



Syllabus General Biology

Course Description:	Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to diversity among the various kingdoms.
Prerequisite	High School Biology
Goals:	<ol style="list-style-type: none">1. Apply key biological concepts and principles to living things.2. Interconnect evolutionary development of life.3. Value the unity and diversity of living things.4. Integrate scientific thinking to personal and professional life.
Core Abilities:	<ul style="list-style-type: none">⇒ Demonstrate adaptation to change.⇒ Use critical and creative thinking to solve problems, resolve conflict, make decisions, and complete tasks.⇒ Work cooperatively in a team environment.⇒ Communicate in ways that honor diversity.⇒ Demonstrate personal integrity through ethical and responsible behaviors.
Competencies:	<ol style="list-style-type: none">1. Investigate the characteristics of living things2. Apply the scientific method to biological sciences3. Apply basic biochemistry concepts as they relate to macromolecules.4. Explore the basic taxonomic relationships of living things.5. Examine the components of cell structure, function, and transport mechanisms.6. Compare the prokaryotes and eukaryotes.7. Examine the concepts of evolution8. Analyze the concepts of cellular metabolism9. Examine the cell cycle including mitosis and meiosis.10. Investigate genetics and protein synthesis.11. Explain the function, development, and evolution of selected organism

Biology 1 Syllabus –Instructor Information

Instructor Name: Office Room #: Campus: Office Phone #: E-Mail Address: Fax Number: Office Hours:	 See posted days and times on web site
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Class Information

Title and State Course #: Number of Weeks: Credit(s):	General Biology 18 4 credits 18 weeks 3 lecture sessions and one 2-hour lab session/ week
Textbook:	Neil Campbell and Jane Reece . <i>Biology</i> . Edition: 6th . Publisher: Pearson Benjamin Cummings . Peter Raven and George Johnson . <i>Biology</i> . Edition: 6th . Publisher: McGraw-Hill.

Grading Policy

Grading Criteria:	Grades are based on the average of all scores received in the class. Quizzes, papers, lab work, and all other graded activities are included in the average.										
Grading Scale:	<i>Tentative points available</i>										
A 92 - 100 B 85 - 91 C 78 - 84 D 70 - 77 F below 70	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">Group lab write-ups</td> <td style="text-align: right; padding-left: 20px;">350</td> </tr> <tr> <td style="padding-left: 20px;">Individual lab write-ups</td> <td style="text-align: right; padding-left: 20px;">150</td> </tr> <tr> <td style="padding-left: 20px;">Exams/ quizzes</td> <td style="text-align: right; padding-left: 20px;">350</td> </tr> <tr> <td style="padding-left: 20px;">Field Manual Portfolio</td> <td style="text-align: right; padding-left: 20px;">100</td> </tr> <tr> <td style="padding-left: 20px;">TOTAL</td> <td style="text-align: right; padding-left: 20px;">950</td> </tr> </table>	Group lab write-ups	350	Individual lab write-ups	150	Exams/ quizzes	350	Field Manual Portfolio	100	TOTAL	950
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TOTAL	950										
Attendance and Grading Policies:	A student may be dropped from the course if absences exceed 10 class hours. You will lose 4 points / day for late assignments, tests, and reports.										
Quizzes	There will be several exams and quizzes during the semester. Dates will be announced in class.										
Projects:	Students will participate in several group projects worth approximately 350 points. Projects, including due dates, will be announced in class. Lab and other group projects require preparation. Your textbook and handouts contain the information required to be a successful participant. It is your responsibility to come to class prepared and participate fully in group activities. Group members may have points deducted due to lack of full participation.										

ADA Statement

FVTC fully complies with the Americans with Disabilities Act of 1990 (ADA), Section 504 of the Rehabilitation Act of 1973, and its amendments, all of which prohibit discrimination on the basis of disability in the admission, access to, or participation in programs or activities. FVTC provides a wide range of supplemental services to ensure reasonable accommodations to the known physical or mental limitations of qualified individuals with disabilities.

To obtain more information or request accommodations, contact FVTC's Student Services' Special NeedsCenter. The ADA/504 Coordinator for students is Shary Schwabenlender. Her number is 920-735

Competency	Laboratory Work	Lecture
1. Investigate the characteristics of living things 2. Apply the scientific method to biological sciences	Bird observation techniques, habitat analysis Scientific Method laboratory report on habitat analysis	Scientific Method Characteristics of living things
3. Apply basic biochemistry concepts as they relate to macromolecules	Nutrient analysis of various foods and nutritional needs of plants and animals	Biomolecules and their role in living organisms
4. Explore the basic taxonomic relationships of living things	Bird observation techniques – scientific and common names Tree of life – domains, kingdoms and the Linnaean taxonomic system	Domains, Kingdoms, and the tree of life Scientific nomenclature
5. Examine the components of cell structure, function, tissue, and transport mechanisms.	Osmosis Salinity experiments – greenhouse Scientific method write-up and discussion	Cells - structure and function Tissue types and their function Osmosis, diffusion, and active transport
6. Compare prokaryotes and eukaryotes	Gram stain technique Protozoa: wastewater analysis using varied conditions Scientific method write-up and discussion	Prokaryotes Eukaryotes Role in nutrient cycling
7. Examine the concepts of evolution	Comparisons of evolutionary theories and their relationship to molecular genetics Evolutionary theory and bird biology	Evolution Molecular genetics and evolution
8. Analyze the concepts of cellular metabolism	Nitrogen Cycle Sulfur Cycle Develop poster sessions on various nutrient cycles	Nutrient cycling and metabolism Wastewater treatment and metabolism Photosynthesis
9. Examine the cell cycle including mitosis and meiosis	Fungi life cycles, plant life cycles Scientific write-up and discussion	Cell cycle
10. Investigate genetics and protein synthesis	DNA replication models Protein synthesis models DNA extraction	DNA, RNA, and Protein synthesis
11. Explain the function, development, and evolution of selected organisms	Dissection: amphibian, mammal Annelids: Vermicomposting Complete laboratory reports	Body plans and evolution Organ system structure and function in various phyla