Lecture Summary Template - Guide

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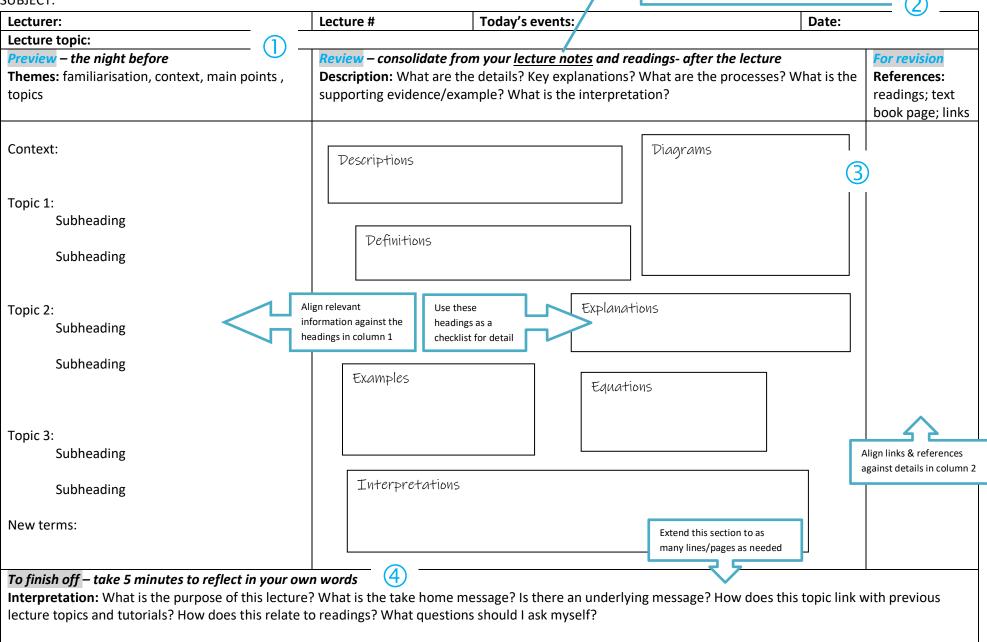
JCU

Make your notes separately as dot points in either in a notebook, a text document, or on the lecture slides ②

SUBJECT:

Lecturer:	Lecture #	Today's events:	Date:
Lecture topic:			

① **Preview** – *the night before*
Themes: familiarisation, context, main points, topics

Review – *consolidate from your <u>lecture notes</u> and readings- after the lecture*
Description: What are the details? Key explanations? What are the processes? What is the supporting evidence/example? What is the interpretation?

For revision
References: readings; text book page; links

③

Context:

Topic 1:
  Subheading

  Subheading

Descriptions

Diagrams

Definitions

Topic 2:
  Subheading

  Subheading

Align relevant information against the headings in column 1

Use these headings as a checklist for detail

Explanations

Examples

Equations

Topic 3:
  Subheading

  Subheading

New terms:

Interpretations

Align links & references against details in column 2

Extend this section to as many lines/pages as needed

④ **To finish off** – *take 5 minutes to reflect in your own words*
Interpretation: What is the purpose of this lecture? What is the take home message? Is there an underlying message? How does this topic link with previous lecture topics and tutorials? How does this relate to readings? What questions should I ask myself?

Example of part of a lecture. The full lecture extends over several pages

SUBJECT: BC3203 Bioinformatics

Lecturer: Ira Cooke	Lecture # 7	Today's events: housemate's birthday	Date: 16/09/2019

Lecture topic: Statistical analysis of microbial data

Preview – the night before	_Review – consolidate from your lecture notes and readings- after the lecture_	_For revision_
Themes: familiarisation, context, main points , topics	**Description:** What are the details? Key explanations? What are the processes? What is the supporting evidence/example? What is the interpretation?	**References:** readings; text book page; links
Topic 1: Diversity metrics in microbial ecology • Alpha and beta diversity Topic 2: Measures of diversity can be: • Qualitative & quantitative • Phylogenetic & non-phylogenetic Topic 3: • Methods to interpret diversity metrics - Hierarchical clustering (see reading section)	Alpha diversity: diversity **within** a sample - Used for individual samples Beta diversity: diversity **between** samples - Used for multiple samples - Are **distances** Diversity metrics can be: Qualitative: - Used for presence/absence Quantitative: - Account for abundance Phylogenetic: - Use evolutionary relationships Non-phylogenetic: - Are all treated equally Alpha diversity measures: - ASV (number of taxa) count - Shannon's Diversity index - Pielou's Evenness - Faith's Phylogenetic Diversity - Beta diversity measures: - Jaccard distance - Bray-Curtis distance - Unweighted UniFrac - Weighted UniFrac	Read clustering chapter in Modern Statistics for Modern Biology for next week: http://web.stanford.edu/class/bios221/book/Chap-Clustering.html

To finish off – _take 5 minutes to reflect in your own words_

Interpretation: What is the purpose of this lecture? What is the take home message? Is there an underlying message? How does this topic link with previous lecture topics and tutorials? How does this relate to readings? What questions should I ask myself?

Know the different alpha and beta diversity measures (when are they used? How are they classified? What are their limitations? How are they calculated?)
Builds on to how to interpret diversity metrics using clustering and multidimensional scaling