The course has been created to explore skeletal system as a focus of inquiry-based learning. Bones can be examined from a variety of perspectives: anatomical, pathological, clinical; ethical, political, social… Changes in bones may result in serious health issues. Bones contain a number of different cells and multiple active substances that are necessary for overall well-being in every of us. Because some of us carry genetic anomalies, our bones may be shorter, more brittle… and may alter our own health and how society perceived us.

In this course, we will examine the following topics: bone anatomy and cytology, pathological changes in skeletal system, bone pain as a result of metastasis, osteoporosis, genetic skeletal malformation, use of bone in art, skeletons as learning tools and museum specimens, minor/adult determination based on bone growth, policies around elective orthopedic surgeries, bone transplant, use of information about skeletal injuries for legal proceedings… This is not an exhaustive list and the final topic inventory will be compiled as a result of our collaboration.

By the end of the course, you will be able to:

• Discuss the place of bones in the health sciences and society;
• Identify relevant information to the topic of your interest and critique its limitations;
• Identify your strengths and weaknesses working individually or in a group and develop strategies to improve the performance;
• Develop further your inquiry skills with respect to problem solving and professional communication;
• Practice confidence and skill in oral and written communication in an academic setting.

Assessment:

1. Suggested literature
2. Annotated Bibliography
3. Reflection piece
4. Group Presentation
5. Peer evaluation
6. ……..
7. Final Paper 30%

Written Work and Late Submissions:

All written work will be marked on content and analysis, as well as grammar, clarity of writing, and organization. More details about the marking scheme for each assignment will be provided in the assignment outlines. All work must be properly referenced, with footnotes and a bibliography. Use the American Psychological Association 6th edition style for referencing. Examples can be found at McMaster University APA Style Guide. Students are encouraged to visit the Student Success Centre if required any academic support, including assistance with the essay writing.

All written work must be submitted at the end of day (11:59pm), on the due date. Students wishing to hand papers in at an alternate time should contact the instructor before the due date to make arrangements. An electronic version of the assignment must be emailed to your instructor as a time-stamp to stop late marks from further accruing.

Late assignments will be penalized 2% a day (weekends will count as one day). Late penalties will not be waived except by particular arrangement prior to the due date OR unless your Faculty/Program Office advises the instructor that you have submitted to that office the appropriate documentation to support your inability to submit the work by the due date.

Contacting the Instructor:

All communication outside of class time and individual consultations will take place via email. Students are expected to check their McMaster email account on a weekly basis. Students can expect replies by the instructor within 48 hours of the sending the message.

Office Hours:

Office hours will be held by appointment. Please contact instructor to arrange the meeting time.

Course Material:

● Mandatory:
  ○ There is no mandatory material for this course
ACADEMIC INTEGRITY

You are expected to exhibit ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy.

In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). More information about the policy related to the issue can be found at the McMaster Information about use of Turnitin.com.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Guest Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept 04</td>
<td>Introductions&lt;br&gt;Setting the course goals&lt;br&gt;Creating the syllabus</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sept 11</td>
<td>Bone anatomy and cytology (macro- and micro-anatomy, bone classification…)&lt;br&gt;Forensic Anthropology and 9/11</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sept 18</td>
<td>Bone Physiology (bone remodeling cycle: resorption, reversal, formation…; hormones..)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sept 25</td>
<td>Congenital bone disease (impact of thalomide, hip dislocation, polyiostotic fibrous dysplasia, Marfan syndrome, impact of hemophilia…)&lt;br&gt;“Little Couple TV show</td>
<td>Dr. Snezana Popovic, MD, PhD, MSc, FRCP&lt;br&gt;Associate Professor&lt;br&gt;Pathology and Molecular Medicine&lt;br&gt;McMaster University</td>
</tr>
<tr>
<td>5</td>
<td>Oct 02</td>
<td>Bone pathology</td>
<td>Robert Ungard, MSc. PhD (c)&lt;br&gt;Dr. Singh Lab&lt;br&gt;McMaster University</td>
</tr>
<tr>
<td>6</td>
<td>Oct 09</td>
<td>Mid-term recess</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Oct 16</td>
<td>Bones and pain</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Oct 23</td>
<td>Osteoporosis (physiology, epidemiology, pharmaceutical companies, advertisement…)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Oct 30</td>
<td>Bone injuries and legal system (motor vehicle accidents, intimate partner violence, child abuse, abuse of the elderly...)</td>
<td>Jed Adam Gross, JD MPhil&lt;br&gt;Bioethicist (Multi-Organ Transplant)&lt;br&gt;University Health Network</td>
</tr>
<tr>
<td>10</td>
<td>Nov 06</td>
<td>Bone transplant (access, ethics, HLA typology, medical procurement companies…)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Nov 13</td>
<td>Bones as determination of age, sex and identity (age at death age of majority, political use of science re: immigration, forensic…)</td>
<td></td>
</tr>
</tbody>
</table>
12 | Nov 20 | Bone remains/treatment of bones (cremation, exhibition of bones in churches, bones as religious relics…)
| Matthew Stevens  
| Owner  
| Sunset Memorial Charters |

13 | Nov 27 | Bones, art and museums (biomedical companies, The Body World exhibitions, art of Christine Bolrand, skeletons of indigenous people and museums…)

14 | Dec 04 | Final words

**NB: Since this is an inquiry based-course, the syllabus and schedule are expected to develop throughout the course**

The University reserves the right to change dates and/or deadlines etc. for any or all courses in the case of an emergency situation or labour disruption or civil unrest/disobedience, etc.