

**Course syllabus Organismal Biology - Non- -Summer I | 2011**

**8:00-9:25 am M, T,W, Th Room 1025, Bailey Science Center Bldg.**

**Text: *Biology: Concepts & Investigations*, by Mariëlle Hoefnagels**

**Instructor: Dr. John F. Elder**

Office: 2088 Biol/Chem Bldg.

Office Hours 9:30-10:00 am M,T,W & Th or by appointment, though I also have an open door policy. Feel free to drop

## Course syllabus - Non-

### Important Dates Schedule

Please note that test dates are tentative and may change depending on the rate at which material is covered. Tests may be postponed but will never be moved ahead.

June

Wednesday 8, 2011 - First Class day

Thursday 23, 2011 - Test 1

July

Friday 1, 2011 - Midterm – last drop

Monday 4, 2011 - Holiday date

Thursday 14, 2011 – Test 2

Tuesday 26, 2011– Test 3 – last class

Thursday 28, 2011- Final Exam - 8:00-10:00 am

### Tentative list of topics and readings

#### Section I: What is Life?

Common themes of molecular/cellular biology

Biochemistry Chapter 2

What is a cell? Chapter 3

Energy metabolism I Chapter 4

Energy metabolism II Chapter 6

Photosynthesis, Chapter 5

#### Section I Exam

#### Section II: Molecular and classical genetics

DNA Chapter 7

The cell cycle and mitosis Chapters 8

Sex and meiosis! Chapter 9

Classical genetics Chapter 10

Human genetics Chapter 11

DNA transcription and regulation Chapter 12

#### Section II Exam

#### Section III: The primary producers

Higher. Plants Chapter 24

How plants get the stuff they need Chapter 25

Flowering plant reproduction and development Chapter 26

Animal physiology and embryology

Tissue and organ systems Chapter 27

The nervous system and the senses Chapter 28 & 29

Regulation — the endocrine and renal systems Chapter 30 & 35

Motion — the skeleton and muscles Chapter 31

Circulation and respiration Chapters 32 & 33

Feeding Chapter 34