OBJECTIVES OF THE COURSE
The objectives of this course are:
a) to introduce the role of stem cells in development and function of the human body
b) to explain the potential uses of stem cells in medical treatments of a range of human diseases
c) to give students the opportunity to perform laboratory experiments with mouse embryonic and adult stem cells
d) to discuss the impact of stem cells on society and the media
e) to evaluate the legal restrictions on stem cell research and the extent to which it covers the concerns of society

IMPORTANT NOTES:
☐ Students must wear enclosed shoes and a lab coat in the laboratory
☐ No eating or drinking in the laboratory
☐ Mobile phone must be switched off during all lectures and laboratories

COMMUNICATION
Email is the official means by which the School of Medical Sciences at UNSW will communicate with you. It is recommended that you check your email every day.

PLAGIARISM
UNSW does not tolerate plagiarism in submitted written work. Please refer to https://my.unsw.edu.au/student/atoz/Plagiarism.html for more details about what constitutes plagiarism.

ATTENDANCE
Students are expected to be regular and punctual in attendance at all classes in the course.
Please note that attendance will be recorded for laboratory and workshop classes and students are expected to attend at least 80% of these sessions.
APPLICATIONS FOR CONSIDERATION

Students must submit an application for consideration within three working days when sickness or circumstance beyond their control prevent them from completing a course requirement or significantly affect their performance in examination, class test, laboratory test, etc. The form can be downloaded from: https://my.unsw.edu.au/student/academiclife/Forms.html#SpecialConsideration

LECTURERS
Professor Peter Gunning
Professor Edna Hardeman

PRACTICAL CLASSES
Dr Jeff Hook
Professor Peter Gunning
Professor Edna Hardeman

COURSE STRUCTURE AND TEACHING ACTIVITIES

This is a 6 unit of credit course and consists of:

- 18 lectures. All lectures are held in Pioneer Theatre, AGSM except 21/1/13 which is in Room 310 of the Mathews Building, on the third floor
- 6 laboratory sessions in Lab 329, BABS
- 4 workshop sessions are held in Rms 109/110, Wallace Wurth

ASSESSMENT PROCEDURE

There will be three quizzes each consisting of MCQs (15% of final mark each), one essay (35 % of final mark) and lab performance (20%)

LECTURES, PRACTICAL CLASSES AND TUTORIAL SCHEDULE

Week One

Day 1- Monday 7 January 2013
9:30 to 10:00 Welcome by Professors Peter Gunning and Edna Hardeman
10:00 to 11:00 "Core Concepts: Tissues and Cells"
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 "Regenerative Medicine"
Lecture by Prof Edna Hardeman
12:30 to 1:30 Lunch
1:30 to 2:00 Lab introduction
2:00 to 4:00 Laboratory 1 “Morphology of embryonic stem cells and fibroblasts” by Dr Jeff Hook, Profs Peter Gunning and Edna Hardeman
Day 2- Tuesday 8 January 2013
10:00 to 11:00 "Embryonic Stem Cells"
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 "Adult Stem Cells"
Lecture by Prof Edna Hardeman
12:30 to 1:30 Lunch
1:30 to 2:00 Lab introduction
2:00 to 4:00 Laboratory 2 “Growth of embryonic stem cells and fibroblasts” by Dr Jeff Hook, Profs Peter Gunning and Edna Hardeman

Day 3- Wednesday 9 January 2013
NO CLASSES – STUDY DAY

Day 4- Thursday 10 January 2013
10:00 to 11:00 QUIZ
11:00 to 11:30 Morning Tea
11:30 to 12:30 Revision Tutorial with Profs Peter Gunning and Edna Hardeman
12:30 to 1:30 Lunch
1:30 to 2:00 Lab introduction
2:00 to 4:00 Laboratory 3 “Manipulation of embryonic stem cell fate” by Dr Jeff Hook, Profs Peter Gunning and Edna Hardeman

Day 5- Friday 11 January 2013
10:00 to 11:00 “Cloning”
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 “Neurodegenerative Diseases”
Lecture by Prof Edna Hardeman
12:30 to 1:30 Lunch
1:30 to 2:00 Lab introduction
2:00 to 4:00 Laboratory 4 “Evaluation of embryonic stem cell differentiation” by Dr Jeff Hook, Profs Peter Gunning and Edna Hardeman

Week Two

Day 6- Monday 14 January 2013
10:00 to 11:00 "Stem Cells and Drug Development"
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 "Stem Cell Therapy”
Lecture by Prof Peter Gunning
12:30 to 1:30 Lunch
1:30 to 2:00 Lab introduction
2:00 to 4:00 Laboratory 5 “Muscle stem cell growth” by Dr Jeff Hook, Profs Peter Gunning and Edna Hardeman
Day 7- Tuesday 15 January 2013
10:00 to 11:00 "Muscle Stem Cell Transplantation"
Lecture by Prof Edna Hardeman
11:00 to 11:30 Morning Tea
11:30 to 12:30 Revision Tutorial with Profs Edna Hardeman and Peter Gunning
12:30 to 1:30 Lunch
1:30 to 2:00 Lab introduction
2:00 to 4:00 Laboratory 6 "Muscle stem cell differentiation" by Dr Jeff Hook and Profs Peter Gunning and Edna Hardeman

Day 8- Wednesday 16 January 2013
NO CLASSES – STUDY DAY

Day 9- Thursday 17 January 2013
10:00 to 11:00 QUIZ-2
11:00 to 11:30 Morning Tea
11:30 to 12:30 Revision Tutorial with Profs Peter Gunning and Edna Hardeman
12:30 to 1:30 Lunch
1:30 to 2:00 Selection of Workshop topics
2:00 to 4:00 Workshop preparation with Profs Peter Gunning and Edna Hardeman

Day 10- Friday 18 January 2013
10:00 to 11:00 "Stem Cell Myths and Challenges"
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 "Concerns of Society"
Lecture by Prof Peter Gunning
12:30 to 1:30 Lunch
1:30 to 3:30 Workshop preparation with Profs Peter Gunning and Edna Hardeman

Week Three

Day 11- Monday 21 January 2013 Today’s lectures are in Mat 310
10:00 to 11:00 “Human Life and Personhood”
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 "Legal Status of the Embryo and its Cells"
Lecture by Prof Peter Gunning
12:30 to 1:30 Lunch
1:30 to 3:30 Workshop group presentations

Day 12- Tuesday 22 January 2013
10:00 to 11:00 "Laws Regarding Embryonic Stem Cells in Australia"
Lecture by Prof Peter Gunning
11:00 to 11:30 Morning Tea
11:30 to 12:30 Revision Tutorial with Profs Peter Gunning and Edna Hardeman
12:30 to 1:30 Lunch
1:30 to 3:30 Workshop group presentations
Day 13 – Wednesday 23 January 2013
NO CLASSES – STUDY DAY

Day 14 – Thursday 24 January 2013
10:00 to 11:00 QUIZ-3
11:00 to 11:30 Morning Tea
11:30 to 12:30 “Science and Society in Perspective”
Lecture by Prof Peter Gunning
12:30 to 1:30 Lunch
1:30 to 3:00 Selection of Assignment Topics

Assignments due Friday 1 February 2013 at 5pm