This course syllabus is intended as a set of guidelines for (Course). Both North Lake College and your instructor reserve the right to make modifications in content, schedule, and requirements as necessary to promote the best education possible within prevailing conditions affecting this course.

Instructor Information:

Maria Serra, M.S.
mserra@dccc.edu
972-273-3235
Office C352

Office Hours: Upon Request

Please allow 12 hrs (24 hrs. on weekends) for an email response, email messages are checked several times during the day on most days, however, an immediate response may not always be possible. Always include: 1.- your name, 2.- class and section number, and 3.- a subject on your email message, this will allow me to respond immediately if the message warrants an urgent quick response.

SCIENCE LEARNING CENTER: P333

Free tutoring. Free internet access (for science use ONLY).
Access to older version, sometimes current versions, text books (Provided your teacher has given us one to use)
Great place to study
Interactive CD ROMS (North Lake College ID required)
Video Tapes (North Lake College ID required). DVD’s (North Lake College ID required)
On-site, and online tutoring available, Visit tinyurl.com/sconlinetutors for a video on how to access online tutoring.

The Science Learning Center provides student services in the following subjects (majors and non majors): Biology, Botany, Microbiology, Anatomy and Physiology, Chemistry, Geology, Botany, Physics and Ecology.
The center is located in P-333 & P-334 and offers various resources all of which are free to the students. The SLC features tutors, software, videos, CDROM’s, internet, models, places to study quietly, places for group work, and other materials to assist in science classes. In order to access resources of the SLC a North Lake College ID Card is required. The subject specific schedule of tutors is updated every semester and is located at
www.northlakebiology.com/SLC_tutor_schedule.htm
When students attend SLC we ask that they sign in and out. This data helps us keep the center stocked, running, and most of all, free of charge! A quiet study room is now available

Hours of operation – M-R 8to8, F 9-3 and Sa 9-3

Contact information: Center Phone: 972-273-3273 Coordinator: Amanda Mellow

www.northlakebiology.com
Course Information

Course title: BIOL 2402 – Anatomy and Physiology 2
Section numbers: 76428
Credit hours: 4
Class meeting time: Lecture MTWRFSU ONLINE
Lab MTWRFSU ONLINE

DATES TO REMEMBER:
SEMESTER STARTS: 7/8/19     SEMESTER ENDS: 8/08/19
CENSUS DATE: 7/11/19
DROP DATE: 7/30/19

Required Textbooks and Materials

Lecture: Students have three options:


2.- **Required: Connect code with ebook package. ISBN: 9781259996351

3.- Another college level Human Anatomy and Physiology textbook can also be used, but students will still need to purchase the ‘Connect Code”.

Options to purchase McGraw-Hill Connect Code:
The course requires students to purchase McGraw-Hill Connect access code, which comes with the Reveal virtual lab feature and an ebook.

**The Connect code is valid for 1 year, if you have purchased the code for another A&P course within a year your code should still be valid.

How to purchase the McGraw Hill Connect Code? Here are the options:

1.- The access code can be purchased at the McGraw Hill web site (see below). Once at the MCGH website scroll down and click on the 'register now' button.
   http://connect.mheducation.com
2. You can also copy and paste on your server the course’s Connect web site:

http://connect.mheducation.com/class/m-serra-biol-2402_76428

** If you purchase the code directly through McGraw Hill, The ISBN numbers should be any of the following:

ISBN: 9781259996351 or ISBN 1259670139

3. If you are purchasing the access code from other online shops or third-party vendors, the ISBN code will be any of the following:

13-digit ISBN: 9781259670138
10-digit ISBN: 1259670139

Once you have the MGH Connect code, you can access the class' online quizzes by clicking on the ‘Quizzes’ tab on eCampus and choosing a quiz. The virtual lab Reveal feature can be access by going to the McGraw-Hill class section website.

**Laboratory**

Lab will follow the “Reveal” feature of McGraw-Hill Connect. With assigned exercises, and power points. McGraw-Hill Connect code gives students access to this feature. In addition, there will be power points of anatomical models, and pictures of microscope slides. See the ‘Laboratory’ on the course’s eCampus site.

For more information on how to access MacGraw-Hill Connect, visit the course’s eCampus site and go to the “START HERE” tab.

**Course description: Prerequisite: BIOL 2401.**

This is the second course of a two-course sequence. Structure and function as related to the human circulatory, respiratory, urinary, digestive, reproductive, and endocrine systems are studied. Emphasis is placed on the interrelationships of these systems. This is a transferable course intended for those seeking to complete a Bachelor's Degree.

(3 Lec., 3 Lab.) **Coordinating Board Academic Approval Number 2607075103**

**Specific Course Student Learning Outcomes**

All students will participate in the following activities to assure that the Core Curriculum Intellectual Competencies and the Exemplary Educational Objectives are met. Professors may include additional activities to enhance the educational experience.
1.- Students will be expected to read their textbook, class notes, and other relevant material pertaining to the course. Evaluation of student’s reading and critical thinking skills will be through oral and written questions.

2.- Students will use college level writing skills when completing Clinical Cases and Chapter Assignments.

3.- Each student will have the opportunity at least once during the semester to use college level communication skills by answering oral questions pertaining to the material covered in class. In addition, while studying human bones, each student will be assigned a bone to introduce and present to the class using appropriate vocabulary and clear, coherent language.

4.- Students’ listening ability will be evaluated through the use of tests, practical exams, and oral questions.

5.- Students will use critical thinking methods while completing the Chapter Assignments which require students to analyze, organize, evaluate and manipulate information to be summarize and organize in the form of charts or short paragraphs.

6.- Computer literacy will be reinforced through Clinical Cases and Chapter Assignments which require students to search the web, produce electronic documents, and deliver information.

**Course-Level Student Learning Outcomes**

<table>
<thead>
<tr>
<th>Departmental SLO 1</th>
<th>Departmental SLO 2</th>
<th>Departmental SLO 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students at the Biology 2402 course level will demonstrate knowledge of the nervous system at 70% proficiency from both a written course exam and a laboratory practical</td>
<td>All students at the Biology 2402 course level will demonstrate knowledge of the skeletal system at 70% proficiency from both a written course exam and a laboratory practical</td>
<td>All students at the Biology 24012 course level will demonstrate knowledge of the muscular system at 70% proficiency from both a written course exam and a laboratory practical</td>
</tr>
<tr>
<td>EEO 1, 2, an&amp; 5 CCICs 1,2,5, &amp; 6 Gen Ed SLOs 1, and 2</td>
<td>EEO 1, 2, an&amp; 5 CCICs 1,2,5, &amp; 6 Gen Ed SLOs 1, and 2</td>
<td>EEO 1, 2, an&amp; 5 CCICs 1,2,5, &amp; 6 Gen Ed SLOs 1, and 2</td>
</tr>
</tbody>
</table>

**PROGRAM LEVEL OBJECTIVES FOR BIOL 2402**

BIOL 2402 develops the following objectives from the Texas Higher Education Coordinating Board:
COURSE SYLLABUS

BIOL 2402
SUMMER 2019

- Communication Skills: Written
- Communication Skills: Visual
- Critical Thinking Skills
- Empirical and Quantitative Skills

COURSE LEVEL STUDENT LEARNING OUTCOMES (SLO’s)
FOR BIOL 2402

BIOL 2402 supports the following learning outcomes from the Texas Higher Education Coordinating Board:

- Write in a style appropriate to audience and purpose, using the appropriate scientific and medical terms. SLO 1 Clinical Cases.
- Use of visual communication: charts, diagrams, and anatomical figures to interpret and communicate physiological principles. SLO 1 Clinical Cases
- Critical Thinking: Use creative thinking, inquire, and analysis to answer written application questions in lecture tests. SLO 2
- Empirical and Quantitative Skills: Use manipulation and analysis of numerical data to calculate and interpret pulmonary function test values during a lab exercise. SLO 3

Course Objectives

I. Student must be able to identify basic anatomy associated with each system and use appropriate vocabulary.
II. Student must be able to understand the basic physiology of each system and describe it with appropriate vocabulary.
III. Students must be able to integrate vocabulary, anatomy and physiology of the various systems.
IV. Students must demonstrate the ability to communicate their knowledge using appropriate vocabulary.

Course Outline

MODULE 1
Chapter 15: Special Senses: Olfaction, Gustation, Vision, Hearing, and Equilibrium
COURSE SYLLABUS
BIOL 2402
SUMMER 2019


MODULE 2
Chapter 21: The Cardiovascular System: Blood Vessels: Circulatory System Function, Structure of Blood Vessels, Control of Blood Flow in Tissues, Regulation of MAP,

MODULE 3

MODULE 4

MODULE 5
Chapter 27: Fluid, Electrolyte, and Acid-Base Balance: ICF and ECF Components, Primary Regulatory Hormones, Fluid Balance, Electrolyte Balance, Acid Base Balance, Acid Base Disturbances,

Evaluation Procedures:

1.- There will be five lectures tests during the semester. Tests will cover the lecture material and will consist of 80 multiple choice/matching/true false questions. Tests are computerized, timed (2.5 hours) and proctored at an approved testing center. See
Appendix A, page 11, for details. The lowest lecture grade will be dropped, 4 out of 5 tests will be counted towards the course grade. **The use of notes, cell phones, smart watches, or any other outside material is strictly prohibited during tests.

2.- Each of the chapters covered in lecture will have a corresponding lecture quiz. The quizzes are from McGraw-Hill Connect, they will consist of about 20 questions. The quizzes are not timed, and each has two attempts. Quizzes do not have to be finished in ‘one sitting’, students can save their work and return later to finish their quiz. Students are free to use notes, power points, and any other material to help them answer the quiz questions correctly. Students will need a McGraw-Hill Connect code to access the quizzes. None of the quizzes will be dropped, even if the Lecture Test corresponding to the quizzes is dropped, students are still responsible for the online quizzes for the chapters corresponding to the dropped lecture test. It is recommended that students take the on-line quiz before taking the lecture test.

3.- Four Lab Practical Exams will be given, each will consist of 50 multiple choice questions/exam. The exams are on-line, timed (2 hours), and must be taken at an approved testing center. See Appendix A on page 13 of this document for details. The Practical exam will use pictures from the Lab Power points, and from the Reveal feature of McGraw-Hill Connect. Note: all 4 lab Practical exams will be counted. At the end of the semester, a comprehensive, 75 questions, timed, at home test, can be used to replace the lowest Lab Practical exam. *Students taking their tests at a facility other than North Lake should inform the instructor via email during the first week of class. Students will be allowed one test extension per semester. The extension will be for 3 extra days. Any subsequent extensions (regardless of reasons) will be penalized 2

4.- Lab Quizzes, each laboratory chapter will have at least one on-line quiz. The quizzes consist of about 15 questions, are not timed, and there are two attempts permitted. Quizzes do not have to be finished in ‘one sitting’, students can save their work and return later to finish their quiz. Students are free to use notes, power points, and any other material to help them answer the quiz questions correctly. Students will need a McGraw-Hill Connect code to access the quizzes. It is recommended that students take the on-line quiz before taking the Practical test. None of the quizzes will be dropped.

5.- Discussion questions. Each lecture MODULE will have a corresponding Discussion forum with questions pertaining to the material presented in each chapter Students need to answer correctly one question/chapter to receive full credit for the discussions. Instructor will notify students if their answer is incorrect, answers can be corrected and changed up to the due date. None of the Discussion questions will be dropped, even if the Lecture Test corresponding to the Discussion questions is dropped, students are still responsible for the Discussion Questions for the chapters corresponding to the dropped
It is recommended that students answer the discussion questions before taking the lecture test.

**Grading Scale**

- A = 100 – 90 %
- B = 89 - 80 %
- C = 79 - 70 %
- D = 69 - 60 %
- F < 59%

**Exams and Assignments:**

| Written Examinations 4 of 5 lecture test | 10.0 % each | 40 % |
| Lecture On-line quizzes                  |             | 10%  |
| Discussion Questions                     |             | 10%  |
| 4 Lab Practicals                          | 7.5 % each  | 30 % |
| Laboratory Quizzes                       |             | 10%  |
| Total Points                               |                     | 100%|

**Course Outline: Laboratory**

**Practical Exam 1** covers: Special Senses and Endocrine System.

**Practical Exam 2** covers: Blood, Heart, and Blood Vessels

**Practical Exam 3** covers: Lymphatics, Respiratory, and Digestive Systems

**Practical Exam 4** covers: Urinary and Reproductive Systems.

**Course Assignments Outline and Evaluation Procedures**

<table>
<thead>
<tr>
<th>LECTURE MODULES 1-5</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Lecture Quizzes</td>
<td>1 quiz/chapter, 20 questions /quiz, no time limit, 2 attempts.</td>
</tr>
<tr>
<td>5 Lecture Tests</td>
<td>80 questions. Computer test to be taken at the Testing Center. Times 2.5 hrs/test</td>
</tr>
<tr>
<td>Discussion Questions</td>
<td>1 correct entry/chapter by due date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRACTICAL EXAMS LAB</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Lab Quizzes</td>
<td>1 quiz/chapter, 15 questions/quiz, not time limit, 2 attempts.</td>
</tr>
<tr>
<td>4 Lab Practicals</td>
<td>50 questions. Computer test to be taken at the Testing Center. Timed 2 hrs./test</td>
</tr>
</tbody>
</table>

**Note:** Lowest Lecture Test grade will be dropped.
**Note: None of the 4 Practical lab exams, 5 Discussion forums, or lecture and lab quizzes are dropped.

**PLEASE BE AWARE THAT:**
- All exams (lecture and lab) are to be taken at North Lake Testing Center, or another approved Testing Center. See Appendix A, page 11, for details.
- Exams, quizzes, and Discussion questions will be available until their due date. Refer to schedule on eCampus for due dates of all assignments.
- **All tests are computerized, and proctored. Students should not have access to internet searches during testing. Accessing internet searches during testing is cheating, and the issue will be address as a serious academic offense. Testing Centers monitor students for these types of incidents.
- **The use of notes, cell phones, smart watches, or any other outside material is strictly prohibited during tests.
- EXTRA CREDIT: Extra credit questions will be included in all exams. Bonus points will not exceed 3% of the final grade.
- **Note: this instructor does not offer xtra credit to individual students

**TESTING CENTER INFORMATION AND POLICIES**

(A425) or call 972-273-3160.

**Monday – Thursday:** 8:30 a.m. – 8:00 p.m.
No tests will be issued after 7:00 p.m. Other cut-off times may be in effect for specific exams by the instructor's direction. All exams collected at 8:00 p.m.

**Friday - Saturday:** 8:30 a.m. – 3:30 p.m.
Other cut-off times may be in effect for specific exams by the instructor's direction. No tests will be issued after 2:30 p.m. All exams collected at 3:30 p.m.

**Sunday:** CLOSED

*Contact Testing Center for hours of operation during the holidays.*

If you need special accommodations you must submit a request to the Disability Services Office in person (A430) or by phone at 972-273-3165. Visit [http://www.northlakecollege.edu/services-and-resources/advice-and-assistance/Pages/disability-services.aspx](http://www.northlakecollege.edu/services-and-resources/advice-and-assistance/Pages/disability-services.aspx) for more information.

If your instructor requires you to complete an exam in the Testing Center, be sure to have the following information when you request your test.
COURSE SYLLABUS
BIOL 2402
SUMMER 2019

• Instructor’s name
• Subject and course number (exp: HIST 1301)
• Exam number (1st, 2nd, 3rd, etc.)
• Exam deadline (Get this information from your instructor. The testing staff can not “look up” this information on computers.)

You should also bring the following supplies.

• Pencil and eraser
• Scantron answer sheet (If required)
• A Test Request Form to be completed at the Testing center.
• Only battery operated 4 function, non programmable scientific or TI83/TI 84 calculator are allowed (if permitted by instructor).
• Money for coin-return lockers (quarter). Please do not share lockers.
• Scratch paper will be provided (if permitted by instructor). Ask Testing Center personnel.

Important: Government- or school-issued photo identification is required & enforced.

• You may not bring personal items into the Test Center. This includes bags, cell phones and pagers. Coin-reimbursable (quarter) lockers are available for student use. Please do not share lockers.

• Please show courteous and cooperative behavior while using the services provided by the Testing Center.

• Do not bring children to the testing center. You must make arrangements for the care of your children prior to your exam date. The police department will be notified of any unattended children.

• Do not take any testing materials with you when you leave the Testing Center. This includes the test, answers, charts, scratch paper. These items will be attached to your test.

Academic Dishonesty: The Dallas County Community District has established procedures and guidelines to protect the security and integrity of all exams. All incidents of academic dishonesty are documented and reported to the instructor, the Director of Testing and the Dean of Student-Enrollment. ** The use of notes, cell phones, smart watches, or any other outside material is strictly prohibited during tests. For more information on what constitutes “Academic Dishonesty” please consult page 13 of this syllabus, and the ‘Student Handbook’.

APPENDIX A
All lecture and lab practical tests must be taken in a DCCCD approved testing center. Students have the following choices of testing facilities. Students choosing options 2 or 3 must inform instructor during the first week of class:

1. Take the tests at North Lake Testing Center

2. Take the tests at another DCCCD Testing Center facility. Please inform your instructor within the first week of class (or before) the name of the DCCCD college where the student wishes to take the test. The instructor will initiate the necessary cross campus requests.

3. Take the test at an approved facility. Student must turn in a ‘Proctor Nomination Form’ within the first week of class. Use the link below to access the form. Be aware that some proctoring centers charge students a fee to proctor tests. [https://online.dcccd.edu/aboutdco/forms/documents/proctorform.pdf](https://online.dcccd.edu/aboutdco/forms/documents/proctorform.pdf)

**Note that ProctorU is not an approved proctoring method.

**Individuals cannot act as proctors, the only approved proctoring centers are Testing Centers which are set up with computers fitted with lockdown browsers, cameras, and other test security features.

**Students are responsible for keeping informed of Testing Centers or Proctoring Centers schedules and availability.

**Discipline/ Course/ Department/Policies

**WHAT IS EXPECTED OF STUDENTS:**
This is a fast paced, online class, which means good planning, and sticking to a schedule is of the essence.

** Students must read chapters and exercises ahead of time.

** You should plan to cover one chapter of lecture or lab per day. This is a fast-paced course; don’t fall behind.

** A sample schedule of work can be found on eCampus, under the “Syllabus and Schedule” tab. Following this schedule will help you stay on track.

** Take advantage of all the xtra study material, worksheets, review questions, etc. these will help you gage your level of mastering of the material.

** Use the Science Learning Center, they offer on-site tutors, and on line tutoring. See page 1 of this syllabus for more information.
**Students are responsible for keeping informed of Testing Centers schedules and availability.**

Please communicate with your instructor if you are having any problems, don’t wait to the end of the semester to address issues.

**Email communications are sent weekly to the whole class.** All email communication that I send to the class is also displayed in the ‘Announcements’ tab of eCampus. Check the tab often to make sure you are not missing any communication, or reminder. Emails sometimes are overlooked or lost.

If you request a letter of recommendation, allow 2 weeks for the letter to be crafted. The instructor reserves the right to decline writing a letter of recommendation.

**Attendance:**
This is an on-line course, however, you are expected to participate in the discussion questions, and complete on-line quizzes on time, which will give me an idea of whether you are pacing yourselves and keeping up with the work.

**eMail Etiquette**
When emailing your instructor, please provide your name, course number, and course section on the ‘Subject’ line.

As you write your emails, please remember that you are preparing for a professional career; therefore, you will be expected to make an effort to communicate in a manner consistent with your future goals; **any written communication should be conducted using proper English grammar, spelling, and punctuation.**

Instructor checks emails at least twice a day during weekdays, expect a response within 12 hours of sending an email. On the weekends, emails may be checked less frequently, and it may take 24 hours to get a response.

**Children in Class and Unaccompanied Children Policy:**

The institution strives to protect an environment most conducive to teaching and learning for all enrolled students. Children who are taking part in organized scheduled activities or who are enrolled in specific classes are welcomed. Minor children, however, should not be brought to the college. This practice is disruptive to the learning process. In the case of an emergency where the student-parent has no alternative but to bring the child to the campus, classroom faculty or the administrative heads of other units have full discretion as to whether a child may be allowed to quietly stay in the location. These individuals (classroom faculty or administrative heads) may require the student-parent to remove the children from the setting if the presence of the child is deemed to be disruptive to the learning process. For reasons of security and child welfare, the
institutions will not permit unattended children be left anywhere on the premises. Parents who have problems with childcare should visit the advisement/counseling center to receive referrals to childcare services in the area.

Study Tips

- **Don’t procrastinate.** Start today (not next week) to read and study.
- **Read** your textbook. *Go over headings, diagrams and charts.* Take advantage of all the review material provided.
- Make a **vocabulary** with definitions or identifications. Your medical vocabulary should be expanding exponentially during this course. You can find charts on line to use for practice in labeling parts.
- **Practice being the “expert”** with your family and friends. Most people are very interested in the human anatomy and physiology. Tell them about what you are learning. Explaining a concept to someone else helps you remember it longer.

**ECAMPUS**

1. Class notes and announcements will be posted on the web on ECAMPUS at "ecampus.dcccd.edu".
2. You are expected to access "ECAMPUS" on a regular basis to be up to date with the class information.
3. Make sure you enter your email address. Let me know if you need help with "ECAMPUS".
4. All students can apply for a free email address/internet access at the Computing Center.

**INSTITUTIONAL POLICIES**

*Access the following link to read ‘Institutional Policies’*

  The link will give you information regarding, and more items not listed:
- Academic Dishonesty
- Counseling Services
- Veterans Services
- Disability Services
- Drop/withdrawal policies
- Financial Aid
- Academics Skill Center
- The Academic Skills Center
EXEMPLARY OBJECTIVES:

The objective of the study of a natural sciences component of a core curriculum is to enable the student to understand, construct and evaluate relationships in the natural sciences and to enable the student to understand the bases for building and testing theories.

This course satisfies all of the Exemplary Educational Objectives for the natural sciences. They are

1. To understand and apply method and appropriate technology to the study of natural sciences.
2. To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories.
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture

Core Curriculum Intellectual Competencies (CCIC): This course reinforces all 6 of the Core Curriculum Intellectual Competencies defined by the Texas Higher Education Coordinating Board.

1. **READING**: Reading at the college level means the ability to analyze and interpret a variety of printed materials--books, articles and documents. A core curriculum should offer students the opportunity to master both general methods of analyzing printed materials and specific methods for analyzing the subject matter of individual disciplines.
2. **WRITING**: Competency in writing is the ability to produce clear, correct and coherent prose adapted to purpose, occasion, and audience. Although correct grammar, spelling and punctuation are each a sine qua non in any composition, they do not automatically ensure that the composition itself makes sense or that the writer has much of anything to say. Students need to be familiar with the writing process including how to discover a topic and how to develop and organize it, how to phrase it effectively for their audience. These abilities can be acquired only through practice and reflection.
3. **SPEAKING**: Competence in speaking is the ability to communicate orally in clear, coherent and persuasive language appropriate to purpose, occasion and audience. Developing this competency includes acquiring poise and developing control of the
language through experience in making presentations to small groups, to large groups and through the media.

4. **LISTENING**: Listening at the college level means the ability to analyze and interpret various forms of spoken communication.

5. **CRITICAL THINKING**: Critical thinking embraces methods of applying both qualitative and quantitative skills analytically and creatively to subject matter in order to evaluate arguments and to construct alternative strategies. Problem solving is one of the applications of critical thinking, used to address an identified task.

6. **COMPUTER LITERACY**: Computer Literacy at the college level means the ability to use computer-based technology in communicating, solving problems and acquiring information. Core-educated students should have an understanding of the limits, problems and possibilities associated with the use of technology and should have the tools necessary to evaluate and learn new technologies as they become available.

[http://www.dcccd.edu/Employees/Departments/EA/Academic%20Programs/Core%20Curriculum/Faculty%20Resources/Pages/default.aspx](http://www.dcccd.edu/Employees/Departments/EA/Academic%20Programs/Core%20Curriculum/Faculty%20Resources/Pages/default.aspx)

**Disclaimer**: The instructor reserves the right to amend this syllabus as necessary.