BIOL 2371.001 – Principals of Evolution  
Department of Life Sciences  
Summer II 2016

A. COURSE INFORMATION
Course number/section: BIOL 2371.001  
Class meeting time: 8:00-9:55 am MTWR  
Class location: EN 107  
Course Website: https://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION
Instructor: Bart Cook III, Ph.D.  
Office location: EN 309  
Office hours: 7:00-8:00 am MTWRF  
Telephone: 361-825-2683  
e-mail: bart.cook@tamucc.edu  
Appointments: 10:00-11:00 am F

C. COURSE DESCRIPTION
Principals of Evolution –BIOL 2371 is a lower division lecture course that examines aspects of original evolution placing particular emphasis on adaption, diversity, speciation, selection, variation and philosophy. Upon completion of the course, students will be expected to:

- Understand the history and development of the “modern evolutionary synthesis”
- Describe different modes and tempos of evolutionary change.
- Explain how the random heritable variation occurs in organisms
- Discuss how population genetics is the basis for treating evolution quantitatively.
- Explain how the organisms adapt to different and changing environments
- Use examples to illustrate basic trends in evolution (e.g., extinction, ecological release, competitive exclusion, gradualism, punctuated equilibrium). Discuss the relationship between evolution, systematics and development.

D. PREREQUISITES AND COREQUISITE
BIOL 1407 pre-requisite required

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES
Kardong, Kenneth 2008 2nd edition  
An Introduction to Biological Evolution, McGraw Hill, Boston
F. INSTRUCTIONAL METHODS AND ACTIVITIES
There will be three (3) lecture exams equally weighed during the semester. The mean (-x) of two highest test scores represent the student course grade. All three (3) exams must be taken.

In general there will be no make up exams. The only exceptions are make up lecture exams based on prior approval of the instructor with a stipulated date for the make up exam. The exceptions will be made only for students whose exams were in direct conflict with a university sanctioned activity.

G. MAJOR COURSE REQUIREMENTS AND GRADING
The following grade scale will be used in determining the course grade:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
</tr>
<tr>
<td>B</td>
<td>80-90%</td>
</tr>
<tr>
<td>C</td>
<td>70-80%</td>
</tr>
<tr>
<td>D</td>
<td>60-70%</td>
</tr>
<tr>
<td>F</td>
<td>0-60%</td>
</tr>
</tbody>
</table>

At the discretion of the instructor, “curve points” may be added to the students final class average. If “curve points” are given each and every student will receive the same number of points. No extra credit is permitted.

H. COURSE CONTENT/SCHEDULE
BIOLOGY 2371
Reading Assignment

<table>
<thead>
<tr>
<th>Chapters</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro to Biological evolution, Historical Development</td>
</tr>
<tr>
<td>3,8</td>
<td>Hereditary, Inheritance, Basis Genetics, Mutations</td>
</tr>
<tr>
<td>4</td>
<td>Chemical basis of life, chemical coding</td>
</tr>
<tr>
<td>12</td>
<td>Populations, dynamics ad some the factors influencing</td>
</tr>
<tr>
<td>3, Appendix 1</td>
<td>Cell Division, review of mitosis and meiosis</td>
</tr>
<tr>
<td>7,8</td>
<td>Natural selection, patterns, variation, Genetic drift</td>
</tr>
<tr>
<td>9, 10</td>
<td>Origin of species and subspecies co-evolution</td>
</tr>
</tbody>
</table>
The History and Origin of Life
On Earth

Pattern of Evolution Extinction

IMPORTANT NOTICE:
Every student is urged to keep abreast of and all opportunities about scholarships and research opportunities:
To subscribe to this information listserve:
Send an email to: opportunities-list-request@sci.tamucc.edu
In the subject field above, type: Subscribe

I. COLLEGE AND UNIVERSITY POLICIES

- Academic Integrity (University)
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

- Statement of Civility
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.
• **Deadline for Dropping a Course with a Grade of W (University)**
The grade of W will be assigned to any student officially dropping a course, by **July 22, 2016**. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation **WILL NOT** automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that **must** submitted. No student is eligible to receive a W without completing the official drop process by **July 22, 2016** deadline. Please consult the Academic Calendar ([http://www.tamucc.edu/academics/calendar/](http://www.tamucc.edu/academics/calendar/)) for the last day to drop a course.

• **Grade Appeals (College of Science and Engineering)**
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage at [http://sci.tamucc.edu/students/GradeAppeal.html](http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• **Disability Services**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

[http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

• **Statement of Academic Continuity**
In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

J. OTHER INFORMATION

• Academic Advising
The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

GENERAL DISCLAIMER
I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.