School of Applied Sciences and Mathematics

THE STUDENT REPORT MANUAL

Food Science and Technology
Food Science and Human Nutrition
Agrotechnology (Minor in Business)

Last Updated: January 20th, 2024

Table of Content

Coursework Declaration

This form must be completed, signed and attached as a cover sheet to submitted coursework.
Coursework submitted without this form will not be marked.

Student Name(s) & Registration no(s)		**Group** (*if relevant*)	
Programme			
Module			
Lecturer			
Title of Work			
Due date			

Plagiarism is where someone attempts to pass off another person's work as their own. This includes: copying from another student's work; allowing another student to copy his/her work; copying from a book, article, or similar materials; and copying from the internet or other electronic media. To copy without acknowledgement of the source (due to insufficient, poor or no referencing of work) is plagiarism **[UTB AOSR]**.

I confirm that:

- I understand the above definition of plagiarism.
- The work contained in the attached document is all my own work except where it has been referenced accordingly.
- For coursework submitted late, 5% marks per day (working/non-working day) will be deducted from the total marks, unless an extension has been authorised.

I declare that (tick any that apply):

☐ I did not use generative AI (genAI) for any part of my submission. All contents are entirely my work.
☐ I used genAI or other writing assistance tools only to improve my writing in terms of grammar, spelling, vocabulary and syntax.
☐ I used genAI to generate contents, ideas, and/or structure, which I then paraphrased in my submission.*
☐ I used genAI to generate contents which I have copied directly into my submission.*

* a copy of the prompts and outputs has been included as an appendix to my submission. The genAI tool used has also been cited.

Student(s) Signature(s)	**Submission Date**

Please cut along this line

Coursework Receipt (*To be retained by student as proof of submission, if not submitted electronically*)

Module		**Date received**	
Title of Work			
Lecturer Name & Signature			

EXPERIMENT TITLE

Student Name, Roll Number

Student Name, Roll Number

Student Name, Roll Number

MODULE NAME

MODULE CODE

COURSE NAME

MONTH YEAR

Abstract (1 paragraph)

Here you should summarise the whole report, starting with a few sentences on Introduction, followed by the aim of the experiment, methods, major results obtained and conclusions. The abstract should be in 250 words or less.

TABLE OF CONTENTS

Contents

List of Figures

List of Tables

1 Introduction (1-2 pages)

Give background history of your experiment.

Provide definitions and relevant theory.

For Chemistry, introduce the reaction scheme. Use Chemdraw to draw chemical structures.

Any Figures should be captioned.

Include aims and objectives of the report.

Remember to include in-text citations in paragraphs.

2 Materials and Methods (1-2 pages)

List the materials used.

Describe the setup of the experiment.

Ensure to use past tense.

You may use either numberings or in paragraphs to show the step-by-step procedure.

3 Results (1-2 pages)

Show your results in table, and any tables should be captioned and relate to the paragraph.

Show calculations of your results. Don’t forget the units.

Describe the results and observations, comparisons, highest, lowest, etc.

4 Discussion (1-3 pages)

Discuss your results and observations here. Include justifications.

Use the literature to compare your findings. Is it the same? If its not the same, what could be the error?

Explain the idea behind the results. E.g. if the reaction gives white precipitate, state what could be the white precipitate and why did it appear?

This section requires you to answer the what, why and how questions based on your results.

Future work and real world applications can be included as well.

5 Conclusion (1 paragraph)

Conclude your results. Highlight the main findings. There should not be references in conclusion.

6 References

Follow **APA referencing** and list in alphabetical order, examples:

Alred, G. J., Brusaw, C. T., & Oliu, W. E. (2009). The business writer's handbook. New York, NY: St Martin's Press.

Best, A. (2004). International history of the twentieth century. Retrieved from http://www.netlibrary.com

Easton, B. (2008). Does poverty affect health? In K. Dew & A. Matheson (Eds.), Understanding health inequalities in Aotearoa New Zealand (pp. 97-106). Dunedin, New Zealand: Otago University Press.

Flesch, R. (n.d.). How to write plain English. Retrieved April 12, 2009, from http://www.mang.canterbury.ac.nz/writing_guide /writing/flesch.shtml

Li, S., & Seale, C. (2007). Learning to do qualitative data analysis: An observational study of doctoral work. Qualitative Health Research, 17, 1442–1452. https://doi.org/10.1177/1049732307306924

Radio New Zealand. (2008). Annual report 2007-2008. Retrieved from http://static.radionz.net.nz/assets /pdf_file/0010/179676/Radio_NZ_Annual_Report_2008.pdf

Read, E. (2007, November 1). Myth-busting gen Y. New Zealand Management. Retrieved from http://www.management.co.nz

INDUSTRIAL VISIT REPORT

STUDENT CODE: B……..

UNIVERSITI TEKNOLOGI BRUNEI
SCHOOL OF APPLIED SCIENCES AND MATHEMATICS
FOOD SCIENCE AND TECHNOLOGY

Place of the visit

Date of the visit

Name of the Student

Student Code: Bxxxxxxx

Bxxxxxxxx@student.utb.edu.bn

Name of the Module

Module code: SF

Company´s Background: *A paragraph of 1-8 lines (maximum)*

INDUSTRIAL VISIT REPORT *STUDENT CODE: B……..*

Main Objectives: *1-5 bullet point sentences (maximum)*

- *1*
- *2*
- *3*
- *4*
- *5*

Main Observations: *1-5 bullet point sentences (maximum)*

- *1*
- *2*
- *3*
- *4*
- *5*

Outcome of the visit: *1-5 bullet point sentences (maximum)*

- *1*
- *2*
- *3*
- *4*
- *5*

Opportunities to develop the company ***(e.g. facility/ processing/ products/ marketing/ investment/ etc.).*** *1-10 bullet point sentences (maximum)*

- *1*
- *2*
- *3*
- *4*
- *5*
- *6*
- *7*
- *8*
- *9*
- *10*

Additional Thinking *(e.g. your own Q&A during the visit)*: *1-5 bullet point sentences (maximum)*

- *1*
- *2*
- *3*
- *4*
- *5*

References: *1-3 references maximum (if any)*

BSc (Hons) Food Science and Technology

Essay Guidance and Structure

Essays are an assessment item that can indicate your understanding of a topic. They can demonstrate how well you search for information, put ideas together in a logical sequence and write academically.

An essay can be analytical, argumentative or persuasive. You may be asked to discuss, analyze, explain, investigate, explore or review a topic. Your essay must show evidence of research, using a wide range of quality, peer reviewed academic sources.

Steps for writing an essay

Essays require a specific structure. The introduction, body and conclusion have a specific function within the writing. Check with your lecturer or tutor if you are unsure how to approach your essay.

Use the assessment task question to work out what you are required to do, and guide you with the essay format. Do you have to compare and contrast, evaluate or discuss? These directive verbs indicate the type of essay you need to write and how to structure it. Identify the keywords and phrases to use when searching for information around your topic. Use the marking criteria sheet to help you decide the most crucial elements of the essay.

Use the essay paragraphs to develop your argument.

The paragraphs should:

have a logical flow of ideas to sequentially build on the points you are making
use evidence and examples to support your argument. Academic arguments require balance and counterarguments. The relationships between your reasons are important to consider. A good essay should be easy to follow as it presents your thoughts in a logical manner.

Make sure that the essay answers the question and demonstrate how each piece of information included in the paragraphs is relevant. This should be easy for the reader to figure out. Keep the question and marking criteria open while writing your essay so that you remain focused on the task. The conclusion should include a summarised answer to the question.

- **Word count**: Assignment Essay should be 1,500 – 2000 words in length (including excluding title page, references, appendices)
- **Language**: English (U.K)
- **Cover page**: The assignment should have all relevant information about the Author including:
- title, full name, faculty, department, address, telephone number and email address on the first page of the assignment
- **Submission file type**: All assignments should be submitted as a Word document
- **Line spacing:** Submissions should be 1.5 spaced
- Spacing between paragraphs: Paragraphs should be separated from one another using a space and not indented.
- **Page margins**: Page margins should be 2.5cm all round
- **Referencing system**: Please adopt the APA referencing and list in alphabetical order.
- **Page numbers**: Start at 1, centre aligned at the bottom of the page.
- **Font**: Arial size 11 point
- **Spacing after punctuation**: a single space should be used after a full stop, comma, colon or semi-colon.
- **Quotation marks**: Use single quotation marks for quoted material within the text; double quotation marks should only be used for quotes within quotes.
- **Presentation of numbers**: Zero to nine should be written, while numbers from 10 onwards should be written as figures, unless the sentence begins with a number of 10 or over. However, use numerals for measurements (e.g. 9 cm) and ages (e.g. 9 years old). If using decimal figures, please use two decimal places.
- **Presentation of dates and time**: Set out dates as follows: 9 July 1990. When referring to a time period e.g. 1990s – don't spell it out. When referring to a century, spell it out, e.g. nineteenth century (not 19 century). Use the 12-hour clock for time e.g. 3pm or 5:45am and refer to 12 noon or 12 midnights.
- **Acronyms and Initials**: The first time you use an acronym or initials; you need to write the title or name in full followed by its acronym/initials. For example, World Health Organisation (WHO) – do this without full stops e.g. W.H.O. After that, you can just use the acronym. 7 Formatting Non –Textual Material
- **Formatting and inserting non-textual material:** Tables, graphs, maps, images etc. should be sized accordingly, centre formatted and contained in the correct place in the text. For example, insert a line-space, insert your material and type a caption beneath the material (font: Arial, 11 point), insert another line and continue writing the manuscript text.
- **Images**: Images are best as a JPEG format so that it can be resized as needed.

Oral Presentation Template for Projects

Name of presenter(s) and Roll Number(s)

BSc XXXXX

Module Title

Table of Content

- Outline your headings and subheading here.
- Minimum font size – 28
- You are free to use other font styles although it is advisable to use:
  - Arial
  - Times Roman
  - Calibri
  - Cambria
- Be consistent with your font style and size

Background

- Provide sufficient background to acquaint the audience with the problem being studied.
- Where appropriate, show the chemical structure or reaction under investigation.
- Please use key words and main ideas.
- Avoid lengthy sentences.

Materials and Methods

- Describe the general design including the independent and dependent variables being studied. If the design is complicated, show a flow chart.
- Briefly outline methods; describe analytical measurements and explain the basics of what they measure using reactions or flow diagrams where appropriate.

Results

- Describe results, preferably using figures.
- Tables and figures must have complete titles and axes/column labels with units, and variables must be identified.
- Do not expect the audience to remember what a code stands for through a series of overheads.

Discussion

- Interpret your results based on results from the literature or based on reasoned scientific explanations.
- You must cite at least one literature reference from an original research article during your oral presentation.
- Summarise the key findings.

Conclusion

- Summarise key points.
- Do not introduce new concepts or ideas here.

References

- APA style references

- Alamu, O. J., Nwaokocha, C. N., & Adunola, O. (2010). Design and construction of a domestic passive solar food dryer. *Leonardo Journal of Sciences*, (16), 71-82.

- Farid, M. M. (Ed.). (2010). *Mathematical modeling of food processing*. CRC Press.

School of Applied Sciences and Mathematics

Food Science and Technology

Name of student

Title of Project

Supervisor's Name

Introduction

Include literature review here

Informative pictures, graphs and tables are to be used, in addition to the descriptive texts

Aims and Objectives

List the aims and objectives in bullet points

Methodology

Briefly list or explain the tests/research conducted

Results

Implication/importance/consequences/application of research outcomes, Limitation(s), Advantages, Disadvantages, Case study

Informative pictures, graphs and tables are to be used, in addition to the descriptive texts

Conclusion

Highlight your main results.

Future Work

What can be improved further

References

APA style referencing

Acknowledgements

UNITS CONVERSION TABLES

Overview

These conversion tables are provided for your reference.

Units Conversion Tables

Table 1: Multiples and Submultiples of SI units

Prefix	Symbol	Multiplying Factor	
exa	E	10^{18}	1 000 000 000 000 000 000
peta	P	10^{15}	1 000 000 000 000 000
tera	T	10^{12}	1 000 000 000 000
giga	G	10^{9}	1 000 000 000
mega	M	10^{6}	1 000 000
kilo	k	10^{3}	1 000
hecto*	h	10^{2}	100
deca*	da	10	10
deci*	d	10^{-1}	0.1
centi	c	10^{-2}	0.01
milli	m	10^{-3}	0.001
micro	u	10^{-6}	0.000 001
nano	n	10^{-9}	0.000 000 001
pico	p	10^{-12}	0.000 000 000 001
femto	f	10^{-15}	0.000 000 000 000 001
atto	a	10^{-18}	0.000 000 000 000 000 001

* these prefixes are not normally used

Table 2: Length Units

Millimeters	Centimeters	Meters	Kilometers	Inches	Feet	Yards	Miles
mm	cm	m	km	in	ft	yd	mi
1	0.1	0.001	0.000001	0.03937	0.003281	0.001094	6.21e-07
10	1	0.01	0.00001	0.393701	0.032808	0.010936	0.000006
1000	100	1	0.001	39.37008	3.28084	1.093613	0.000621
1000000	100000	1000	1	39370.08	3280.84	1093.613	0.621371
25.4	2.54	0.0254	0.000025	1	0.083333	0.027778	0.000016
304.8	30.48	0.3048	0.000305	12	1	0.333333	0.000189
914.4	91.44	0.9144	0.000914	36	3	1	0.000568
1609344	160934.4	1609.344	1.609344	63360	5280	1760	1

Table 3: Area Units

Millimeter square	Centimeter square	Meter square	Inch square	Foot square	Yard square
mm^2	cm^2	m^2	in^2	ft^2	yd^2
1	0.01	0.000001	0.00155	0.000011	0.000001
100	1	0.0001	0.155	0.001076	0.00012
1000000	10000	1	1550.003	10.76391	1.19599
645.16	6.4516	0.000645	1	0.006944	0.000772
92903	929.0304	0.092903	144	1	0.111111
836127	8361.274	0.836127	1296	9	1

Table 4: Volume Units

Centimeter cube	Meter cube	Liter	Inch cube	Foot cube	US gallons	Imperial gallons	US barrel (oil)
cm^3	m^3	ltr	in^3	ft^3	US gal	Imp. gal	US brl
1	0.000001	0.001	0.061024	0.000035	0.000264	0.00022	0.000006
1000000	1	1000	61024	35	264	220	6.29
1000	0.001	1	61	0.035	0.264201	0.22	0.00629
16.4	0.000016	0.016387	1	0.000579	0.004329	0.003605	0.000103
28317	0.028317	28.31685	1728	1	7.481333	6.229712	0.178127
3785	0.003785	3.79	231	0.13	1	0.832701	0.02381
4545	0.004545	4.55	277	0.16	1.20	1	0.028593
158970	0.15897	159	9701	6	42	35	1

Table 5: Mass Units

Grams	Kilograms	Metric tonnes	Short ton	Long ton	Pounds	Ounces
g	kg	tonne	shton	Lton	lb	oz
1	0.001	0.000001	0.000001	9.84e-07	0.002205	0.035273
1000	1	0.001	0.001102	0.000984	2.204586	35.27337
1000000	1000	1	1.102293	0.984252	2204.586	35273.37
907200	907.2	0.9072	1	0.892913	2000	32000
1016000	1016	1.016	1.119929	1	2239.859	35837.74
453.6	0.4536	0.000454	0.0005	0.000446	1	16
28	0.02835	0.000028	0.000031	0.000028	0.0625	1

Table 6: Density Units

Gram/milliliter	Kilogram/meter cube	Pound/foot cube	Pound/inch cube
g/ml	kg/m^3	lb/ft^3	lb/in^3
1	1000	62.42197	0.036127
0.001	1	0.062422	0.000036
0.01602	16.02	1	0.000579
27.68	27680	1727.84	1

Table 7: Volumetric Liquid Flow Units

Liter/second	Liter/minute	Meter cube/hour	Foot cube/minute	Foot cube/hour	US gallons/minute	US barrels (oil)/day
L/sec	L/min	M^3/hr	ft^3/min	ft^3/hr	gal/min	US brl/d
1	60	3.6	2.119093	127.1197	15.85037	543.4783
0.016666	1	0.06	0.035317	2.118577	0.264162	9.057609
0.277778	16.6667	1	0.588637	35.31102	4.40288	150.9661
0.4719	28.31513	1.69884	1	60	7.479791	256.4674
0.007867	0.472015	0.02832	0.01667	1	0.124689	4.275326
0.06309	3.785551	0.227124	0.133694	8.019983	1	34.28804
0.00184	0.110404	0.006624	0.003899	0.2339	0.029165	1

Table 8: Volumetric Gas Flow Units

Normal meter cube/hour	Standard cubic feet/hour	Standard cubic feet/minute
Nm^3/hr	scfh	scfm
1	35.31073	0.588582
0.02832	1	0.016669
1.699	59.99294	1

Table 9: Mass Flow Units

Kilogram/hour	Pound/hour	Kilogram/second	Ton/hour
kg/h	lb/hour	kg/s	t/h
1	2.204586	0.000278	0.001
0.4536	1	0.000126	0.000454
3600	7936.508	1	3.6
1000	2204.586	0.277778	1

Table 10: High Pressure Units

Bar	Pound/square inch	Kilopascal	Megapascal	Kilogram force/ centimeter square	Millimeter of mercury	Atmospheres
bar	psi	kPa	MPa	kgf/cm^2	mm Hg	atm
1	14.50326	100	0.1	1.01968	750.0188	0.987167
0.06895	1	6.895	0.006895	0.070307	51.71379	0.068065
0.01	0.1450	1	0.001	0.01020	7.5002	0.00987
10	145.03	1000	1	10.197	7500.2	9.8717
0.9807	14.22335	98.07	0.09807	1	735.5434	0.968115
0.001333	0.019337	0.13333	0.000133	0.00136	1	0.001316
1.013	14.69181	101.3	0.1013	1.032936	759.769	1

Table 11: Low Pressure Units

Meter of water	Foot of water	Centimeter of mercury	Inches of mercury	Inches of water	Pascal
mH_2O	ftH_2O	cmHg	inHg	inH_2O	Pa
1	3.280696	7.356339	2.896043	39.36572	9806
0.304813	1	2.242311	0.882753	11.9992	2989
0.135937	0.445969	1	0.39368	5.351265	1333
0.345299	1.13282	2.540135	1	13.59293	3386
0.025403	0.083339	0.186872	0.073568	1	249.1
0.000102	0.000335	0.00075	0.000295	0.004014	1

Table 12: Speed Units

Meter/second	Meter/minute	Kilometer/hour	Foot/second	Foot/minute	Miles/hour
m/s	m/min	km/h	ft/s	ft/min	mi/h
1	59.988	3.599712	3.28084	196.8504	2.237136
0.01667	1	0.060007	0.054692	3.281496	0.037293
0.2778	16.66467	1	0.911417	54.68504	0.621477
0.3048	18.28434	1.097192	1	60	0.681879
0.00508	0.304739	0.018287	0.016667	1	0.011365
0.447	26.81464	1.609071	1.466535	87.99213	1

Table 13: Torque Units

Newton meter	Kilogram force meter	Foot pound	Inch pound
Nm	kgfm	ftlb	inlb
1	0.101972	0.737561	8.850732
9.80665	1	7.233003	86.79603
1.35582	0.138255	1	12
0.112985	0.011521	0.083333	1

Table 14: Dynamic Viscosity Units

Centipoise*	Poise	Pound/foot·second
cp	poise	lb/(ft·s)
1	0.01	0.000672
100	1	0.067197
1488.16	14.8816	1

Table 15: Kinematic Viscosity Units

Centistoke*	Stoke	Foot square/second	meter square/second
cs	St	ft^2/s	m^2/s
1	0.01	0.000011	0.000001
100	1	0.001076	0.0001
92903	929.03	1	0.092903
1000000	10000	10.76392	1

*note: centistokes x specific gravity = centipoise

Table 16: Temperature Conversion Formulas

Degree Celsius (°C)	(°F - 32) x 5/9
	(K - 273.15)
Degree Fahrenheit (°F)	(°C x 9/5) + 32
	(1.8 x K) - 459.67
Kelvin (K)	(°C + 273.15)
	(°F + 459.67) ÷ 1.8

November 2007

Generative Artificial Intelligence (GenAI) Guidance for UTB students: Usage in Module Assessments

Generative AI, which produces text, images, videos or other content through Large Language Models, is increasingly pervasive and will have profound impacts on education and employment. Notable current examples include GPT-4, ChatGPT, Microsoft Copilot, Google Gemini, Claude, Dall-E, etc.

Universiti Teknologi Brunei encourages students and staff to embrace the usage of generative AI as a useful productivity tool. However, this must not be at the expense of academic integrity, which is of utmost importance to all stakeholders including employers, graduates, students and staff.

Your lecturer will specify for each coursework item the permitted level of GenAI usage according to the following example:

5	**Full AI**	**You may use AI throughout your assessment to support your own work and do not have to specify which content is AI-generated.** AI can be used as a "co-pilot" in order to meet the requirements of the assessment. You must state the AI tool(s) that you used.
4	**AI Task Completion, Human Evaluation**	**You will use AI to complete specified tasks in your assessment. Any AI-created content must be cited.** AI is used to complete certain elements of the task, and you will provide discussion or commentary on the AI-generated content.
3	**AI-Assisted Editing**	**AI can be used, but your original work with no AI content must be provided in an appendix.** AI can be used to make improvements to the clarity or quality of your created work to improve the final output, but no new content can be created using AI.
2	**AI-Assisted Idea Generation and Structuring**	**No AI content is allowed in the final submission.** However, AI can be used in the assessment for brainstorming, creating structures, and generating ideas for improving work.
1	**No AI ***	**AI must not be used at any point during the assessment.** This coursework is to be completed entirely without AI assistance. You are to rely solely on your knowledge, understanding, and skills.

Adapted from the Artificial Intelligence Assessment Scale (AIAS) by: Mike Perkins, Leon Furze, Jasper Roe, Jason MacVaugh (2024) The Artificial Intelligence Assessment Scale (AIAS): A Framework for Ethical Integration of Generative AI in Educational Assessment, *Journal of University Teaching and Learning Practice*, 21(06). doi:10.53761/q3azde36.

* For coursework in which GenAI use is forbidden, you are required to share with your lecturer your working draft files in OneDrive (or Google Docs or similar) which shows the document's version history with timestamps. You must only work on the shared draft file at all times i.e. you must be online and signed into your UTB-provided Microsoft Office 365 account when working on the Word file (or your Google account for Google Docs). Do not copy content into it from another working file.

Where no policy on GenAI usage for a coursework item has been specified by the lecturer, any use of GenAI for content generation is the equivalent of getting assistance from third parties including the internet, books, or another person. Hence, the exact assistance obtained from GenAI must be explained, declared and referenced properly, to avoid the academic offence of plagiarism.

If there is any uncertainty over usage of GenAI in your work, you **must** ask your module lecturer for clarification. Failure to abide with the above requirements is considered an academic offence.