DEPARTMENT OF SCIENCE
COURSE OUTLINE – Fall 2017

NS1500 - Anatomy and Physiology – 6(6-0-0) 90 Hours 15 Weeks

INSTRUCTOR: Beatrice Amar, Ph.D.  PHONE: 780-539-2031
OFFICE: J208  E-MAIL: bamar@gprc.ab.ca

OFFICE HOURS: Mon. 3.00-4.30 pm & Wed. 10.00 -11:30 am or by appointment

CALENDAR DESCRIPTION:

NS1500 6 (6-0-0) UT 90 Hours 15 Weeks
Introduction to the structure of the human body and an introduction to human physiology. Notes: Available only to Nursing students.

PREREQUISITE(S)/COREQUISITE: Biology 30 and Chemistry 30 or equivalents.

REQUIRED TEXT/RESOURCE MATERIALS:

DELIVERY MODE(S): Lectures – A2: Mon. and Wed. 8:30 – 11:20, J229
B2: Tues. and Thurs. 10 – 12:50, J229

LEARNING OUTCOMES:
Upon successful completion of this course, a student will have a working knowledge of the structure and function of the human body.
COURSE OBJECTIVES:

1. To gain further understanding of the structure and function of the human body.
2. To develop critical thinking skills with respect to the anatomy and physiology of the human body.
3. Integrate clinical situations with the underlying physiological principles and concepts.
4. Demonstrate critical thinking skills in relation to the study of physiology.
5. To gain an understanding of anatomy and physiology that will facilitate future work in the medical field.

TRANSFERABILITY:

A list of institutions to which this course transfers (For example: UA, UC, UL, AU, GMU, CU, CUC, KUC. Please note that this is a sample and it must be replaced by your specific course transfer)

*Warning: Although we strive to make the transferability information in this document up-to-date and accurate, the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities. Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page [http://www.transferalberta.ca](http://www.transferalberta.ca) or, if you do not want to navigate through few links, at [http://alis.alberta.ca/ps/tsp/ta/tbi/onlinesearch.html?SearchMode=S&step=2](http://alis.alberta.ca/ps/tsp/ta/tbi/onlinesearch.html?SearchMode=S&step=2)

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

EVALUATIONS:

<table>
<thead>
<tr>
<th>Exam</th>
<th>Percentage</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam I</td>
<td>20%</td>
<td>In order to defer an exam due to illness</td>
</tr>
<tr>
<td>Exam II</td>
<td>25%</td>
<td>you will require a medical note.</td>
</tr>
<tr>
<td>Exam III</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit IF your grade is less than C-. 
<table>
<thead>
<tr>
<th>Alpha Grade</th>
<th>4-point Equivalent</th>
<th>Percentage Guidelines</th>
<th>Alpha Grade</th>
<th>4-point Equivalent</th>
<th>Percentage Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>90-100</td>
<td>C+</td>
<td>2.3</td>
<td>67-69</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>85-89</td>
<td>C</td>
<td>2.0</td>
<td>63-66</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>80-84</td>
<td>C-</td>
<td>1.7</td>
<td>60-62</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>77-79</td>
<td>D+</td>
<td>1.3</td>
<td>55-59</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>73-76</td>
<td>D</td>
<td>1.0</td>
<td>50-54</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>70-72</td>
<td>F</td>
<td>0.0</td>
<td>00-49</td>
</tr>
</tbody>
</table>

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to anatomy; The Chemistry of Life</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Orientation to Human Anatomy</td>
<td>Atlas A</td>
</tr>
<tr>
<td></td>
<td>- Introduction to physiology; Homeostasis and Feedback mechanisms</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>- Enzymes and Metabolism</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Anatomy of the Cell and Histology</td>
<td>3 and 5</td>
</tr>
<tr>
<td></td>
<td>Membrane Transport and Cellular respiration</td>
<td>4 and 26</td>
</tr>
<tr>
<td></td>
<td>Cellular Function – Protein Synthesis and DNA Replication</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The Integumentary System</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Bone Tissue</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Exam I (20%) - Sept. 20 – A2; Sept. 21 – B2</td>
<td>Weeks 1-3</td>
</tr>
<tr>
<td></td>
<td>The Axial and Appendicular Skeletal Systems</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Selected Joints</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>The Muscular System</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Muscle Tissue</td>
<td>11</td>
</tr>
<tr>
<td>Week</td>
<td>Topic</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>6</td>
<td>The Spinal Cord and Spinal Nerves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nervous Tissue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Somatic Reflexes</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td><strong>Exam II (25%) – Oct. 11 – A2; Oct. 12 – B2</strong></td>
<td><strong>Weeks 4 -6</strong></td>
</tr>
<tr>
<td></td>
<td>The Brain and Cranial Nerves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- CNS Function and Processing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Autonomic Nervous System</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sense Organs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Endocrine System</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The Circulatory System: Blood</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Lymphatic and Immune System</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td><strong>Exam III – 25% - Nov. 8 – B2; Nov. 9 – A2</strong></td>
<td><strong>Weeks 7 – 9</strong></td>
</tr>
<tr>
<td></td>
<td>The Circulatory System: The Heart</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Circulatory System: Blood Vessels</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>The Respiratory System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Urinary System</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The Digestive System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Female Reproductive System</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The Male Reproductive System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Female Reproductive System</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Human Development</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Final Exam (Scheduled by the Registrar's Office) - 30%</strong></td>
<td><strong>Weeks 10 - 14</strong></td>
</tr>
</tbody>
</table>

Copyright © 2009, Grande Prairie Regional College and its licensors.
STUDENT RESPONSIBILITIES:
The College Policy on Students Rights and Responsibilities can be found at https://www.gprc.ab.ca/about/administration/policies/

STATEMENT ON PLAGIARISM AND CHEATING:
Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at http://www.gprc.ab.ca/programs/calendar/ or the College Policy on Student Misconduct: Plagiarism and Cheating at https://www.gprc.ab.ca/about/administration/policies

**Note: all Academic and Administrative policies are available on the same page.**