Human Anatomy for Pharmacy Students  
Course Syllabus – Fall, 2016

<table>
<thead>
<tr>
<th>Course #</th>
<th>ANAT 1030</th>
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<tbody>
<tr>
<td>Credit Hours</td>
<td>3</td>
</tr>
<tr>
<td>Contact Hours</td>
<td>39</td>
</tr>
<tr>
<td>Class/lab times</td>
<td>Tuesdays and Thursdays, 2:30 – 5:30 pm</td>
</tr>
<tr>
<td></td>
<td>Start date: Thursday, September 8, 2016</td>
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<tr>
<td></td>
<td>End date: Thursday, December 1, 2016, final exam date – to be determined</td>
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</tbody>
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Please see attached lecture/lab schedule.

<table>
<thead>
<tr>
<th>Lecture Location</th>
<th>Room 71, Apotex Center</th>
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<tbody>
<tr>
<td>Lab Location</td>
<td>Gross Anatomy laboratory</td>
</tr>
<tr>
<td></td>
<td>Basement level of Basic Medical Science Building (BMSB)</td>
</tr>
</tbody>
</table>

Course Director  
Dr. Sari S. Hannila  
Department of Human Anatomy and Cell Science  
Office: Room 128, Basic Medical Sciences Building (BMSB)  
Telephone: (204) 789-3483  
E-mail: Sari.Hannila@umanitoba.ca

Course Instructors  
Neuroanatomy - Dr. Hugo Bergen, Hugo.Bergen@umanitoba.ca  
Head and Neck - Dr. Thomas Klonisch, Thomas.Klonisch@umanitoba.ca  
Musculoskeletal - Dr. Jason Peeler, Jason.Peeler@umanitoba.ca  
Thorax - Dr. Aleksandra Glogowska, Aleksandra.Glogowska@umanitoba.ca  
Abdomen - Dr. Sari S. Hannila, Sari.Hannila@umanitoba.ca  
Pelvis - Dr. Sabine Hombach-Klonisch, Sabine.Hombach-Klonisch@umanitoba.ca

Course Description and Format  
This is a 3 credit hour course that runs 14 weeks from September to December. It consists of both didactic lectures and laboratory sessions. The course is intended to provide an introduction to human anatomy for first year Pharmacy students. The structure and organization of the course are based on a regional approach to the study of the body. Thus, basic concepts and essential details will be presented in a regional manner. The functional aspects of human anatomy will be integrated with structure, and the clinical importance of anatomical relationships will be introduced where appropriate.

Understanding and remembering anatomy is greatly facilitated by visual learning. Accordingly, laboratory periods are an important and regularly scheduled part of the course. They provide an opportunity to view body structures and their relationships in three dimensions. These exercises reinforce the lecture material and open up a different dimension of learning. During the laboratory sessions, students will examine pre-dissected human cadaveric specimens and view models relating to the structures discussed in the lectures. Even though no dissection is involved, students must wear proper attire in the gross anatomy laboratory (requirements will be outlined in the
Introductory lecture). During lab periods students will work alone or in small groups and follow the instructions for each lab that are provided in the Lab Notes and Guide.

Students are advised to come to lectures and lab prepared by having read in advance the Lecture Objectives and/or Lab Notes and Guide for the appropriate sections. The textbook should be used as a learning resource: Do not attempt to memorize it.

**Required Textbook**

*Essential Clinical Anatomy*, Moore KL, Agur AMR, Dalley AF, 5th edition, Lippincott Williams & Wilkins, 2014. (Any of the preceding editions – 1st through 4th – may also be used).

**Additional Resources**

The following atlases are recommended for use in the lab (the student may choose the one that they prefer):


**Lecture & Lab Notes**

All lecture and lab notes/handouts will be uploaded on UM Learn at: [https://universityofmanitoba.desire2learn.com/d2l/login](https://universityofmanitoba.desire2learn.com/d2l/login)

**Evaluation and Grading**

Three examinations will be held to evaluate the students’ knowledge and understanding of the subject matter. The format of these exams will be multiple choice and each exam will be a maximum of 3 hours in duration. Six laboratory quizzes will also be held (one after each lab session). These quizzes will be conducted on UM Learn and collectively will be worth 5% of the final course grade.

**Midterm Exam, 35% of final course grade**

In class - Thursday, October 27, 2016

**Final Written Exam, 40% of final course grade**

Location and time – to be determined (Final written and practical exams will be held consecutively on the same day)

**Final Practical Exam, 20% of final course grade**

Location and time – to be determined

**Laboratory Quizzes (6 in total), 5% of final course grade**

Online – UM Learn, immediately following each lab session (see course schedule for dates)
The final mark (out of 100) will be translated to a course letter grade according to the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A+</td>
<td>&gt;90 %</td>
</tr>
<tr>
<td>A</td>
<td>80-89 %</td>
</tr>
<tr>
<td>B+</td>
<td>75-79 %</td>
</tr>
<tr>
<td>B</td>
<td>70-74 %</td>
</tr>
<tr>
<td>C+</td>
<td>65-69 %</td>
</tr>
<tr>
<td>C</td>
<td>60-64 %</td>
</tr>
<tr>
<td>D</td>
<td>50-59 %</td>
</tr>
<tr>
<td>F</td>
<td>&lt;50 %</td>
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Please refer to the College of Pharmacy’s Supplemental Exams Policy regarding final course grade marks below C or 60%.

**Student Feedback / Course Evaluations**

Constructive feedback regarding the course is always encouraged! Students are asked to direct any questions and/or concerns they may have about the course directly to the course director (Dr. Sari S. Hannila). At the end of the term, students will be given the opportunity to formally evaluate the course and provide feedback via a standardized questionnaire.

**University of Manitoba Academic Regulations**

*Academic Integrity*

Plagiarism or any other form of cheating in assignments or examinations is subject to serious academic penalty as per the University of Manitoba’s policy on academic integrity.

ANAT 1030
Human Anatomy for Pharmacy, and Respiratory Therapy Students
Lecture and Lab Schedule – Fall, 2016

Please NOTE! Star symbol (*) indicates lectures that occur back-to-back on the same day.

INTRODUCTORY LECTURE

Lecture 1 – Introduction to Gross Anatomy and Anatomical Terminology
Thursday, Sept 8, 2:30 – 4:00 pm, Apotex Centre (Room 71)
Instructor: S. Hannila

NEUROANATOMY

Lecture 2 – Nervous System I: CNS
Tuesday, September 13, 2:30-3:30 pm, Apotex Centre (Room 71)
Instructor: H. Bergen

Lecture 3 – Nervous System II: Cranial Nerves, CSF, and Blood Supply
Thursday, September 15, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: H. Bergen

*Lecture 4 – Nervous System III: Spinal Cord and Plexus
Tuesday, September 20, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: H. Bergen

*Clinical Anatomy Lecture 1 – Neuroanatomy
Tuesday, September 20, 3:30 – 4:30 pm, Apotex Centre (Room 71)
Instructor: H. Bergen

Laboratory 1 – Nervous System
Thursday, September 22, 2:30 – 5:30 pm, Gross Anatomy Lab
Section 1 (Groups A, B, and C): 2:30 – 4:00 pm
Section 2 (Groups D, E, and F): 4:00 – 5:30 pm
Instructors: S. Hannila, H. Bergen, J. Vriend

HEAD and NECK

*Lecture 5 – Head and Neck I: Skull, Face, Eye, and Ear
Tuesday, September 27, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: T. Klonisch

*Lecture 6 – Head and Neck II: Oral and Nasal Cavities, and Pharynx
Tuesday, September 27, 3:30– 4:30 pm, Apotex Centre (Room 71)
Instructor: T. Klonisch
*Lecture 7 – Head and Neck III: Neck  
Thursday, September 29, 2:30 – 3:30 pm, Apotex Centre (Room 71)  
Instructor: T. Klonisch

*Clinical Anatomy Lecture 2 – Head and Neck  
Thursday, September 29, 3:30 – 4:30 pm, Apotex Centre (Room 71)  
Instructor: T. Klonisch

Laboratory 2 – Head and Neck  
Tuesday, October 4, 2:30– 5:30 pm, Gross Anatomy Lab  
Section 1 (Groups A, B, and C): 2:30 – 4:00 pm  
Section 2 (Groups D, E, and F): 4:00 – 5:30 pm  
Instructors: S. Hannila, T. Klonisch, J. Vriend

MUSCULOSKELETAL

Lecture 8 – Musculoskeletal I: Vertebral Column, Back, and Shoulder  
Tuesday, October 11, 2:30 – 3.30 pm, Apotex Centre (Room 71)  
Instructor: J. Peeler

Lecture 9 – Musculoskeletal II: Upper Extremity  
Thursday, October 13, 2:30 - 3:30 pm, Apotex Centre (Room 71)  
Instructor: J. Peeler

Lecture 10 – Musculoskeletal III: Lower Extremity  
Tuesday, October 18, 2:30 – 3:30 pm, Apotex Centre (Room 71)  
Instructor: J. Peeler

*Clinical Anatomy Lecture 3 – Musculoskeletal System  
Tuesday, October 18, 3:30 – 4:30 pm, Apotex Centre (Room 71)  
Instructor: J. Peeler

Laboratory 3 – Musculoskeletal System  
Thursday, October 20, 2:30 - 5:30 pm, Gross Anatomy Lab  
Section 1 (Groups A, B, and C): 2:30 – 4:00 pm  
Section 2 (Groups, D, E, and F): 4:00 – 5:30 pm  
Instructors: S. Hannila, J. Peeler, J. Vriend

MIDTERM EXAMINATION

Written MCQ Exam - Thursday, October 27, 2:30 – 4:30 pm, Apotex Centre (Room 71)
**THORAX**

*Lecture 11 – Thorax I: Thoracic Wall and Mediastinum*
Tuesday, November 1, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: A. Glogowska

*Lecture 12 – Thorax II: Heart and Great Vessels*
Thursday, November 3, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: A. Glogowska

*Clinical Anatomy Lecture 4 – Thorax*
Thursday, November 3, 3:30 – 4:30 pm, Apotex Centre (Room 71)
Instructor: A. Glogowska

**Laboratory 4 – Thorax**
Tuesday, November 8, 2:30 – 5:30 pm, Gross Anatomy Lab
Section 1 (Groups A, B, and C): 2:30 – 4:00 pm
Section 2 (Groups D, E, and F): 4:00 – 5:30 pm
Instructors: S. Hannila, A. Glogowska, J. Vriend

**ABDOMEN**

*Lecture 13 – Abdomen I: Abdominal Wall and Cavity*
Thursday, November 10, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: S. Hannila

*Lecture 14 – Abdomen II: Abdominal Viscera*
Tuesday, November 15, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: S. Hannila

*Clinical Anatomy Lecture 5 – Abdomen*
Thursday, November 17, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: S. Hannila

*Laboratory 5 – Abdomen*
Tuesday, November 22, 2:30 – 5:30 pm, Gross Anatomy Lab
Section 1 (Groups A, B, and C): 2:30 – 4:00 pm
Section 2 (Groups D, E, and F): 4:00 – 5:30 pm
Instructors: S. Hannila, A. Glogowska, J. Vriend

**PELVIS and UROGENITAL SYSTEM**

*Lecture 15 – Pelvis I: Pelvis, Perineum, and Reproductive Systems*
Thursday, November 24, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: S. Hombach-Klonisch
*Lecture 16 – Pelvis II: Retroperitoneal Space and Renal System
Tuesday, November 29, 2:30 – 3:30 pm, Apotex Centre (Room 71)
Instructor: S. Hombach-Klonisch

*Clinical Anatomy Lecture 6 – Pelvis
Tuesday, November 29, 3:30 – 4:30 pm, Apotex Centre (Room 71)
Instructor: S. Hombach-Klonisch

Laboratory 6 – Pelvis
Thursday, December 1, 2:30 – 5:30 pm, Gross Anatomy Lab
Section 1 (Groups A, B, and C): 2:30 – 4:00 pm
Section 2 (Groups D, E, and F): 4:00 – 5:30 pm
Instructors: S. Hannila, S. Hombach-Klonisch, J. Vriend

FINAL EXAMINATIONS

Dates and location: to be determined