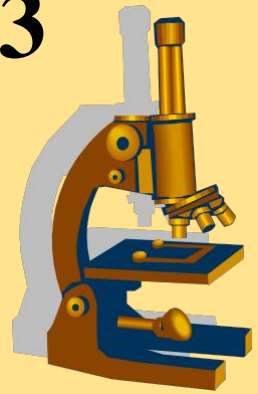


BIOL 1010

Department Wide Final

Exam Assessment

Spring Semester 2013



628 Students

24 Lecture Sections

1 Full-time Faculty Member

10 Adjunct Faculty Members

30 Lab Sections

7 Part-time Laboratory Instructors



Step Ahead.



Assessment Results listed by Course Objective

BIOL 1010 Departmental Final Exam Spring 2013			
Question#	Course Objective	Proficiency	St Deviation
1	2. The characteristics that describe living organisms (life).	81%	0.14
2	3. The hierarchy of biological organization.	72%	0.16
3	4. The diversity and general classification of living organisms	80%	0.13
4	6. The value and use science as a process of obtaining knowledge based upon observable evidence.	72%	0.26
5	1. That all matter is composed of chemical elements.	83%	0.16
6	3. The structure and chemical properties of atoms.	71%	0.18
7	4. That atoms react with one another to form molecules through chemical bonds and attractions.	75%	0.15
8	5. The structure and unique properties of water.	85%	0.13
9	1. The chemical properties of carbon atoms.	79%	0.12
10	3. The synthesis and breakdown of biological polymers.	79%	0.13
11	4. The basic structure and function of the four types of biological macromolecules.	57%	0.19
12	1. That cells are the basic units of life.	63%	0.14
13	2. The different sizes and types of cells and how cells are studied.	83%	0.20
14	3. The basic structures found in prokaryotic and eukaryotic cells.	58%	0.09
15	5. That cells carry-out energy transformations.	63%	0.18
16	1. Energy and the laws that govern energy transformations.	67%	0.16
17	2. The basics of cellular metabolism (endergonic/exergonic).	58%	0.19
18	3. The structure and cycle of adenosine triphosphate (ATP).	74%	0.16
19	5. The structure and function of the plasma membrane.	66%	0.15
20	1. That autotrophs are the producers of the biosphere.	52%	0.16
21	3. That photosynthesis involves two sets of reactions: The light reactions and the Calvin cycle reactions.	79%	0.27
22	4. The Light reaction absorbs solar energy and converts it into chemical energy.	74%	0.12
23	5. The Calvin cycle (dark reaction) produces a carbohydrate using CO ₂	57%	0.13
24	7. That photosynthesis helps moderate global climate change.	38%	0.21
25	2. That cellular respiration (aerobic) is a redox reaction that requires oxygen.	45%	0.25
26	3. That cellular respiration has four phases. Three phases occur in the mitochondria.	50%	0.19
27	4. The electron transport chain captures much energy.	55%	0.16
28	6. The types of anaerobic respiration (Fermentation).	59%	0.17
29	1. That cell division ensures the transmission of genetic information.	75%	0.15
30	2. That cell division is involved in both asexual and sexual reproduction.	70%	0.22
31	3. That prokaryotes reproduce asexually.	75%	0.14
32	5. That cancer is uncontrolled cell division.	73%	0.17
33	7. That meiosis halves the number of chromosomes because homologous chromosomes separate during Meiosis. Synapsis and crossing-over also occur during meiosis.	75%	0.20
34	9. The types and causes of chromosomal mutations.	71%	0.15
35	2. The units of inheritance are alleles of genes.	69%	0.16
36	3. That Mendel's law of segregation describes how gametes pass on traits.	76%	0.17
37	4. That Mendel's law of independent assortment describes inheritance of multiple traits.	68%	0.25
38	6. The more complex patterns of non-Mendelian genetics (incomplete, complete, polygenic, pleiotropy etc.).	50%	0.21
39	8. That chromosomes are the carriers of genes.	67%	0.19
40	2. The Structure of the DNA double helix.	82%	0.15
41	4. That genes specify the makeup of proteins.	89%	0.16
42	6. The genetic code for amino acids is a triplet code that is virtually universal.	88%	0.16
43	1. The development of evolutionary theory.	70%	0.24
44	3. The evidences for the principle/theory of evolution.	42%	0.15
45	5. The various ways genetic variation arises in populations.	67%	0.14
46	1. That species have been defined in more than one way.	65%	0.18
47	3. The basic concept of macroevolution and speciation and that the origin of new species usually requires Geographic separation (e.g. allopatric speciation).	45%	0.22
48	5. The fossil record shows both gradual and rapid speciation.	59%	0.16
49	2. That continental drift and mass extinctions have affected the history of life.	74%	0.28
50	4. The three-domain classification system.	72%	0.17

