ANAT2341

Embryology

Course Outline

Term 3, 2022

School of Medical Sciences

Faculty of Medicine & Health

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1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Dr. Reza Shirazi	reza.shirazi@unsw.edu.au	By appointment	Room 215, Level 2, Wallace Wurth Building
Lecturer	Ms. Joyce El-Haddad	j.el-haddad@unsw.edu.au	By appointment	Room 206, Level 2, Wallace Wurth Building

2. Course information

Units of credit: six units-of-credit (6 UOC)

Pre-requisite(s): ANAT2241 or BABS2202

Teaching times and locations:

https://timetable.unsw.edu.au/2022/ANAT2341.html

2.1 Course summary

ANAT2341/Embryology is a (6 UOC) course for Medical Sciences, Science, and other students. This course provides students with an overview of human development including a grounded understanding of early human embryogenesis, and the origin and development of the major organs and organ systems of the body. These concepts are applied to the contexts of major human birth abnormalities, and to stem cell biology and regenerative medicine. The course will also expose students to evidence-based developmental and/or stem cell biology research for human health that occurs within Australia. (https://www.handbook.unsw.edu.au/undergraduate/courses/2022/ANAT2341/)

2.2 Course aims

The aim of this course is to provide students with a comprehensive understanding of the human development and organogenesis. The knowledge of developmental biology attained in this course can be integrated by students with other subdisciplines of anatomy (macroscopic or gross anatomy, and microscopic anatomy or histology) and the related biomedical science disciplines such as Pathology and Physiology. The main aims of the course are to:

1. Describe human development and organogenesis, stem cell biology and regeneration, and how major congenital birth abnormalities arise.
2. Apply basic practical laboratory skills and work with embryo and regeneration models, annotate embryonic structures, and define developmental and regenerative stages.
3. Communicate the contents of primary research articles in the field of stem cell research effectively and appropriately to an audience.
4. Work effectively within a small team to complete academic tasks.

5. Demonstrate critical thinking and problem-solving skills in diverse contexts.
6. Self-manage and work independently with an ability to take responsibility for their own learning, and an appreciation of the value of learning.

2.3 Course learning outcomes (CLO)

At the successful completion of this course you (the student) should be able to:

7. Describe human development and organogenesis, stem cell biology and regeneration, and how major congenital birth abnormalities arise.
8. Apply basic practical laboratory skills and work with embryo and regeneration models, annotate embryonic structures, and define developmental and regenerative stages.
9. Communicate the contents of primary research articles in the field of stem cell research effectively and appropriately to an audience.
10. Work effectively within a small team to complete academic tasks.
11. Demonstrate critical thinking and problem-solving skills in diverse contexts.
12. Self-manage and work independently with an ability to take responsibility for their own learning, and an appreciation of the value of learning.

2.4 Relationship between course learning outcomes and assessments

Course Learning Outcome (CLO)	**LO Statement**	**Related Tasks & Assessment**
CLO 1	Describe human development and organogenesis, stem cell biology and regeneration, and how major congenital birth abnormalities arise	Continuous Assessment Midterm Assessment Group Project Assessment Final Exam
CLO 2	Apply basic practical laboratory skills and work with embryo and regeneration models, annotate embryonic structures, and define developmental and regenerative stages	Continuous Assessment Midterm Assessment Final Exam
CLO 3	Communicate the contents of primary research articles in the field of stem cell research effectively and appropriately to an audience	Group Project Assessment

CLO 4	Work effectively within a small team to complete academic tasks	Group Project Assessment
CLO 5	Demonstrate critical thinking and problem-solving skills in diverse contexts	Continuous Assessment Midterm Assessment Group Project Assessment Final Exam
CLO 6	Self-manage and work independently with an ability to take responsibility for their own learning, and an appreciation of the value of learning	Continuous Assessment Midterm Assessment

3. Strategies and approaches to learning

3.1 Learning and teaching activities

Student learning and engagement with the content of the course underpins all learning activities.

Lectures: Lectures are designed to provide comprehensive knowledge, conceptual information and an overview of the content that will be the focus of the week's practical session. It is advisable that students attend all lectures to achieve better learning outcomes and academic success. All lectures will be recorded and posted on ECHO360. In some cases, there is pre-class work (some of which is online) to assist in preparation for practicals and/or post-class work to help consolidate content covered.

Laboratory/Practical classes: The laboratory classes complement the lectures and involve active learning in an online setting. In the online laboratory sessions, you will look at embryological sections related to each lecture topic per week. Every student is required to be involved in inquiry and take an active participation in the learning process. It is strongly advised that students come well prepared to make the best use of their time in the laboratory.

Self-directed learning activities: The purpose of these weekly activities is to help students interact with the content covered. During these activities students will identify the developing structures and their features. Students are also required to read the chapters as indicated by convenors where necessary from the prescribed textbook. You are encouraged to use the online discussion forums for questions and discussion related to the course content. Please engage in this discussion by answering and commenting on questions and queries from your peers. Teaching staff will respond to unanswered questions on TEAMS or via email.

3.2 Expectations of students

Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities. The formal learning activities total approximately 50 hours throughout the term and students are expected (and strongly recommended) to do at least the same number of hours of additional study.

It is expected that for every timetabled hour of learning activity, you will need at least an hour of additional self-directed study. To master the course content, it is expected that you will engage with

the course for at least one additional untimetabled hour per week. It is expected that you will attend all lectures and practical sessions. Each of these sessions are interactive and active participation is recommended. Laboratory sessions are collaborative learning experiences and is framed on being accountable for your learning and that of your peers. This expectation will be clearly outlined in the course learning management system (Moodle). The course utilises social learning platforms such as Microsoft Teams. It is expected that you will engage with these platforms in a respectful and professional manner. If you have any concerns about this, please contact the convenor as soon as possible.

4. Course schedule and structure

This course consists of 36 hours of class contact hours. You are expected to take an additional 50 hours of non-class contact hours to complete assessments, readings, and exam preparation.

Week Classes Date	Lecture 1		Lecture 2		Practical sessions and group essay (deadlines in red)
	Topic	Delivered by	Topic	Delivered by	
Week 1 **12 Sep 2022**	Introduction to the Course & Introduction to Human Development	Reza Shirazi	Gametogenesis & Cell Division	Reza Shirazi	Student introductions Clarification of course learning activities and assessments Practical session learning activities
Week 2 **19 Sep 2022**	Fertilization & Preimplantation Development	Reza Shirazi	Implantation & Gastrulation	Reza Shirazi	Practical session learning activities Select laboratory for group essay and consult with Dr Reza Shirazi per email for approval **by 23 September**
Week 3 **26 Sep 2022**	Ectoderm & Neural crest development & Mesoderm	Reza Shirazi	Endoderm & Body cavities	Reza Shirazi	Practical session learning activities
Week 4 **3 Oct 2022**	Placentation & Birth Defects & Prenatal Diagnosis	Reza Shirazi (Pre-recorded lecture)	Musculoskeletal system	Reza Shirazi (Pre-recorded lecture)	Practical session learning activities Send questionnaire per email to Dr Reza Shirazi by email for approval **by 7 October**
Week 5 **10 Oct 2022**	Cardiovascular system (1)	Reza Shirazi	Cardiovascular system (2)	Reza Shirazi	Practical session learning activities **Midterm exam**: assesses lecture content of course weeks 1-4 Interview Developmental Biology Laboratory Head
Week 6 **17 October**	**Write group essay**	**---**	**Write group essay**	**---**	**Write group essay**
Week 7 **24 Oct 2022**	Respiratory systems & Integumentary system	Reza Shirazi	Digestive system	Joyce El-Haddad	Practical session learning activities Submission of group essay draft for peer review by **28 October**
Week 8 **31 Oct 2022**	Urinary system	Joyce El-Haddad	Reproductive system	Reza Shirazi	Practical session learning activities Submission of peer reviews to groups and Dr Reza Shirazi **by 4 November**
Week 9			Nervous system		Practical session learning activities

7 Nov 2022	Cranial development	Reza Shirazi		Reza Shirazi	Final submission of group essay to Dr Reza Shirazi **by 11 November**
Week 10 **14 Nov 2022**	Ear & Eye	Reza Shirazi	Fetal Development & Revision	Reza Shirazi	Practical session learning activities Group essay presentations Submit individual reflection on assessment **by 18 November**

Exam Period: 25 November – 8 December
Supplementary Exam Period: 9 January – 13 January

5. Assessment

5.1 Assessment tasks

Assessment task	Type	Weight	Mark	Due date and time
Continuous Assessment	Test	25%	MCQs	Weekly
Midterm Assessment	Examination	25%	MCQs/SAQs	Week 5
Group Project Assessment	Essay	25%	Group Essay (15%) Peer group essay review (5%) Oral group presentation (mandatory) Personal reflection (5%)	Week 2-10
Final Exam	Examination	25%	MCQs/SAQs	UNSW Final exams period

Continuous Assessment (CLO1, 2, 5, 6):

Weekly online multiple-choice question (MCQ) quizzes will be completed prior to the practical session. These quizzes consist of 5 MCQs which assess student learning of the lecture and practical session content of the preceding week. For instance, the week 2 quiz will assess week 1 lecture and practical session content, etc. The quizzes' examinable material is summarized in weekly lecture and practical slides and notes as well as in the UNSW embryology webpages accessed via links on Page 7 of this course manual, and on Moodle. This assessment will provide students with regular feedback on their content mastery. The assessment is conducted online on Moodle. The students' 5 best quiz results will contribute to 25% of the overall course grade.

Midterm Assessment (CLO1,2, 5, 6):

The mid-term assessment will consist of MCQs and short answer questions (SAQs), which will assess students' learning of the lecture content of course weeks 1-4. Examinable material is summarized in weekly lecture and practical slides and notes as well as in the UNSW embryology webpages that you can access via the hyperlinks in the Course Program on Page 7 of this course manual, and that will

also be available on Moodle. The assessment is conducted online on Moodle. This assessment will contribute towards 25% of your overall course grade.

Group Project Assessment (CLO1, 3, 4, 5):

This assessment will be completed in groups of approximately four students and will run throughout the term. It is a scaffolded task that consist of the following four components:

- 2500-word group essay (counts towards 15% of course grade)
- Peer review of another group's essay (5%)
- Oral group presentation (mandatory)
- Personal reflection and feedback on peer contribution (counts towards 5% of course grade)

This assessment will contribute towards 25% of your overall course grade.

Students will be allocated to small groups of three to five to investigate a developmental or stem cell research laboratory in Australia (see list below). Student groups are required to conduct a 60-minute interview as a group with the Laboratory Head and investigate the lab's research output by reading their primary research articles, investigating digital coverage of the research in news media and on websites, etc. to identify the impact of the research for human health.

Group Essay (15%)

Student groups will write a 2500-word essay outlining the embryological basis of the research (the embryological/developmental processes involved), the research focus and most important discoveries of the laboratory in that area. The group essay should also comment on the possible (future) impact of the lab's research on human health. The marking rubrics detailing the criteria and standards are detailed in this manual and will also be provided on Moodle. A list of references must be provided using APA referencing. The essay should be submitted via Turnitin within Moodle.

The group essay will be submitted via Moodle together with the interview transcript and/or recording file. Each group will be required deliver a short presentation on the main points of their essay.

Peer Review of essays (5%)

A close to final draft of the group essay will be peer-reviewed by students of other groups. You will submit your essay to four other students as advised by Dr Reza Shirazi for peer review.

Oral presentation (mandatory)

Students should prepare an oral presentation on group essay in practical sessions.

Personal Reflection (5%)

Individually, each student will submit a one-page personal reflection on how this assessment contributed to their learning in light of the course's learning objectives and on their peer's contribution to the group task.

The marking rubrics detailing the criteria and standards for each of the components of the group project are detailed on Pages 13-19 in this manual.

Developmental biology laboratory heads

The table below shows the researcher names, email addresses and links to the developmental biology laboratory web pages. These researchers have all agreed to make themselves available to talk with the embryology students for an hour in week 5 of the course (11-15 October 2021).

Other alternative (international) labs or written assignments may be negotiated. Please contact Dr Reza Shirazi to discuss.

Researcher name	Email	Lab URL
John Aitken	john.aitken@newcastle.edu.au	Aitken Laboratory
Vincent Harley	vincent.harley@hudson.org.au	Harley Laboratory
Richard Harvey	r.harvey@victorchang.edu.au	Harvey Laboratory
Michael Piper	m.piper@uq.edu.au	Piper Laboratory
Marcus Heisler	marcus.heisler@sydney.edu.au	Heisler Laboratory
Dagmar Wilhelm	dagmar.wilhelm@unimelb.edu.au	Wilhelm laboratory
Jo Bowles	jo.bowles@uq.edu.au	Bowles Laboratory
David Simmons	d.simmons@uq.edu.au	Simmons Laboratory
Sally Dunwoodie	s.dunwoodie@victorchang.edu.au	Dunwoodie Laboratory
Alex Combes	alex.combes@monash.edu	Combes Laboratory
Edwina McGlinn	edwina.mcglinn@monash.edu	McGlinn Laboratory
Peter Currie	peter.currie@monash.edu	Currie Laboratory
Kelly smith	kelly.smith1@unimelb.edu.au	Smith Laboratory

Suggested task and timeline for group project:

Please note firm deadlines are indicated in **red**

Week	Done (Y/N)	Tasks **Please note firm deadlines are indicated in red**
1-2		Select Laboratory from list (please note we cannot have two groups covering the same lab, so labs go on a first come first serve basis). Describe the Lab's research focus in 2-3 sentences. Submit this on Moodle for approval by **23 September via Moodle** Contact lab head to set up an appointment for week 5 of the course (do this well in advance, so they can accommodate you). Ask for their permission to record the interview.
3-4		Develop an overview of the laboratory's research, and its most significant findings Develop a list of questions (our recommendation is a list of 6 questions which would be a good guide for an hour-long interview) for the lab head Submit the list of questions via Moodle to the course convener for consultation by **7 October** Send the laboratory head a reminder of the date and time of your interview next week

5		Interview the laboratory head (in person, per telephone, or online via Teams, Skype etc). Ask for their permission to record the interview!
6-7		Write the group essay, using the marking rubric as a guide (see Pages 13-19 of the course manual) Submit essay to 4 other students as advised by Dr Reza Shirazi for peer review by **28 October**
8		Review an assigned peer-group's essay using the criteria and standards defined in the marking rubric (see Pages 13-19 of the course manual) Submit peer review on Moodle to the relevant group, cc Dr Reza Shirazi by **4 November**
9		Revise group essay based on peer review feedback Final submission of essay and of interview transcript/recording on Moodle by **11 November**
10		Group essay presentations in practical sessions Submission of a 1-page personal reflection on how the assessment contributed to their learning in light of the course learning objectives by **18 November**

Final Exam (CLO1, 2, 5, 6):

The final exam will consist of MCQs and SAQs, which will assess students' learning of the lecture content of course weeks 5-10. Examinable material is summarized in weekly lecture and practical slides and notes as well as in the UNSW embryology webpages that you can access via the hyperlinks in the Course Program on Page 7 of this course manual, and that will also be available on Moodle. This assessment will contribute towards 25% of your overall course grade.

Further information

UNSW grading system: https://student.unsw.edu.au/grades

UNSW assessment policy: https://student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

GROUP ESSAY ASSESSMENT MARKING RUBRICS: CRITERIA AND STANDARDS

Group Essay Project: Criteria and Performance Standards (1/3)					
Criteria	**Performance standards**				
	<50%	50-64%	65-74%	75-84%	85-100%
Understanding of developmental processes and molecular mechanisms	Poor or no description of background	Some accurate and effective description of background	Detailed and effective description of background that provides	Focused, mostly accurate, and detailed overview of	Exemplary, reflective, consistently focused and comprehensive

relevant to the research of the laboratory (CLO1,2,4,6) **10%**		that provides context to the research topic of the lab. Ample redundant information.	context to the research topic of the lab. Some redundant information.	developmental concepts relevant to the research of the laboratory. Minor redundant information.	overview of developmental concepts relevant to the research of the laboratory. No redundant information.
Analysis and presentation of the main discoveries of the lab (CLO1-6) **30%**	Poor or no description of the lab's main discoveries	Some accurate and effective description of the main discoveries of the lab. Ample redundant information.	Mostly accurate and effective description of the main discoveries of the lab. Some redundant information.	Accurate and effective description of the main discoveries of the lab. Minor redundant information.	Exemplary, reflective, accurate and highly effective description of the main discoveries of the lab. No redundant information.
Evaluation of the (future) impact of the lab's research on human health (CLO1-6) **30%**	Poor or no evaluation of the lab's impact on human health	Some accurate and effective evaluation of the lab's (future) impact on human health. Ample redundant information.	Mostly accurate and effective evaluation of the lab's (future) impact on human health. Some redundant information.	Accurate and effective evaluation of the lab's (future) impact on human health, supported by evidence. Minor redundant information.	Critical, accurate and highly effective evaluation of the lab's (future) impact on human health, supported by evidence from multiple sources. No redundant information.

Group Essay Project: Criteria and Performance Standards (2/3)					
Criteria	**Performance standards**				
	<50%	50-64%	65-74%	75-84%	85-100%
Referencing style (APA 7th). Familiarity with and relevance of research literature	Literature is not accurately referenced.	Literature is not accurately referenced. References are used with citations	Some literature is not accurately referenced. References are used with	Literature is accurately referenced. Quotes and other authors' views are	Literature is accurately referenced. Quotes and other authors' views are

used to support the essay **10%**		mostly to review articles. Bibliography correctly listed in the reference list according to APA style.	citations to original research articles and review articles. Bibliography correctly listed in the reference list according to APA style.	introduced; references are effectively used with most citations to original research articles and some review articles. Bibliography correctly listed in the reference list according to APA style.	introduced with a purposeful and detailed context; all references are effectively used with citations largely to original research articles and no review articles. Bibliography correctly listed in the reference list according to APA style.
Structure and organization of the essay **10%**	Structure does not develop without logical organisation	Not clearly structured and/or unclear narrative. Convoluted statements. Focus of the essay is not very developed or maintained in all paragraphs. No final concluding statement(s).	Mostly well-structured with good narrative. Some convoluted statements. Focus of the essay is developed and maintained in all paragraphs. Some concluding final statement(s).	Well-structured with logical narrative. Headings and subsections. Topic moves from general idea to specific to lab research. Mostly concise statements. Focus of the essay is developed and maintained in all paragraphs. Compelling final concluding statement(s).	Exemplary structure with strong logical and thoughtful narrative. Clear headings and subsections. Topic moves from general idea to specific to lab research. Concise statements. Focus of the essay is highly developed and maintained in all paragraphs. Compelling concluding statement(s).

Group Essay Project: Criteria and Performance Standards (3/3)					
Criteria	**Performance standards**				
	<50%	50-64%	65-74%	75-84%	85-100%
Presentation of essay according to appropriate academic and linguistic conventions	Contains many spelling, punctuations, and grammar errors; sentence	Contains a few spelling, punctuations, and grammar errors; many jargons/slangs and	Well written for the most part, without spelling, punctuations, or grammar error but with	Well written for the most part, without spelling, punctuations, or grammar error;	Correct spelling and grammar throughout. Sentences vary in length and structure; academic tone;

10%	structures do not vary-too long and too short; does not meet the word limit	inappropriate use of words; use of contractions; does not meet the word limit	jargons and inappropriate word choices; within the word limit	appropriate words are used; within the word limit, submitted in time	adheres to the word limit; words used are intelligent and precise; effective use of transition signals

Submission of essays should occur before the deadline. Late submissions will result in a 10% deduction from the final group assessment grade.

General Comments

Lecturer recommended: /20
Date
Weighing: The group essay mark will weigh 20% towards final course grade.

NB: The ticks in the various boxes are designed to provide feedback to students; they are not given equal weight in determining the recommended grade. Depending on the nature of the assessment task, lecturers may also contextualize and/or amend these specific criteria. **The recommended grade is tentative only, subject to standardisation processes and approval by the Department of Anatomy Head of Teaching**

Peer Review of Draft Group Essay: Criteria and Performance Standards					
Criteria	**Performance standards**				
	1	2	3	4	5
Peer review	Response if off track	Feedback not effectively outlining how essay addresses the defined marking criteria and to what standards. No clear identification of shortcomings or suggestions for improvement.	Feedback outlining how essay addresses most of the defined marking criteria and to what standards. Identification of some shortcomings, and some suggestions for improvement.	Well-justified feedback accurately outlining how essay addresses all the defined marking criteria and to what standards. Correct identification of shortcomings, and adequate suggestions for improvement.	Reflective and well-justified feedback accurately outlining how essay addresses all the defined marking criteria and to what standards. Correct identification of all shortcomings, and excellent suggestions for improvement.

Active participation in peer review is mandatory for all students. Submission of peer reviews should occur before the deadline. Late submissions, and low-quality peer reviews marked 1 will result in a 10% deduction from the final group assessment grade.

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Oral Group Presentation: Criteria and Performance Standards					
Criteria	**Performance standards**				
	1	2	3	4	5
Understanding of developmental processes and molecular mechanisms relevant to the research of the laboratory (CLO1, 2, 4, 6)	Poor or no description of developmental concepts	Some accurate and effective description of background that provides context to the research topic of the lab. Ample redundant information.	Mostly accurate and effective description of background that provides context to the research topic of the lab. Some redundant information.	Focused, mostly accurate, and effective overview of developmental concepts relevant to the research of the laboratory. Minor redundant information.	Exemplary, reflective, consistently focused, accurate, and highly effective overview of developmental concepts relevant to the research of the laboratory. No redundant information.
Analysis and presentation of the main discoveries of the lab (CLO1-6)	Poor or no description of the lab's main discoveries	Some accurate and effective description of the main discoveries of the lab. Ample redundant information.	Mostly accurate and effective description of the main discoveries of the lab. Some redundant information.	Accurate and effective description of the main discoveries of the lab. Minor redundant information.	Reflective, accurate and highly effective description of the main discoveries of the lab. No redundant information.
Evaluation of the (future) impact of the lab's research on human health (CLO1-6)	Poor or no evaluation of the lab's impact on human health	Some accurate and effective evaluation of the lab's (future) impact on human health. Ample redundant information.	Mostly accurate and effective evaluation of the lab's (future) impact on human health. Some redundant information.	Accurate and effective evaluation of the lab's (future) impact on human health, supported by evidence. Minor redundant information.	Critical, accurate and highly effective evaluation of the lab's (future) impact on human health, supported by evidence from multiple sources. No redundant information.
Presentation and slide style, keeping in time, questions	Unclear presentation with redundant information	Not always very clear presentation of essay, slides with redundant information, over time, no effective or concise answers to questions.	Clear presentation of essay, slides with some redundant information, on time, not always effective or concise answers to questions.	Clear and effective presentation of essay, good slides with some redundant information, good use of time, effective and mostly concise answers to questions.	Exemplary, clear, concise and effective presentation of essay, highly effective slides without any redundant information, excellent use of time, highly effective, concise answers to questions.
Questions and engagement in discussion	Not	Little	Adequate	Good	Excellent

Active participation in group presentation is mandatory for all students. Low quality group presentations marked 1 will result in a 10% deduction from the final group assessment grade.

Personal Reflection: Criteria and Performance Standards					
Criteria	**Performance standards**				
	<50%	50-64%	65-74%	75-84%	85-100%
Personal reflection **80%**	Unclear reflection with redundant information	Reflection not effectively outlining how the group assessment helped student's learning relative to course learning objectives. No justification of assessment's weaknesses and shortcomings, no suggestions for improvement.	Reflection outlining how the group assessment helped student's learning relative to course learning objectives. Identification and some justification of assessment's weaknesses and shortcomings, and some suggestions for improvement of these.	Effective reflection on the efficacy of the group assessment in student's learning relative to course or program learning objectives. Identification and justification of assessment's weaknesses and shortcomings, and good suggestions for improvement of most of these.	Exemplary, highly effective reflection on the efficacy of the group assessment in student's learning relative to all the course and program learning objectives. Identification and strong justification of assessment's weaknesses and shortcomings, and excellent suggestions for improvement of all of these.
Presentation of reflection according to appropriate academic and linguistic conventions **10%**	Contains many spelling, punctuations, and grammar errors; sentence structures do not vary-too long and too short; does not meet the word limit	Contains a few spelling, punctuations, and grammar errors; many jargons/slangs and inappropriate use of words; use of contractions; does not meet the word limit	Well-written for the most part, without spelling, punctuations, or grammar error but with jargons and inappropriate word choices; within the word limit	Well-written for the most part, without spelling, punctuations, or grammar error; appropriate words are used; within the word limit, submitted in time	Correct spelling and grammar throughout. Sentences vary in length and structure; academic tone; adheres to the word limit; words used are intelligent and precise; effective use of transition signals
Peer contribution **10%**	Seldom cooperative. Rarely offers useful ideas. Is disruptive.	A few cooperative. Participates in some group meetings.	Sometimes cooperative. Sometimes offers useful ideas. Rarely displays positive attitude.	Usually cooperative. Usually offers useful ideas. Generally displays positive attitude.	Always cooperative. Routinely offers useful ideas. Always displays positive attitude.

Submission of personal reflection should occur before the deadline. Late submissions will result in will result in a 10% deduction of the final group assessment grade.

General Comments

Lecturer recommended: /5

Date

Weighing: The personal reflection will weigh 5% towards final course grade.

NB: The ticks in the various boxes are designed to provide feedback to students; they are not given equal weight in determining the recommended grade. Depending on the nature of the assessment task, lecturers may also contextualize and/or amend these specific criteria. **The recommended grade is tentative only, subject to standardisation processes and approval by the Department of Anatomy Head of Teaching**

5.3 Submission of assessment tasks

Late Submission

UNSW has standard late submission penalties as outlined in the UNSW Assessment Implementation Procedure, with no permitted variation. All late assignments (unless extension or exemption previously agreed) will be penalised by 5% of the maximum mark per day (including Saturday, Sunday and public holidays). For example, if an assessment task is worth 30 marks, then 1.5 marks will be lost per day (5% of 30) for each day it is late. So, if the grade earnt is 24/30 and the task is two days late the student receives a grade of 24 – 3 marks = 21 marks.

Late submission is capped at 5 days (120 hours). This means that a student cannot submit an assessment more than 5 days (120 hours) after the due date for that assessment.

Special Consideration

If you experience a short-term event beyond your control (exceptional circumstances) that impacts your performance in a particular assessment task, you can apply for Special Considerations.

You must apply for Special Consideration **before** the start of your exam or due date for your assessment, except where your circumstances of illness or misadventure stop you from doing so.

If your circumstances stop you from applying before your exam or assessment due date, you must **apply within 3 working days** of the assessment, or the period covered by your supporting documentation.

More information can be found on the Special Consideration website.

5.4. Feedback on assessment

- Continuous Assessment: Student feedback is via Moodle.
- Midterm Assessment: Feedback will be provided online at the completion of midterm exam. Additional feedback will be provided during the in-class Integration.
- Group Project Assessment: Students are provided direct feedback after the group work and marks and comments within Moodle grade book.
- Final Exam: Generalised feedback will be provided in the form of written feedback posted on Moodle.

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Please use Vancouver or APA referencing style for this course, if required at any point in the course.

Further information about referencing styles can be located at
https://student.unsw.edu.au/referencing

Academic integrity *is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect,*

responsibility, and courage.[1] *At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.*

Further information about academic integrity and ***plagiarism*** *can be located at:*

- *The Current Students site* https://student.unsw.edu.au/plagiarism*, and*
- *The ELISE training site* https://subjectguides.library.unsw.edu.au/elise

The Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct.

7. Readings and resources

The course resources will take the form of textbooks, web-based resources and journal articles. Links to resources will be provided on Moodle.

Textbooks:
There are two embryology textbooks, either of which can be used for this course, both are online accessible through UNSW Library.

1. Moore, K.L., Persaud, T.V.N. & Torchia, M.G. The developing human: clinically oriented embryology (11th ed.). Philadelphia: Saunders.
2. Schoenwolf, G.C., Bleyl, S.B., Brauer, P.R., Francis-West. Larsen's human embryology (6th ed.). Elsevier.

UNSW Embryology wiki pages:
Lectures summaries are available in the online UNSW embryology wiki pages that you can access via the hyperlinks in the Course Program on Page 10 of this course manual, and that will also be available on Moodle. Material available through links on the UNSW embryology lecture pages is provided for interest and will not be examined.

3D Atlas of Human Development:
The 3D Atlas of Human Development will be used for virtual embryo dissections. This atlas consists of 14 3D-PDF files representing Carnegie stages 7 through to 23. The compressed files are freely available through this link. Please download this 84Mb file at home before the practical sessions.

The Virtual Human Embryo:
We will use the online Virtual Human Embryo resource, which consists of histology sections of human embryos of all 23 Carnegie stages of embryonic development. The Virtual Human Embryo Project generated nearly 34 gigabytes of embryonic imagery. This $3.2 million, 11-year initiative tapped the world's largest collection of human embryos to identify, digitize, and catalogue some of the best serial sections of normal human embryos ever seen. These images were then reviewed and labeled by one of the leading embryologists of the last half century and are now available to researchers and educators everywhere.

[1] International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

8. Administrative matters

Student enquiries should be submitted via student portal https://portal.insight.unsw.edu.au/web-forms/

9. Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au/
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- *Student Wellbeing and Health* https://www.student.unsw.edu.au/wellbeing
- UNSW IT Service Centre: https://www.myit.unsw.edu.au/services/students
- *UNSW Student Life Hub:* https://student.unsw.edu.au/hub#main-content
- *Student Support and Development:* https://student.unsw.edu.au/support
- *IT, eLearning and Apps:* https://student.unsw.edu.au/elearning
- *Student Support and Success Advisors:* https://student.unsw.edu.au/advisors
- *Equitable Learning Services (Formerly Disability Support Unit):* https://student.unsw.edu.au/els
- *Transitioning to Online Learning* https://www.covid19studyonline.unsw.edu.au/
- *Guide to Online Study* https://student.unsw.edu.au/online-study

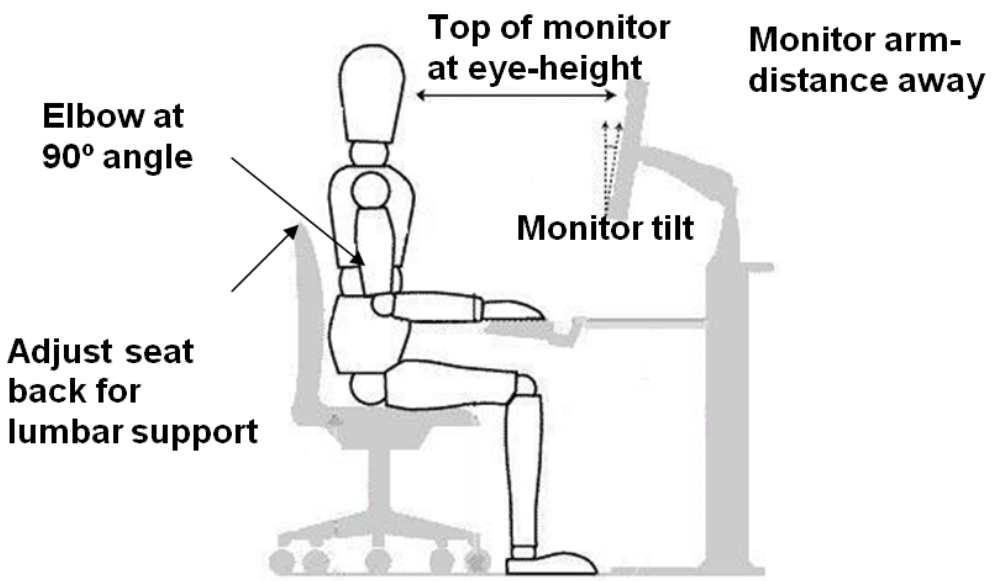
10. Student Risk Assessment

HEALTH & SAFETY GUIDELINES

Generic safety rules for UNSW can be found at: SAFETY.UNSW.EDU.AU and for the School of Medical Sciences at MEDICALSCIENCES.MED.UNSW.EDU.AU/STAFF/HEALTH-SAFETY
Additional safety information will be provided for classes at other locations.

ScienceTeaching Laboratory Student Risk Assessment	UNSW SYDNEY	ANAT2341 Wallace Wurth East G6-7 Term 3, 2020.

Workstation set-up		
Ergonomics	Musculoskeletal pain.	Correct workstation set-up.
Electrical	Shock/fire	Check electrical equipment in good condition before use. All electrical equipment tested and tagged.



Emergency Procedures
In the event of an alarm, follow the instructions of the demonstrator. The initial sound is advising you to prepare for evacuation and during this time start packing up your things. The second sound gives instruction to leave. The Wallace Wurth assembly point is the lawn in front of the Chancellery. In the event of an injury, inform the demonstrator. First aiders contact details and Kit locations are on display by the lifts.
Clean up and waste disposal
No apparatus or chemicals used in these practicals.
Declaration