School of Medicine

MEDI220: Musculoskeletal Functional Anatomy

Subject Outline
Spring, 2015
On Campus
Wollongong

Subject Information
Credit Points: 6
Pre-requisite(s): SHS111/MEDI111 & SHS 222/MEDI222 or EDPS101 & SHS 222/MEDI222
Co-requisite(s): Nil
Restrictions: A quota may apply in any one year
Contact Hours: 3hrs Lect, 3hrs Prac per week + 1hr Tut as per outline

Subject Contacts
Subject Coordinator/Lecturer

<table>
<thead>
<tr>
<th>Name:</th>
<th>Dr Deirdre McGhee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Building 41, Room 329</td>
</tr>
<tr>
<td>Telephone:</td>
<td>61 2 4221 4980</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:dierdre_mcghee@uow.edu.au">dierdre_mcghee@uow.edu.au</a></td>
</tr>
<tr>
<td>Consultation mode and times:</td>
<td>Tuesday 8.00-9.30am, 12.30-1.30pm; please email for an appointment</td>
</tr>
</tbody>
</table>

Student Support and Advice
For general enquiries please contact StudentHub 41:

Location: 41.138B
Telephone: 61 2 4221 3492
Email: smah-students@uow.edu.au
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Section A: General Information

Subject Learning Outcomes
On completion of this subject, students should be able to:

1. Identify muscles and bony prominences of the limbs and trunk on live humans and cadaveric specimens
2. Understand the structure and function of the musculoskeletal system in relation to movement, exercise and posture
3. Analyse movements and exercises in terms of muscle activation and function, joint range-of-motion and applied forces.

Subject Description
This subject investigates the functional anatomy of the musculoskeletal system in relation to movement, exercise and musculoskeletal pathology. The laboratories are based in the anatomy lab, with extensive use cadaveric material. The subject covers the skeletal, muscular and neural anatomy of the limbs and vertebral column and provides foundational anatomical knowledge and understanding to develop observational and palpation skills in surface anatomy, movement analysis and assessment, as well as clinical skills in exercise prescription of strength, range-of-motion and flexibility exercises.

This subject involves mandatory practical classes conducted in the Human Anatomy Laboratory. Students will be exposed to human cadaveric specimens during teaching, learning and assessments in this subject. Students with a medical history of immunosuppression, who are pregnant or believe that a relative or family friend has donated their remains to the laboratory, need to directly contact the subject co-ordinator regarding subject enrolment advice.

Graduate Qualities
The University of Wollongong has developed five graduate qualities (http://www.uow.edu.au/student/qualities/index.html), which it considers express valuable qualities that are essential for UOW graduates in gaining employment and making an important contribution to society and their chosen field. Student development of the following graduate qualities will be enhanced by their participation in this subject:

1. Informed: Have a sound knowledge of an area of study or profession and understand its current issues, locally and internationally. Know how to apply this knowledge. Understand how an area of study has developed and how it relates to other areas.
2. Independent learners: Engage with new ideas and ways of thinking and critically analyse issues. Seek to extend knowledge through ongoing research, enquiry and reflection. Find and evaluate information, using a variety of sources and technologies. Acknowledge the work and ideas of others.
3. Problem solvers: Take on challenges and opportunities. Apply creative, logical and critical thinking skills to respond effectively. Make and implement decisions. Be flexible, thorough, innovative and aim for high standards.
4. Effective communicators: Articulate ideas and convey them effectively using a range of media. Work collaboratively and engage with people in different settings. Recognise how culture can shape communication.
5. Responsible: Understand how decisions can affect others and make ethically informed choices. Appreciate and respect diversity. Act with integrity as part of local, national, global and professional communities.

eLearning Space
This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column. For information regarding the eLearning spaces please use the following link: http://uowblogs.com/moodlelab/files/2013/05/Moodle_StudentGuide-1petpo7.pdf
Lecture, Tutorial, Laboratory Times
All timetable information is subject to variation. Check the latest information on the university web timetable via the Timetable link on the Current Students webpage or log into SOLS to view your personal timetable prior to attending classes.


Readings, References and Materials
Textbooks
The following text(s) will need to be purchased by students enrolled in this class.

Kinesiology, Mechanics & Pathomechanics of Human Movement, Carol Oatis.

MEDI220 Lab Manual, University of Wollongong

Prescribed Readings (includes eReadings)
The following readings are prescribed for this subject, but students are not expected to purchase these. They are available to students through the library on the subjects eLearning site.

Nil

Materials
Nil

Recommended Readings
The following references complement the prescribed readings and textbooks:


Recommended readings are not intended as an exhaustive list, students should use the Library catalogue and databases to locate additional resources.

Recent Changes to this Subject
Nil

Laboratory Safety Guidelines
The rules below are general rules that are required in laboratories.

- Before commencing your project you are to ensure that you understand specific procedures for the laboratory in which you work.
- You will need to fill out a risk assessment form before commencing any experiments (confer with your laboratory supervisor).
- Never use any equipment or attempt any experiment without checking the safety implications with your laboratory supervisor or experienced delegated laboratory worker.
• Undergraduate students are not permitted to work after hours unless there is appropriate approval and supervision.

List of Topics Covered
The following are examples of the topics to be covered in this course. This is not an exhaustive list and will be subject to change.

• Muscle Mechanics
• Range of motion assessment
• Knee Complex
• Hip Complex
• Ankle/Foot Complex
• Elbow Complex
• Shoulder Complex
• Wrist/Hand Complex
• Nerve supply UL/LL
• Vertebral Column/Pelvis
• Movement/posture analysis
• Surface anatomy
• Muscle stretching

A Timetable of Topics will be available from the eLearning site in week 1 of session.
Section B: Assessment

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Form of Assessment</th>
<th>Due Date</th>
<th>Return/Feedback Due Dates</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment 1</td>
<td>Spot Test 1</td>
<td>Week 5</td>
<td>2 weeks from submission date</td>
<td>7.5%</td>
</tr>
<tr>
<td>Assessment 2</td>
<td>Practical Exam 1</td>
<td>Week 6</td>
<td>2 weeks from submission date</td>
<td>12%</td>
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<tr>
<td>Assessment 3</td>
<td>Spot Test 2</td>
<td>Week 11</td>
<td>2 weeks from submission date</td>
<td>7.5%</td>
</tr>
<tr>
<td>Assessment 4</td>
<td>Practical Exam 2</td>
<td>Study Recess</td>
<td>2 weeks from submission date</td>
<td>18%</td>
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<tr>
<td>Assessment 5</td>
<td>Final Theory Exam</td>
<td>UOW Exam Week</td>
<td>2 weeks from submission date</td>
<td>55%</td>
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<tr>
<td><strong>Total Marks</strong></td>
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<td><strong>100%</strong></td>
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Details of Assessment Tasks

Assessment tasks will be marked using explicit criteria that will be provided to students prior to submission.

**Assessment 1**
- **Spot Test 1**
  - **Due date**: Week 5
  - **Weighting**: 7.5%
  - **Submission**: Moodle quiz
  - **Type of Collaboration**: Individual Assessment
  - **Length**: Less than 10mins
  - **Details**: Spot Test 1: Covers lectures and labs weeks 1-5 inclusive
  - **Style and format**: Moodle Quiz
  - **Subject Learning Outcomes**: 2, 3
  - **Marking Criteria**: Multiple choice questions

**Assessment 2**
- **Practical Exam 1**
  - **Due date**: Wednesday, 2 September 2015 (Week 6)
  - **Weighting**: 12%
  - **Submission**: Exam papers and answers must be submitted at the conclusion of the exam.
  - **Type of Collaboration**: Individual Assessment
  - **Length**: 13 mins
  - **Details**: Covers lectures and labs weeks 1-6 inclusive
  - **Style and format**: Cadaver based exam in anatomy lab
  - **Subject Learning Outcomes**: 1, 2, 3
  - **Marking Criteria**: Short answer questions with cadavers

**Assessment 3**
- **Spot Test 2**
  - **Due date**: Week 11
  - **Weighting**: 7.5%
  - **Submission**: Moodle quiz
  - **Type of Collaboration**: Individual Assessment
  - **Length**: Less than 10 mins
  - **Details**: Spot Test 2: Covers lectures and labs weeks 6-10 inclusive
  - **Style and format**: Moodle quiz
Subject Learning Outcomes
2, 3

Marking Criteria
Multiple choice questions

Assessment 4

<table>
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<tr>
<th>Practical Exam 2</th>
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<tr>
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<td>Submission</td>
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<tr>
<td>Type of Collaboration</td>
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<td>Length</td>
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<td>Details</td>
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<td>Marking Criteria</td>
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Assessment 5

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<th>Final Theory Exam</th>
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<tr>
<td>Subject Learning Outcomes</td>
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<tr>
<td>Marking Criteria</td>
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Minimum Requirements for a Pass in this Subject

To receive a clear pass in this subject a total mark of 50% or more must be achieved. In addition, failure to meet any of the minimum performance requirements is grounds for awarding a Technical Fail (TF) in the subject, even where total marks accumulated are greater than 50%.

The minimum performance requirements for this subject are:

- meet the minimum participation requirements set out below.

Minimum Student Attendance and Participation

It is expected that students will allocate 12 hours per week to this subject, including any required class attendance, completion of prescribed readings and assessment tasks.

Student attendance at practicals is compulsory and students must attend at least 80% of classes and attend the full duration of the laboratory. Absences will require the submission of an application for Academic Consideration via SOLS and the presentation of suitable documentation, for example a Medical Certificate, to Student Central as soon as practical. For further details about applying for academic consideration visit the Student Central webpage: http://www.uow.edu.au/student/central/academicconsideration/index.html
Scaling
Scaling may occur in this subject in the form of a combination of methods dependent on circumstances pertaining to the result in any one year e.g. addition/subtraction, percentage adjustment or piecewise scaling. Any adjustment will normally be minor (e.g. <2% of final mark).

Late Submission
Late submission of an assessment task without an approved extension of the deadline is not acceptable. If you are unable to submit an assessment due to extenuating circumstances (e.g. medical grounds or compassionate grounds), you can make an application of academic consideration. Not all circumstances qualify for academic consideration. For further details about applying for academic consideration visit the Student Central webpage: http://www.uow.edu.au/student/central/academicconsideration/index.html

Late Submission Penalty
Marks will be deducted for late submission at the rate of 5% of the total possible marks for that particular assessment task per day. This means that if a piece of work is marked out of 100, then the late penalty will be 5 marks per day (5% of 100 possible marks per day). The formula for calculating the late penalty is: the total possible marks x 0.05 x number of days late. For the purposes of this policy a weekend (Saturday and Sunday) will be regarded as two days.

For example:
- Student A submits an assessment which is marked out of 100. The assessment is submitted 7 days late. This means that a late penalty of 35 marks will apply (100 x 0.05 x 7). The assessment is marked as per normal out of 100 and is given a mark of 85/100, and then the late penalty is applied. The result is that the student receives a final mark of 50/100 for the assessment (85 (original mark) – 35 marks (late penalty) = 50/100 (final mark)).
- Student B submits a report which is marked out of 20. The report is submitted three days late. This means that a late penalty of 3 marks will apply ((20 x 0.05 x 3). The report is marked as per normal out of 20 and is given a mark of 17/20, and then the late penalty is applied. The result is that the student receives a final mark of 14/20 for the report (17 (original mark) – 3 marks (late penalty) = 14/20 (final mark)).

No marks will be awarded for work submitted either after the assessment has been returned to the students or more than two weeks after the due date, whichever is the sooner. This does not apply to situations where a particular assessment task is undertaken by students at different times throughout the session, but where the assessment is based on experiments or case studies specific to a student. In this case no marks will be awarded for work submitted more than two weeks after the due date.

Notwithstanding this, students must complete all assessment tasks to a satisfactory standard and submit them, regardless of lateness or loss of marks, where submission is a condition of satisfactorily completing the subject.

Supplementary Assessments
Supplementary assessment may be offered to students whose performance in this subject is close to that required to pass the subject, and are otherwise identified as meriting an offer of a supplementary assessment. The precise form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made.

Students can log on to SOLS and click on the link titled “Supplementary Assessment” to view any applicable offers or use the following link; http://www.uow.edu.au/student/exams/suppassess/index.html
System of Referencing Used for Written Work

All assessments in this subject are exam based. Students may be required to reference material within their exam. The system of referencing used will not be assessable however appropriate acknowledgment of information sources must be included.

Use of Internet Sources

Students are able to use the Internet to access the most current information on relevant topics and information. Internet sources should only be used after careful critical analysis of the currency of the information, the role and standing of the sponsoring institution, reputation and credentials of the author, the clarity of the information and the extent to which the information can be supported or ratified by other authoritative sources.

Plagiarism

The full policy on Academic Integrity and Plagiarism is found in the Policy Directory on the UOW website.

"The University's Academic Integrity and Plagiarism Policy, Faculty Handbooks and subject guides clearly set out the University’s expectation that students submit only their own original work for assessment and avoid plagiarising the work of others or cheating. Re-using any of your own work (either in part or in full) which you have submitted previously for assessment is not permitted without appropriate acknowledgement. Plagiarism can be detected and has led to students being expelled from the University.

The use by students of any website that provides access to essays or other assessment items (sometimes marketed as ‘resources’), is extremely unwise. Students who provide an assessment item (or provide access to an assessment item) to others, either directly or indirectly (for example by uploading an assessment item to a website) are considered by the university to be intentionally or recklessly helping other students to cheat. This is considered academic misconduct and students place themselves at risk of being expelled from the University."

Submission of Assessments

Refer to the submission requirements under the details of the individual assessments. Students should ensure that they receive a receipt acknowledging submission. Students will be required to produce this in the event that an assessment task is considered to be lost. Students are also expected to keep a copy of all their submitted assessments in the event that re-submission is required.

Assessment Return

Contact your lecturer/tutor/subject coordinator if you would like feedback on your assessment. In accordance with University Policy marked assessments will usually only be held for 21 days after the declaration of marks for that assessment.
Section C: General Advice

Students should refer to the Faculty of Science, Medicine and Health website for information on policies, learning and support services and other general advice.

University Policies

Students should be familiar with the following University policies:

a. Code of Practice – Teaching and Assessment

b. Student Charter

c. Academic Integrity and Plagiarism Policy

d. Student Academic Consideration Policy

e. Course Progress Policy

f. Graduate Qualities Policy

g. Academic Complaints Policy (Coursework and Honours Students)

h. Policy and Guidelines on Non-Discriminatory Language Practice and Presentation

i. Workplace Health and Safety, where relevant

j. Intellectual Property Policy

k. Student Conduct Rules and accompanying Procedures or Research Misconduct Policy for research students

Student Support Services and Facilities

Students can access information on student support services and facilities at the following link. This includes information on “Academic Support”, “Starting at University”, “Help at University” as well as information and support on “Career’s and Jobs”. http://www.uow.edu.au/student/services/index.html

Student Etiquette

Guidelines on the use of email to contact teaching staff, mobile phone use in class and information on the university guide to eLearning ‘Netiquette’ can be found at http://www.uow.edu.au/student/elearning/netiquette/index.html
### Version Control Table

<table>
<thead>
<tr>
<th>Version Control</th>
<th>Release Date</th>
<th>Author/Reviewer</th>
<th>Approved By</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>1</td>
<td>10/07/2015</td>
<td>Dr Deirdre McGhee – Subject Coordinator</td>
<td>Sonia Losinno – ADE Nominee</td>
<td>Final MEDI220 Spring 2015 Subject Outline</td>
</tr>
<tr>
<td>2</td>
<td>14/07/2015</td>
<td>Dr Deirdre McGhee – Subject Coordinator</td>
<td>Sonia Losinno – ADE Nominee</td>
<td>Updates to assessment details</td>
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</tbody>
</table>