## GENERAL INFORMATION

<table>
<thead>
<tr>
<th>College Name</th>
<th>North Lake College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division</td>
<td>Math Science</td>
</tr>
<tr>
<td>Semester/Term &amp; Year</td>
<td>Spring 2015</td>
</tr>
</tbody>
</table>

## INSTRUCTOR INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Matthew A. Dempsey – Associate Dean of Math and Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCCD E-mail</td>
<td><a href="mailto:mdempsey@dcccd.edu">mdempsey@dcccd.edu</a></td>
</tr>
<tr>
<td>Address</td>
<td>P-333A</td>
</tr>
<tr>
<td>Telephone</td>
<td>972.273.3279</td>
</tr>
<tr>
<td>Website(s)</td>
<td><a href="http://ecampus.dcccd.edu">http://ecampus.dcccd.edu</a> and <a href="http://www.northlakecollege.edu/hawaii">http://www.northlakecollege.edu/hawaii</a></td>
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## COURSE INFORMATION

<table>
<thead>
<tr>
<th>Course Number</th>
<th>BIOL 1406</th>
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<tbody>
<tr>
<td>Section Number</td>
<td>71426</td>
</tr>
<tr>
<td>Credit Hours</td>
<td>4</td>
</tr>
<tr>
<td>Class Meeting</td>
<td>Hybrid On-Line Lecture</td>
</tr>
<tr>
<td>Time</td>
<td>Lab F 8:30am to 11:20am C322</td>
</tr>
<tr>
<td>Course Title</td>
<td>Biology for Science Majors 1</td>
</tr>
<tr>
<td>Course Description</td>
<td>An introductory survey of contemporary biology for students majoring in the sciences. Topics emphasized will include the chemical basis of life, structure and function of cells, energy transformations, and molecular biology and genetics. (3 Lecture, 3 Lab.). Coordinating Board Academic Approval Number 2601015103</td>
</tr>
<tr>
<td>Course Prerequisites</td>
<td>One of the following must be met: (1) Developmental Reading 0093 AND Developmental Writing 0093; (2) English as a Second Language (ESOL) 0044 AND 0054; or (3) have met Texas Success Initiative (TSI) Reading and Writing standards AND DCCCD Writing score prerequisite requirement.</td>
</tr>
</tbody>
</table>
| Program Level Objectives | PROGRAM –LEVEL OBJECTIVES FOR BIOL 1406  
Biology 1406 develops the following objectives from the Texas Higher Education Coordinating Board:  
Communications: Written  
Communications: Visual  
Critical Thinking  
Empirical & Quantitative Skills |
|---|---|
| Measurable Student Learning Outcomes (SLOs) | 1. Demonstrate the correct use of the compound light microscope; the ability to set up, locate a specimen, focus correctly and prepare the microscope for storage after use.  
Laboratory demonstration, practical application by use of the microscope through guided activities, practice with microscope use in laboratory.  
Timed individual demonstration of use. Correct application on 80% of measured items. Evaluation based on a rubric. |
| | 2. Describe the unique characteristics of water that make it essential to life on earth.  
Assigned readings, lecture and discussion in class, related laboratory activities.  
Ten question quiz to be administered after the completion of the topic. The class goal is 70% correct response. |
| | 3. Demonstrate an understanding of the significance of cellular respiration and an understanding of the major energy transforming events of the process.  
Assigned readings, lecture and discussion in class, play out the major steps of the aerobic respiratory pathway and related laboratory activities.  
Ten question quiz to be administered after the completion of the topic. The class goal is 70% correct response. |
| State Mandated SLOs | BIOL 1406 Biology for Science Majors I (lecture)  
Learning Outcomes  
Upon successful completion of this course, students will:  
Describe the characteristics of life.  
Explain the methods of inquiry used by scientists.  
Identify basic requirements of life and the properties of the major molecules needed for life.  
Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.  
Describe the structure of cell membranes and the movement of molecules across a membrane.  
Identify the substrates, products, and important chemical pathways in metabolism.  
Identify the principles of inheritance and solve classical genetic problems.  
Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins. |
Describe the unity and diversity of life and the evidence for evolution through natural selection.

**BIOL 1406 Biology for Science Majors Laboratory I (lab)**

Learning Outcomes

Upon successful completion of this course, students will:

- Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- Communicate effectively the results of scientific investigations.
- Describe the characteristics of life.
- Explain the methods of inquiry used by scientists.
- Identify the basic properties of substances needed for life.
- Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
- Describe the structure of cell membranes and the movement of molecules across a membrane.
- Identify the substrates, products, and important chemical pathways in metabolism.
- Identify the principles of inheritance and solve classical genetic problems.
- Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
- Describe the unity and diversity of life and the evidence for evolution through natural selection.

**Course Outline**

**Exam 1**
1. Introduction: Themes in the Study of Life
2. The Chemical Context of Water
3. Water and Life

**Exam 2**
4. Carbon and the Molecular Diversity of Life
5. The Structure and Function of Large Biomolecules
6. A Tour of the Cell

**Exam 3**
7. Membrane Structure and Function
8. An Introduction to Metabolism
9. Cellular Respiration and Fermentation

**Exam 4**
10. Photosynthesis
11. Cell Communication
12. The Cell Cycle

**Exam 5**
13. Meiosis and Sexual Life Cycles
14. Mendel and the Gene Idea
15. The Chromosomal Basis of Inheritance

**Exam 6**
16. The Molecular Basis of Inheritance
17. From Gene to Protein
**Required or Recommended Materials**

**Lecture Text:** Biology (North Lake College Custom Version) *

*My note here please consider using the larger edition of the book, it will greatly assist you in future classes.

**Author:** Campbell/Reece  
**ISBN:** 9781269871174  
**Copyright Year:** 2011  
**Publisher:** Pearson Learning Solutions

*You do not need the access code! Mastering Biology may not be supported this spring.*

You may purchase the larger volume that contains both 1406 and 1407 (recommended if you are majoring in biology).

**Laboratory Text:** General Biology Lab Manual 1406 (North Lake College Custom Version)  
**Author:** Perry  
**ISBN:** 9781305007833  
**Copyright Year:** 2013  
**Publisher:** Cengage Learning

**Evaluation Procedures**

**Lecture:** Your lecture is based on a combination of 6 lecture exams 100pts each and a 100 point “misc” category that will be comprised of exercises, journals, quizzes, Student Learning Outcome quizzes, surveys etc. This will affect the way things are calculated in the grade center MY GRADES. Let me put this another way, you may use the MY GRADES section of blackboard to preview how you have done on individual items, however, it does not take into account the weight items carry. So do not use MY GRADES to determine anything other than your performance on individual efforts. Please pay attention to due dates for quizzes, journals, and all other assignments. When an item expires, it will no longer be available to take. Each exam is valued at 100. Additional graded projects may be assigned during the semester, but the grade is still a percentile grade of the total possible accumulated points. Your lecture average is 70% of your total grade in Biology 1406. Lecture exams will be given in the testing center at North Lake College’s central campus and must be completed before the deadline expires. The deadline for the first 5 exams in this class is the Friday before finals week. The final lecture exam (not cumulative) will be due before the close of testing center the Thursday of finals week. **THERE WILL BE NO EXCEPTIONS, EXTENSIONS, OR MAKE-UP EXAMS.** You will be given prompts that will help you pace yourself, certainly lab will help you with that.

Your lecture grade (70% of final grade) is calculated as follows.

Lecture Exam 1 (your score as a percentage 100)  
Lecture Exam 2 (your score as a percentage 100)
Lecture Exam 3 (your score as a percentage 100)
Lecture Exam 4 (your score as a percentage 100)
Lecture Exam 5 (your score as a percentage 100)
Lecture Exam 6 (your score as a percentage 100)
Lecture Misc (= Quiz Avg 40% Journal Avg 30% SLO’s 15% Survey/Participation/Misc 15%)

All 7 of these categories are averaged giving your lecture percentage.
*Bonus points are possible, and will added to lowest quiz score by default. Check announcements or ask about opportunities.

Laboratory: Your lab grade is based on three or four lab exams (TBD by your lab instructor) and a combination of lab reports, pre quizzes and post quizzes may be given during the semester. Each lab exam is valued at 100 points. Daily work may be a combination of a formal lab report, a pre-quiz and a post-quiz. Pre-quiz are valued at 5 points, post-quiz at 10 points and formal lab reports at 20 points. Additional graded activities may be assigned during the semester. Your grade in lab is based on a percentile of all graded exams, quizzes, reports and other projects as may be assigned during the semester. Your lab grade is 30% of your total grade in Biology 1406. There is no makeup for lab exams, pre-quiz or post quizzes. Your lab instructor has the right to modify this formula.

Grading Scale
Your final grade will be a combination of both lecture and lab, with lecture representing 70% and lab 30% of the final grade.
90-100=A
80-89=B
70-79=C
60-69=D
59 and below=F

Exams and Assignments
Lecture:
All units will have quizzes that correspond to the chapters. Please keep up with the work in a timely manner. You may be prompted during the semester if you are not keeping up. Some units will have journal entries, related assignments and/or SLO quizzes. These are assigned to help you better understand your material, so have them completed before you take the exam.
Please consult the individual folders as well as keep current with announcements regarding these assignments. NEW- All exams are computer based, no materials needed. You will report to the testing center to take the computer based exam. They will enter in the password for you. Please adhere to all testing center procedures. Again, given the flexibility of this class and format I repeat: THERE WILL BE NO EXCEPTIONS, EXTENSIONS, OR MAKE-UP EXAMS. Given that all assignments need to be completed before taking the exam... this extrapolates to quizzes, journals, and all related assignments.

Unit 1
Exam Due Date: Week 3
Quizzes, journals, and all related assignments due before taking the exam.
Unit 2
Exam Due Date: Week 6
Quizzes, journals, and all related assignments due before taking the exam.

Unit 3
Exam Due Date: Week 9
Quizzes, journals, and all related assignments due before taking the exam.

Unit 4
Exam Due Date: TBA
Quizzes, journals, and all related assignments due before taking the exam.

Unit 5
Exam Due Date: TBA
Quizzes, journals, and all related assignments due before taking the exam.

Unit 6
Exam Due Date: TBA
Quizzes, journals, and all related assignments due before taking the exam.

Drop Date – April 16th, 2015

The first exam is set, however, given the best adjustment for the level of completion, the subsequent exam dates are subject to alteration.
Laboratory: Please see your lab instructor for a calendar and complete list of assignments.

Attendance Policy
While lecture is not attended in person, students should login and check e-campus at least once a week. This will be monitored and assessed as part of your participation element in lecture. Since this class is a hybrid, laboratory attendance is required. All responsibility for completing the assignments is that of the student. Attendance will be taken at the beginning of lab classes. No absence is permitted from lab without penalty except in extreme circumstances. Your laboratory instructor will review lab attendance and the makeup policy at your first lab. Laboratory units cannot be completed without laboratory attendance.

INSTITUTIONAL POLICIES

ADA Statement
If you are a student with a disability and/or special needs who requires accommodations, please contact the college Disability Services Office.

Religious Holidays
Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.

Academic Honesty
Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.

As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog. More information is available at https://www1.dcccd.edu/catalog/ss/code.cfm.
Withdrawal Policy (with drop date)
If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by (semester’s drop date). Failure to do so will result in your receiving a performance grade, usually an "F." If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a "W" (Withdraw) in each class dropped.

STOP BEFORE YOU DROP
For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than six courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated six non-exempt drops, you cannot drop any other courses with a “W.” Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access:
https://www1.dcccd.edu/coursedrops

Drop Date – April 16th, 2015

Repeating this Course
Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class may not be repeated for the third or subsequent time without paying the additional tuition. Third attempts include courses taken at any of the Dallas County Community Colleges since the Fall 2002 semester. More information is available at:
https://www1.dcccd.edu/catalog/ss/oep/third_attempt.cfm.

Financial Aid
Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

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

Counseling Services
Counseling services for personal issues are provided to all students currently enrolled at North Lake College at NO CHARGE. These services are provided by or supervised by licensed professionals who are bound by confidentiality (within ethical parameters). With the assistance of a counselor, students are able to identify, understand, resolve issues and develop appropriate skills. To make an appointment call 972-273-3333 or go to A 311.

For additional information go to:
http://northlakecollege.edu/services-and-resources/health-and-wellness/counseling-services/Pages/default.aspx
E-Mail Policy

Email: mdempsey@dcccd.edu

You can expect a 24hr turn around for your email during the business week (assuming I am not also experiencing a technical difficulty).

You can expect a 48hr turn around on the weekends, again technology permitting.

If you do not hear back from me in a timely manner, please call 972-273-3279 (my office phone), perhaps the internet is broken.

Please, as with all communications in class, keep it classy and respectful.

Discussion Board responses, emails, and all other correspondence among faculty and students enrolled in this class are expected to conform to the level of conduct that would be expected in a regular classroom. Students should feel free to express disagreement with the instructor and other students but it must be done in a manner which is not verbally abusive, threatening, or harassing. Communication among students is encouraged but must end if one of the parties requests that it be terminated.

Students will not send unsolicited email espousing a cause, religion, or activity to other class participants and will not add other class participants to any listserves or other entity which distributes unwanted email or material.

I repeat for the third time: THERE WILL BE NO EXCEPTIONS, EXTENSIONS, OR MAKE-UP EXAMS. Given that all assignments need to be completed before taking the exam... this extrapolates to quizzes, journals, and all related assignments.

Violation of these guidelines may result in disciplinary action against the offending student. This action can include termination of the student's participation in the class and a grade of F.

With Skype, please feel free to disable your video feed.

I will be taking the class, the gradebook, and all material down Friday morning of finals week. This means if you wish to have access to your grades, your assignments, your journals etc... you must preserve this before that before I take the class off-line. Your final grade calculation will be done that weekend and posted to econnect.dcccd.edu (NOT ECAMPUS) in a timely manner.

Science Learning Center

The Science Learning Center provides student services in the following subjects (majors and non-majors): Biology, Botany, Microbiology, Anatomy and Physiology, Chemistry, Organic Chemistry, Geology, Physics, Nutrition and Ecology.
The center is located in P-333, P-334 and P-340; offering 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 the front of the SLC.

When students attend SLC we ask that they sign in and out. These data help us keep the center stocked, running, and most of all, free of charge!

**Hours of operation:**
Spring/Fall semester: M - R 9 am to 7 pm, F & Sa 9 am – 3 pm
Maymester and Wintermester: M – R 2 pm – 6 pm
Summer I & II: M – R 2 pm – 7 pm

**Contact information**
Center Phone: 972-273-3273
Coordinator: Tara Arrington

Hawaiian Field Studies

If you are interested in taking science to the next level, hands-on, join me and the rest of the Hawaiian Field Studies crew this summer. Program basic information is as follows.

The Hawaiian Islands are a paradise rich with magnificent hotels, sandy beaches, brilliant sunsets and some of the best recreational and relaxation spots on earth. Beyond the tourist attractions, though sometimes one and the same, lies a natural wonder of botanical rarities, explosive geological features and themes of evolution, adaptation, conservation and extinction. Born from the sea floor in a continuous chain of volcanoes, the Hawaiian Islands exist today as a window into biological and geological processes that tell the story of life on earth.

Join us in the Hawaiian islands with the opportunity to study in this unique environment and earn 16 college credit hours!

Mahalo nui loa (thank you)

**Proposed 2015 Program Information**
COMING SOON THIS TRIP IS STILL IN THE DISTRICT APPROVAL PROCESS

BASIC INFORMATION
16 College Credit Hours
3 Islands (Oahu or Maui, Hawaii & Kauai)
Travel Dates for '15
6/15 - 6/29 (Updated as of 8/25/2014)*

PERKS (Besides 16 credit hours and two weeks in Hawaii)
4hrs of the Green Diploma – Society
8hrs of the Green Diploma – Environment
Service Learning Certificates
Use of a North Lake SLR Digital Camera prior to and during the field studies.

STEPS TO JOIN
1. E-mail the program to be added to the list hawaii@dcccd.edu
2. Submit a $500 deposit (check, mail, or credit card) Deposit is refundable until classes begin in March.

PRE-TRIP CLASSES
TBA - Likely 10 ranging from March to June, all on the weekends.*

PAYMENT INFORMATION*
All fees due by April 1, 2015.
Student Fee $TBD, Approximately $500 Deposit + $1400 Balance
Airline Package - $900 to $1100* & Airline to and from HNL – Rates vary
Tuition - $832* for in county residents. (Out of county may be eligible for in-district rates)
For complete fee explanations, due dates and up to date information, email or call.

COURSES
BIOL 1411 4hrs - Intro Botany - Dempsey
BIOL 2406 4hrs - Environmental Bio - Dempsey
GEOL 1401 3hrs - Earth Science - Kubicek
ARTS 2356 - Digital Photography - Jenkins
PHED 1123 - Walking for Fitness - Joutras
Total - 16 Credit Hours*.
*Students must enroll in all courses to participate in the program.

Accepting deposits now, until the trip fills. After filling the first three vans, a waiting list will be established and new students added six at a time. 24 Students MAX.

Contact Information
E-Mail: hawaii@dcccd.edu
Green Diploma Course

Green Diploma
The green diploma is a graduation distinction awarded for the successful completion of designated “green” courses. The curriculum for green courses includes assignments and teaching methodology focused on the triple bottom line of society, economy, and environment. Faculty members pledge to go paperless and reduce each course’s environmental impact. Students who earn the Green Diploma wear a green cord at graduation to recognize their achievement.

Requirements for earning the Green Diploma

- 15 college credit hours of "green" coursework
- grade average of "C" or better
- at least one class from each category of sustainability: environmental, economic, social

"Green" courses are offered in a variety of programs, and course availability varies by semester. View the complete green catalog (PDF).

This course satisfies four hours of the green diploma in the credit of sustainable environment.