7: 22\textsuperscript{nd} – 26\textsuperscript{th} September 2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 7: Carbohydrates in Food</td>
<td>Laboratory 5 – Food Processing Waste and Characteristics of Lipids</td>
<td>Lab 4 LCQ</td>
</tr>
</tbody>
</table>

**Week 8: 29\textsuperscript{th} September – 3\textsuperscript{rd} October 2014 – CLASS FREE PERIOD**

**Week 9: 6\textsuperscript{th} – 10\textsuperscript{th} October 2014**

| Lecture 8: Starches in Food | Laboratory 6 – Characteristics of Cereals, Starches and Grains | Lab 5 LCQ |
| | | Major Laboratory Report |

**Week 10: 13\textsuperscript{th} – 17\textsuperscript{th} October 2014**

| Lecture 9: Functional food products | Tutorial 2 – Food Product Development and Food Labeling | Lab 6 LCQ |

**Week 11: 20\textsuperscript{th} – 24\textsuperscript{th} October 2014**

| Lecture 10: Microbiological spoilage and formation of toxicants during the food production | Tutorial 3 – Chemical and biochemical toxicants during the food manufacture, |

**Week 12: 27\textsuperscript{th} – 31\textsuperscript{st} October 2014**

| Lecture 11: Genetically Modified Foods | Tutorial 4 – Genetically Modified Foods (Online Activity) | Quiz 2 (online) |

**Week 13: 3\textsuperscript{rd} – 7\textsuperscript{th} November 2014**

| Lecture 12: Review of Unit | No Tutorial or Laboratory Sessions |

*LCQ – Laboratory Consolidation Questions*
4: **Unit Resources**

4a **Lists of required texts/reading**

The following texts are required for this unit:


The text can be purchased from the Co-op Bookshop on campus for approximately $110. Copies of the McWilliams textbook (6th edition that is also suitable for this unit) will also be available on short loans in the library (Library Reference number: TX531.M38.2008 and TX531.M38.2012). Students will be directed to additional readings on e-reserve as required. E-reserve can be accessed from the Unit Moodle site: [http://learnonline.canberra.edu.au/course/view.php?id=12058](http://learnonline.canberra.edu.au/course/view.php?id=12058).

**Other texts available in the library:**
The following supplementary text will be available in the 3 hour loan section of the library. Please note you do not need to buy this text, it will be available in the Library (Library Reference number TP370.M87 2003).


**e-Reserve:**
Students will be directed to additional readings available freely on the web or e-reserve as required. The e-reserve site for the Food science unit can be accessed via the unit Moodle site [http://learnonline.canberra.edu.au/course/view.php?id=12058](http://learnonline.canberra.edu.au/course/view.php?id=12058).

**Useful Websites:**
The following websites will also be useful for this unit:


4b **Materials and equipment**

Students will require a scientific calculator for both the laboratory and tutorial sessions. For each of the laboratory sessions appropriate footwear, protective eyewear and laboratory coats are **ESSENTIAL**, and the latter two can be purchased from the newsagency in the hub. Please note that students **WILL NOT BE GRANTED AN ENTRY INTO THE LABORATORY** if they do not wear appropriate footwear, clean laboratory coat and safety glasses.

4c **Unit website**
The lectures, online sessions and other information for this Unit can be accessed from the Unit Moodle website: [http://learnonline.canberra.edu.au/course/view.php?id=12058](http://learnonline.canberra.edu.au/course/view.php?id=12058). Access to this website is an essential requirement of this Unit.
### 5: Assessment

#### 5a Assessment overview

*Some assessments will be moderated, as per the School of Public Health and Nutrition’s Moderation Procedures. A copy of the Moderation Procedures is available on Moodle.*

<table>
<thead>
<tr>
<th>Assessment Item (including exams held in the exam period)</th>
<th>Due date of assignments</th>
<th>Weighting (total to equal 100%)</th>
<th>Addresses learning outcome(s)</th>
<th>Related generic skill(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Safety Quiz</td>
<td>17.08.2014 (Sunday) by 5.00PM</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment 1: Laboratory Consolidation Questions</td>
<td>During Laboratory Session times for weeks 3,4,5,7,9&amp;10</td>
<td>10%</td>
<td>1,2,3,4</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>Assessment 2: Major Laboratory Report</td>
<td>10.10.2014 (Friday) by 5.00PM</td>
<td>30%</td>
<td>1,2,3,4</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>Assessment 3: Online Quiz 1</td>
<td>19.09.2014 (Friday) by 5.00PM</td>
<td>10%</td>
<td>1,2,3,4</td>
<td>2,3,4,5</td>
</tr>
<tr>
<td>Online Quiz 2</td>
<td>31.10.2014 (Friday) by 5.00PM</td>
<td>10%</td>
<td>1,2,3,4,5,6</td>
<td>2,3,4,5</td>
</tr>
<tr>
<td>Assessment 4: Final Examination</td>
<td>Exam Period Semester 2 2014</td>
<td>40%</td>
<td>1,2,3,4,5,6</td>
<td>2,3,5</td>
</tr>
</tbody>
</table>

**UC Generic Skills**
1 - Communication
2 - Analysis and Inquiry
3 - Problem Solving
4 - Working independently and with others
5 - Professionalism and Social Responsibility

#### 5b Details of each assessment item

**Laboratory Safety Quiz**

**Value:** 0% of the final mark (Must achieve 80% to gain access to laboratory)

**To be completed by:** 5pm Sunday 17th August 2014

**Time allocated:** 30 minutes
The quiz comprises 20 multiple choice questions and you have 30 minutes to complete. The content of the quiz is based on the accompanying Laboratory Safety Notes. The Laboratory Safety Quiz can be accessed from the ASSESSMENT box in the unit Moodle site. You will be allowed multiple attempts until you achieve a minimum of 80% in the quiz, failure to do so will result in you being EXCLUDED from laboratory sessions (in Weeks 2,3,4,5,6,7 & 9).

Assessment 1: Laboratory Consolidation Questions (10% of total assessment)

Value: 10% of total assessment
Due date: During laboratory session times for weeks 3,4,5,7,9,10
Submit to: Lecturer/Tutor in Laboratory Session

Assessment Description:

In this unit there are six (6) laboratory practicums that students are required to attend to. Within these six, students are required to complete at least four (4) Laboratory Consolidation Questions (LCQ) and present them to the Lecturer during the next laboratory session (or as advised). For each correctly completed and presented LCQ, students will receive a mark of up to 2.5% of the final mark and highest four marks (4) will be summed and provided as a final mark for Assessment 1. Each LCQ is composed of several short answer questions directly related to the Laboratory Practicum.

Assessment 2: Major Laboratory Report (30% of total assessment)

Value: 30% of total assessment
Word Limit: No Greater than 2500 words (not including Abstract or References)
Due date: by 5.00PM on Friday 10.10.2014
Submit to: Units Moodle Drop Box (Assessments section)

Assessment Description:

This assessment task involves writing of a laboratory report in a form of a scientific paper. Students are required to select ONE of the following topics from laboratory sessions:

1. Food Microbiology and Yoghurt Production OR
2. Milk and Milk Products

Each laboratory report topic is weighed equally.

The marking criteria will be provided at the individual laboratory sessions and will also be made available on the units Moodle site http://learnonline.canberra.edu.au/course/view.php?id=12058.

The laboratory report should be organised into the following sections; Abstract, Introduction, Materials and Methods, Results, Discussion and References. The report should not be longer than 2500 words (Excluding the Abstract or References), and format should use line spacing 1.5 and report should be written using size 12 font Times New Roman.

Briefly, Abstract (although not included in the final word count still has to be written) should provide clear statement of major and specific objectives with the brief outline of methods used and key quantitative results reported. This section should also provide a one sentence conclusion of the study.

The Introduction section should provide a brief but adequately referenced background to the report in which the significance of the project is clearly defined. This section is not a complete review and should contain background necessary to conduct the experiment as well as aims and objectives.

Methods section is a summary of essential experimental procedures (verbatim reproduction of the instructions in manual is not allowed) and this section needs to be referenced adequately including the
Laboratory notes. In particular, any changes to the published procedures (of the laboratory notes) are to be included. The purpose of this section is to provide enough information and detail to allow a competent worker in the field to reproduce the experiment.

Result section should include all three forms of data representation (text, table and figure). A series of tables or figures presented by themselves is insufficient. The text following each data set should summarise quantitative data and observations presented in the data set (tables, figures as appropriate). The author’s interpretation of the data should always be described in the text, but results are not to be discussed at this stage. In this section use of simple statistical analysis may also be utilised to evaluate whether treatments are real or due to the biological variation. Figures and tables have to include title and number (Figure 1, Table 1…). Figures should be accompanied by a figure legend (which includes the title of the figure) placed beneath the figure and clearly distinguishable from the main text of the results section. Tables should have a title placed above the table and tables should not be broken across the pages.

Discussion should discuss the obtained results highlighting any important findings and any inadequacies of the data. Referral to the literature to support the arguments is essential as well as addressing of the aims presented in the introduction section. This section is to be completed with a final sentence (or two) presenting overall conclusion of the experiment with the reference to the original aims. **The concluding paragraph should not include references.**

References used should be in accordance to Vancouver style. More information about this style can be obtained from the Unit Moodle web site: [http://learnonline.canberra.edu.au/course/view.php?id=12058](http://learnonline.canberra.edu.au/course/view.php?id=12058)

**Assessment 3: Online Quizzes**

**Value:** 20% (of overall assessment; each quiz is worth 10%)

**Number of Quizzes:** 2

**Questions each quiz:** 20 Multiple Choice Questions (MCQ’s)

**Time allowed:** 25 minutes per quiz

**To be completed:** During Week 6 (Quiz 1) and Week 12 (Quiz 2)

**Assessment Description:**

The instructions for the quizzes are as follows:

1. The quizzes are to be completed during the students’ own time, not during lectures or tutorials.
2. The quizzes are based on the work covered in the previous weeks’ lectures, workshops and readings (see table below).
3. Each quiz can be accessed from the Units Moodle site (Assessments section), and will be open for a period of 48 hours.
4. The following table shows the details of each quiz.
5. After commencing the quiz, you will have 25 minutes to complete the quiz.
6. You will only be able to attempt the quiz once.

<table>
<thead>
<tr>
<th>Online Quiz</th>
<th>Week conducted</th>
<th>Opening time and date</th>
<th>Closing time and date</th>
<th>Lectures, Workshop and readings covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Week 6</td>
<td>5pm Wednesday 17.09.2014</td>
<td>5pm Friday 19.09.2014</td>
<td>Lectures: 2,3,4,5,6 Laboratory 1,2,3,4 Tutorial 1 and associated readings</td>
</tr>
<tr>
<td>2</td>
<td>Week 12</td>
<td>5pm Wednesday 29.10.2014</td>
<td>5pm Friday 31.10.2014</td>
<td>Lectures: 7,8,9,10,11 Laboratory 5,6 Tutorial 2,3,4 and associated readings</td>
</tr>
</tbody>
</table>
Deferred quizzes:
1. Deferred quizzes will only be granted for a good reason (e.g. illness).
2. Requests should be made directly to the unit convenor, with a copy of the request for a deferred quiz form (copy can be found on the Unit Moodle site) and be accompanied by a medical certificate or other evidence (e.g. letter from a counsellor).

Assessment 4: Examination (40% of total assessment)

Value: 40%
Due date: Examination period
Time allowed: 2 hours
Materials allowed: scientific calculator and an unannotated English dictionary
Test format: Multiple Choice Questions and Short Answer Questions

The final examination covers all information presented in the lectures, laboratory sessions, tutorials and recommended readings from weeks 1 to 13. You will be assessed on your knowledge of the unit and your ability to apply the information to a case scenario or problem-solving situation.

Deferred examinations:
Deferred examinations will only be granted for a good reason (e.g. illness). Requests should be made directly to the examination officer and be accompanied by a medical certificate or other evidence (e.g. letter from a counsellor). Refer to the university policy for guidelines: http://www.canberra.edu.au/student-services/examinations/alternative-exams

5c Submission of assessment items

All assessment items will be submitted online via the unit Moodle site. The first page of each assessment submission should include the following information:

Student Name:
Student ID:
Assessment Name:
Word Count (if applicable):

5d Special assessment requirements

To pass the unit, students MUST:
1. Complete all assessment items;
2. Attain at least 50% in all assessment items
   o Cumulative mark for Quiz 1 & 2;
   o Cumulative mark for all LCQ’s;
   o Major Laboratory Report
3. Attain at least 50% in the final exam; and
4. Attain at least 50% overall (total grade).

Late submission of assignments
Late submission of assignments without an approved extension will result in the assignment not being marked and zero being recorded for that particular assignment.
In extenuating circumstances a late submission may be considered upon the production of supporting documentation and at the discretion of the unit convenor.
**Extensions**: Extensions must be applied for before the due date. Students can apply for an extension to the due date for submission of an assessment item on the grounds of illness or other unavoidable and verifiable personal circumstances. Documentary evidence will be expected in order that an extension be granted. It should be noted that such documentation will be considered but will not guarantee that the application will be successful. The Unit Convenor will decide whether to grant an extension and the length of the extension.

5e **Supplementary assessment**  
REFER TO THE UC SUPPLEMENTARY ASSESSMENT POLICY

5f **Academic Integrity**

Students have a responsibility to uphold University standards on ethical scholarship. Good scholarship involves building on the work of others and use of others’ work must be acknowledged with proper attribution made. Cheating, plagiarism, and falsification of data are dishonest practices that contravene academic values. Please see UC's Academic Integrity Policy.

To enhance understanding of academic integrity, it is expected that all students will complete the LearnOnline Academic Integrity Module (AIM) at least once during their course of study. The module is automatically available as a listed site when students log into LearnOnline.

5g **Use of text-matching software**

The University of Canberra has available, through LearnOnline (Moodle), text-matching software that helps students and staff reduce plagiarism and improve understandings of academic integrity. Known as URKUND, the software matches submitted text in student assignments against material from various sources: the internet, published books and journals, and previously submitted student texts. Click here for further information on the URKUND text-matching software.

Students are required to submit their poster through URKUND prior to submission.

6: **Student Responsibility**

6a **Workload**

The amount of time you will need to spend on study in this unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp unit the total notional workload over the semester or term is assumed to be 150 hours. These hours include time spent in classes. The total workload for units of different credit point value should vary proportionally. For example, for a 6cp unit the total notional workload over a semester or term is assumed to be 300 hours.

6b **Inclusion and Welfare**

Students who need assistance in undertaking the unit because of disability or other circumstances should inform their Unit Convenor or Inclusion and Welfare as soon as possible so the necessary arrangements can be made.
6c Participation requirements

Students are strongly encouraged to attend all lecture and face-to-face tutorial/laboratory sessions and complete all self-directed/online learning activities. If a student does not attend class, it is the responsibility of the student to cover any missed work.

6d Withdrawal

If you are planning to withdraw please discuss with your unit convener. Please see Withdrawal of Units for further information on deadlines.

6e Required IT skills

Students are expected to submit word processed assignments. Computers are available in building 10 (24 hours/day). Do not submit any or on disc or by email and always keep a backup copy.

6f In-Unit Costs

Students will be required to purchase a lab coat, protective eyewear and calculators, all of which can be purchased from the University Newsagency. The text: McWilliams, M. Foods: Experimental Perspectives, 7th Edn International Edition, New York: Pearson Prentice Hall. 2014 (approximately $110) can be purchased from the UC Co-op book shop.

(Note: To calculate your unit fees see: How do I calculate my fees? The online UC Co-op Textbook Search is available for purchasing text books.)

6g Work placements, internships or practicums

There are no work placements, internships or practicums for this unit.

6h Additional information

The Faculty of Health Learning Resource Centre provides a mentor, 2 hours per week, to provide assistance to students on assessments, referencing and researching tasks related to this unit (see the Moodle site for the Faculty of Health Learning Resources Centre for further details regarding the mentor sessions).

7: Student Feedback

All students enrolled in this unit will have an opportunity to provide anonymous feedback on the unit at the end of the Semester via the Unit Satisfaction Survey (USS) which you can access by logging into MyUC via the UC homepage: http://www.canberra.edu.au/home/ Your lecturer or tutor may also invite you to provide more detailed feedback on their teaching through an anonymous questionnaire. Minor adjustments have been made to the unit based on the 2013 USS comments.

8: Authority of this Unit Outline

Any change to the information contained in Section 2 (Academic content), and Section 5 (Assessment) of this document, will only be made by the Unit Convener if the written agreement of Head of Discipline and a majority of students has been obtained; and if written advice of the change is then provided on the unit site in the learning management system. If this is not possible, written advice of the change must be then forwarded to each student
enrolled in the unit at their registered term address. Any individual student who believes him/herself to be disadvantaged by a change is encouraged to discuss the matter with the Unit Convener.
## Attachment A: Marking scheme for Laboratory Report

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Fail</th>
<th>Pass</th>
<th>Credit</th>
<th>Distinction</th>
<th>High Distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>5%</td>
<td>• All major abstract aspects missing</td>
<td>• Most major aspects missing</td>
<td>• Some major aspects missing</td>
<td>• All major aspects present</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lack of understanding of aim and purpose of abstract</td>
<td>• Limited understanding of aim and purpose of abstract</td>
<td>• Understanding of aim and purpose of abstract</td>
<td>• Excellent understanding of aim and purpose of abstract</td>
</tr>
<tr>
<td>Introduction</td>
<td>25%</td>
<td>• Little background information</td>
<td>• Basic Introductory information provided / Aims of the study are provided</td>
<td>• Good introductory information</td>
<td>• Complete and well-written introductory information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Incorrect information provided / No or incorrect statement of aims</td>
<td>• Missing some major points</td>
<td>• Most major points provided / Aims of the study are provided</td>
<td>• All major points provided</td>
</tr>
<tr>
<td>Methods</td>
<td>15%</td>
<td>• Important experimental details missing</td>
<td>• Some important details missing</td>
<td>• Most important details covered</td>
<td>• All important details covered</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Not written in paragraph format</td>
<td>• Written in paragraph format</td>
<td>• Well-written in paragraph format</td>
<td>• Well-written in paragraph format</td>
</tr>
<tr>
<td>Results</td>
<td>15%</td>
<td>• Misleading, confusing and or incorrect information</td>
<td>• Missing and/or incorrect information</td>
<td>• Good figures, graphs and/or tables</td>
<td>• Excellent figures, graphs and/or tables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No understanding and/or poorly presented results and discusses results</td>
<td>• Adequate results but limited understanding of results/data</td>
<td>• Good information, results, interpretation of data and trends</td>
<td>• Excellent information and understanding of results, excellent use of appropriate style to represent results.</td>
</tr>
<tr>
<td>Discussion</td>
<td>25%</td>
<td>• No discussion</td>
<td>• Limited discussion</td>
<td>• Good conclusion</td>
<td>• Excellent discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Missing important information</td>
<td>• Important information missing / limited conclusion paragraph / limited data discussion</td>
<td>• All important information provided / good discussion of data</td>
<td>• All important points aspects well discussed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Little effort or reflection shown</td>
<td>• Appropriate discussion and conclusion paragraph</td>
<td></td>
<td>• High level, original thought demonstrated and good conclusion paragraph provided</td>
</tr>
<tr>
<td>References</td>
<td>10%</td>
<td>• Incorrect in text referencing</td>
<td>• Some in text references missing</td>
<td>• Good citing and reference list</td>
<td>• Excellent citing and reference list</td>
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<td>• No and/or very poor reference list /Lecture notes used as references</td>
<td>• Poor reference list</td>
<td>• Variety of sources</td>
<td>• Wide variety of quality sources</td>
</tr>
<tr>
<td>Formatting</td>
<td>5%</td>
<td>• Not in correct order; Over/Under 10% word threshold Limit; Inappropriate format; Significant grammatical errors</td>
<td>• In correct order; Within the word limit; Some grammatical errors</td>
<td>• In correct order; within the word limit; good use of academic language; minor formatting problems</td>
<td>• In correct order; well-formatted; very readable</td>
</tr>
</tbody>
</table>