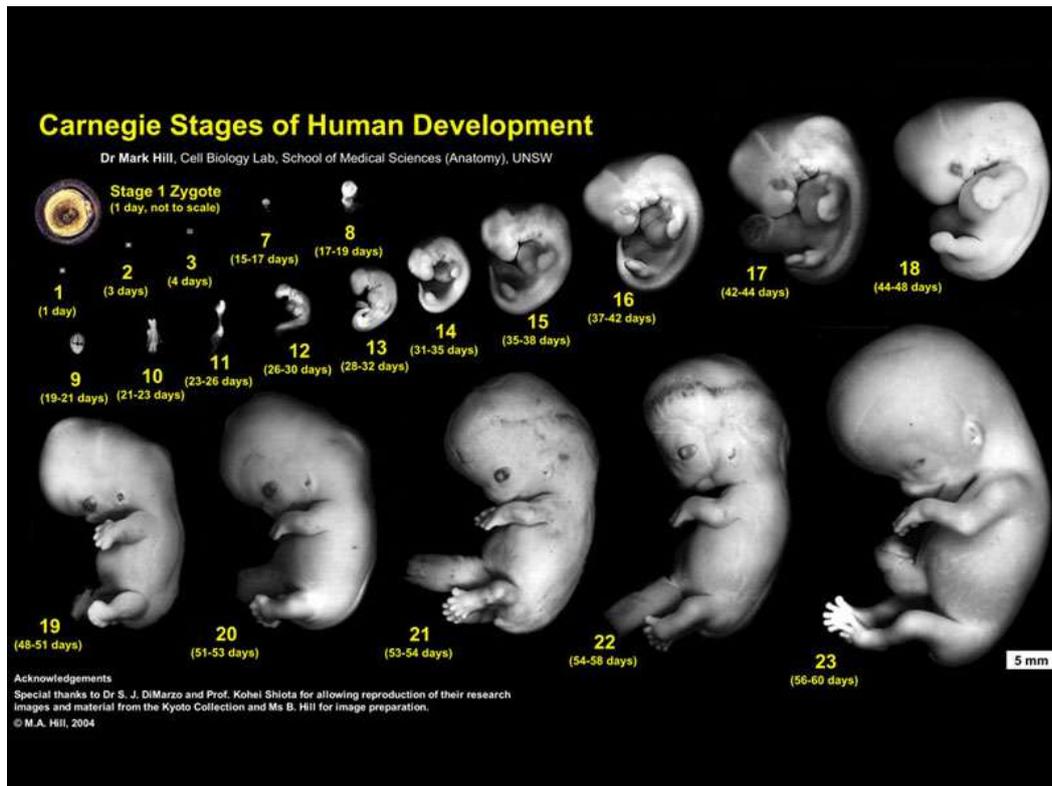


ANAT2341 Course Overview – Semester 2, 2014



Human Embryonic Development (week 1 to 8)



Dr Mark Hill

Course Coordinator
Room 211, level 2, Wallace Wurth West

UNSW AUSTRALIA
UNSW SYDNEY NSW 2052 AUSTRALIA
T: +61 (2) 9385 2477
F: +61 (2) 9385 2866
E: m.hill@unsw.edu.au
W: medalsciences.med.unsw.edu.au

Introduction to the Course

Welcome to Embryology in 2014 and thank you for choosing this course! This course will introduce embryological development as a major topic within medical sciences. Students completing this course will have a broad understanding of: human development, some animal models of development and current related research topics. Experts and researchers from within the field contribute to the current course.

Skills and knowledge from this current course will be a great advantage in your own future career. Take the opportunity to discuss potential future Honours projects with these researchers.

In **Lectures and Labs** I clearly identify any examinable material. A key component of course structure is the revision final lecture, an opportunity to review course material and ask questions about difficult concepts. As part of the course I also encourage you to develop the general scientific skills of critical thinking, analysis and scientific writing. These are important life skills applicable and required for any future (scientific) career.

Dr Mark Hill

(Updated July 2014)



Embryology Wiki

The course is supported online by a Wiki resource that allows student access to lecture and practical class materials, as well as the location for Group project work throughout the semester.

<http://embryology.med.unsw.edu.au>

Moodle

UNSW Australia during 2014 has begun using Moodle for course learning management. I will be adding course content throughout the semester, additional course resources, student discussion, and will also use for student contact.

<https://student.unsw.edu.au/moodle>



Table of Contents

Introduction to the Course	2
Course Coordinator	4
Student Contact	4
School of Medical Sciences Student Advisor	4
Course Information	4
Course Structure	4
Course Aims	5
Course Assessment	5
Assessment Design	5
Learning Outcomes	6
Examiner	6
Grievance Procedure	7
Special Consideration	7
Medical Certificates	7
UNSW Student Social Media Guidelines	7
Student Support Services	8
Withdrawal from Courses	8
Results	8
Academic Honesty and Plagiarism	9
Course Schedule Embryology	10
Textbooks	11
Health and Safety	11
Health and Safety – Risk Assessment	12

Course Coordinator

Dr Mark Hill

Room 211, level 2, Wallace Wurth West

E: m.hill@unsw.edu.au

Student Contact

Consultation times: Tuesday 1-2 pm; Wednesday 2-3 pm; or by email appointment.
Please contact me prior to consultation by email with brief description of issue.

UNSW Policy:

”When a student is enrolled into University of New South Wales, he or she will be automatically issued with a University email account. The School will use that email account as the official electronic channel to communicate with each student.”

School of Medical Sciences Student Advisor

Carmen Robinson, School of Medical Sciences, BSB Student Office

Room G27, Biosciences Building

E: Carmen.Robinson@unsw.edu.au P: +61 (2) 9385 2464 F: +61 (2) 9385 2202

BSB Office opening hours are: Monday, Wednesday, Thursday & Friday 9am - 12.30pm, 1.30pm - 4.30pm, Tuesday 9.45am - 4.30pm

Course Information

6 units of credit, Science/Anatomy program.

Course Structure

Course commences week 2 semester 2 2014.

Two lectures and a single 2 hour tutorial/laboratory per week. Content may vary in organisation from the provided draft timetable (page 11) dependent upon guest lecturer availability.

Lecture 1 – Tue 12:00 - 13:00 Wallace Wurth LG03 (K-C27-LG03)

Lecture 2 – Tue 16:00 - 17:00 Mathews Theatre C (K-D23-303)

Laboratory – Wed 11:00 - 13:00 Wallace Wurth G08 (K-C27-G08)

Course Aims

- This course will enable students to explore and gain further understanding of embryology through the investigation of development in both humans and animal models with a direct emphasis of their application to emerging research and reproductive technologies.
- This course will enable students to broadly understand abnormalities in development and current applications to medical research.

Course Assessment

There will be three parts to the course assessment.

Assessment task	Length	Weight	Learning outcomes assessed	Graduate attributes assessed	Due date
Individual Tasks	Throughout the semester	20 %	Critical thinking and initiative, information literacy	Scholarly enquiry of research literature	Throughout the semester
Group Project	One online project page	20 %	Information literacy and effective communication	Initiative and collaborative work	Week 9 peer assessment, Week 11 final assessment
Theory Examination	2 hours	60 %	Engagement with the relevant disciplinary knowledge in its interdisciplinary context	Apply developmental theory to anatomical development	Within the S2 exam period

Student individual and group assessment tasks are submitted online, except for some specialized tasks submitted by guest lecturers. Submission dates will be given when the task is initially set and late submissions penalized by 5% / day late.

Assessment Design

The course has been structured and designed around the 16 guidelines on learning (<http://teaching.unsw.edu.au/guidelines>) developed as part of UNSW guideline vision, values and strategies to improve the educational experience of students.

The course specifically builds upon the following graduate capabilities (<http://teaching.unsw.edu.au/graduate-capabilities>)

- understanding of their discipline in its interdisciplinary context
- capable of independent and collaborative enquiry

- rigorous in their analysis, critique and reflection
- able to apply their knowledge and skills to solving problems
- capable of effective communication
- information and digitally literate
- capable of initiating as well as embracing change
- collaborative and effective team workers
- capable of independent, self-directed practice
- capable of lifelong learning

Learning Outcomes

At the conclusion of this course the student will be able to:

- Describe the key events in early and systematic embryological development.
- Apply developmental theory to abnormalities of development and current medical research techniques.
- Complete tasks in scientific communication either online, written and by oral presentation.
- Work in small research groups and carry out peer assessment by completing an online group project.

Examiner

The course organizer (Dr Mark Hill) will be the examiner. The course assessor is Prof Edna Hardeman.

- **Theory examination** will be an exam within the session 1 exam period and will conform to University examination guidelines. Students absent through illness or misadventure should immediately contact UNSW Student Central.
 - <https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>
- **Supplementary examinations** will only be offered if the student is unable to attend the final examination for medical or misadventure reasons. Special considerations sought outside the 3 day time period WILL NOT be accepted except in TRULY exceptional circumstances.
- **Individual Assessment** (independent learning) brief questions based upon lecture and laboratory content given in the laboratory time and submitted online by the end of laboratory or an agreed submission time throughout semester.
- **Group Project** an online project prepared by small groups of students throughout semester. The project will have an assessment by student peers and final assessment by the course organizer at the end of semester.

<https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinations.html>

Grievance Procedure

Course problems or a grievance with the course, please first attempt to resolve with the course organizer (Dr Mark Hill) then the head of teaching (Prof. Ken Ashwell). If the grievance cannot be resolved in this way, please then contact to the school's grievance officer (Dr Priti Pandey).

<https://student.unsw.edu.au/complaints>

Special Consideration

Students applying for Special Consideration for an illness or misadventure that may have affected their ability to prepare or complete an assessment are required to follow the procedures outlined by the University in myUNSW and available at the following site:

<https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>

Students should particularly note the additional requirements beyond a standard medical certificate to include an assessment of the severity of your illness or misadventure and opinion of the likely effect on your capacity to undertake the assessment task/s concerned. The timeline for submission, i.e. within 3 days of the assessment, is also critical. A summary of each request for Special Consideration should also be forwarded to the Program Authority.

Medical Certificates

Students who miss scheduled activities due to illness or other reasons must submit a copy of a medical certificate or other acceptable documentation to the Course Coordinator. Certificates should be lodged no more than 3 days after the activity. Certificates received later than this will not be considered valid and will not be accepted. The following details must be included: Name, student number, date and name of activity missed. All medical certificates must be fully legible.

UNSW Student Social Media Guidelines

Please read and follow the UNSW student social media guidelines.

<https://student.unsw.edu.au/social-media-guidelines>

Student Support Services

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the Program Authority or Course Convenor, prior to or at commencement of the course, or with the Equity Officer in the SEADU (9385 4734). Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional examination and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

<http://www.studentequity.unsw.edu.au>

Withdrawal from Courses

The last date to discontinue a course without academic or financial penalty is the census date in each semester.

You may still discontinue courses after the census date and until the Withdrawal without Failure date without academic penalty. However, you are still liable for fees for the course. If your request for withdrawal from one or more courses is the result of exceptional circumstances you may be eligible to apply for reimbursement of charges for the course. In addition, if exceptional circumstances prevent you from completing a course, and the Withdrawal without Failure date has passed then you may choose to apply for late withdrawal from a course. In both cases you must demonstrate that you were prevented from completing a course by circumstances beyond your control, which extended over a significant period of time.

Results

Final result for the course is emailed to student email addresses. Results can also be viewed online by logging into MyUNSW and selecting “View Results” under “My Student Profile”.

<https://my.unsw.edu.au>

Academic Honesty and Plagiarism

Please read the information on plagiarism on the UNSW website.

<https://student.unsw.edu.au/plagiarism>

What is Plagiarism? - Plagiarism is the presentation of the thoughts or work of another as one's own.* Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism. Knowingly permitting your work to be copied by another student may also be considered to be plagiarism. Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism. The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle † Adapted with kind permission from the University of Melbourne.

Course Schedule Embryology

Draft timetable 2014 S2 guide only, subject to change.

<http://www.timetable.unsw.edu.au/current/ANAT2341.html>

Lecture - Tue 12:00 - 13:00 (Weeks: 2-13), Tue 16:00 - 17:00 (Weeks: 2-13)

Laboratory - Wed 11:00 - 13:00 (Weeks: 2-13)

Week	Date (Monday)	Lecture 1 Tue 12-1 pm Wallace Wurth LG03	Lecture 2 Tue 4-5 pm Mathews Theatre C	Laboratory Wed 11 am -1 pm Wallace Wurth East G08
2	4 Aug	Embryology Introduction	Gametogenesis and Fertilization	Lab 1
3	11 Aug	Week 1& 2	Week 3	Lab 2
4	18 Aug	Mesoderm Development	Ectoderm Development	Lab 3
5	25 Aug	Early Cardiovascular Development	Placentation	Lab 4
6	1 Sep	Gastrointestinal Development	Respiratory Development	Lab 5
7	8 Sep	Head Development	Neural Crest Development	Lab 6
8	15 Sep	Musculoskeletal Development	Limb Development	Lab 7
9	22 Sep	Renal Development	Genital Development	Lab 8
		27 Sep - 6 Oct	Mid Semester Break	
10	6 Oct	Endocrine Development	Integumentary Development	Lab 9
11	13 Oct	Neural Development	Sensory Development	Lab 10
12	20 Oct	Heart Development	Stem Cells	Lab 11
13	27 Oct	Fetal Development	Birth and Revision	Lab 12
	1 Nov	Study Week	1 Nov - 6 Nov	
	7 Nov	Examination Period*	7 Nov - 22 Nov	

* Examination dates are provisional and subject to change

<https://my.unsw.edu.au/student/resources/AcademicCalendar.html>

Textbooks

Either of the textbooks listed below are recommended for this course and page references to both are given in each lecture. There are additional embryology textbooks that can also be used, consult course organizer.

Both recommended textbooks are currently accessible online through the UNSW Library connection (links are included in online lecture and laboratory materials).

- Moore, KL, Persuad, TVN & Torchia MG. (2011) **The Developing Human: Clinically Oriented Embryology** (9th ed.). Philadelphia: Saunders.
- Schoenwolf, GC, Bleyl, SB, Brauer, PR & Francis-West, PH. (2009) **Larsen's Human Embryology** (4th ed.). New York; Edinburgh: Churchill Livingstone.

Online materials - Supported by the online education site UNSW Embryology:

<http://php.med.unsw.edu.au/embryology>

Each student will be provided access to an online page for their individual assessments and the group project.

Health and Safety

Please read and sign the Student Risk Assessment for Wallace Wurth East G08 located on the last page of this course outline. Additional health and safety information will be provided beforehand for any special or external classes. Please advise the course coordinator of any additional student health and safety requirements (see page 8), such as providing a Personal Emergency Evacuation Plan (PEEP), at the beginning of the course.

<http://medicalsciences.med.unsw.edu.au/students/health-safety>

Health and Safety – Risk Assessment

ScienceTeaching Laboratory

Student Risk Assessment

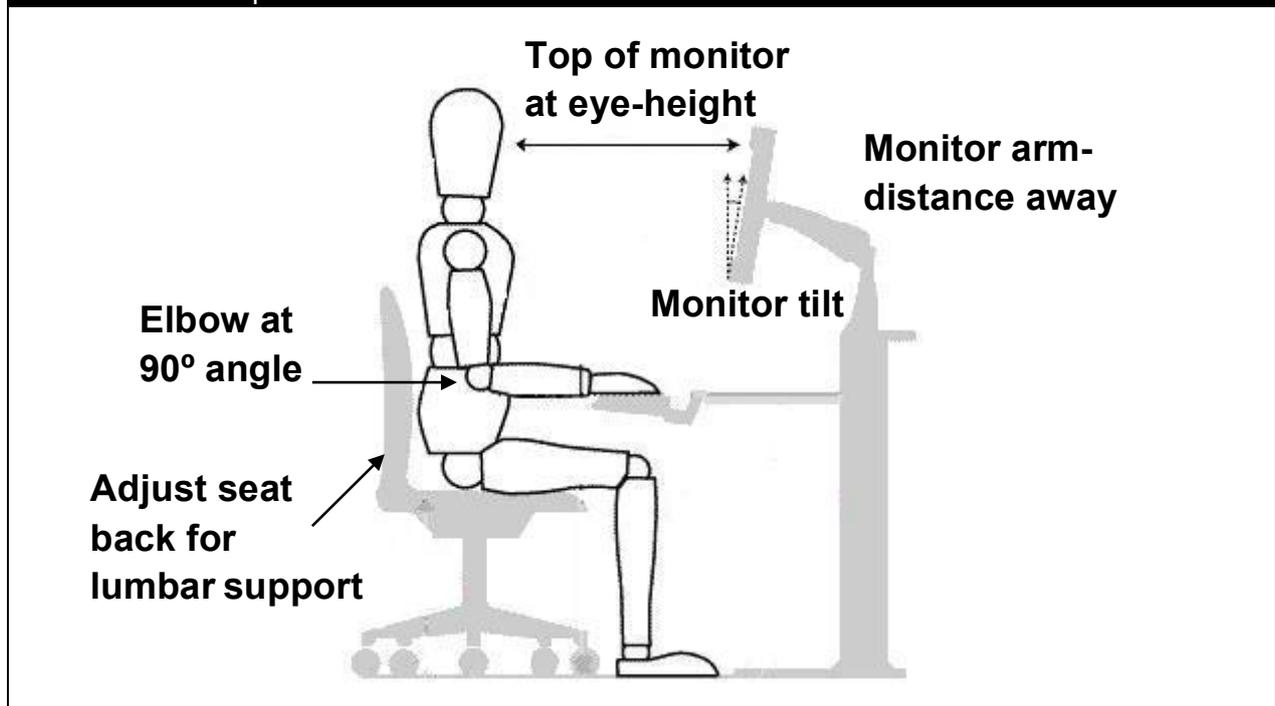


UNSW
THE UNIVERSITY OF NEW SOUTH WALES

ANAT2341
Wallace Wurth East G08
Practicals from weeks 1 to
12 in Semester 2, 2014.

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

Workstation set-up



Personal Protective Equipment

Not necessary in these practicals. (see note)

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

I have read and understand the safety requirements for these practical classes and I will observe these requirements.

Student Number:..... Signature:..... Date:.....

Note - Additional HS information will be provided for any external or special classes.