Articulation & General Studies Committee
AGSC & STARS
Statewide Transfer & Articulation Reporting System

COURSE PROPOSAL FORM

For complete AGSC Course Requirements & Guidelines, please refer our website: http://stars.troy.edu

SECTION 1 - TO BE COMPLETED BY THE INSTITUTION SUBMITTING COURSE FOR APPROVAL

Name of Institution Jacksonville State University

Course Prefix & Number CY 116 **Course Title** Concepts of General Chemistry II

Semester Credit Hours 4 **Does course have a laboratory?** ☑ YES ☐ NO

Is what general academic area is this course currently being offered at your institution? (Select one the following)

☐ Written Composition ☐ Humanities & Fine Arts ☑ Math & Science ☐ Social Science ☐ Other Area _____

Check all that apply:

- ☑ Initial submission
- ☐ Re-submission
- ☐ Course title/number change
- ☐ Course content change for previously approved course

Course Description (including prerequisites) **as it appears in undergraduate catalog:**

Prerequisite: CY 115. Lecture 3 hours; Lab 3 hours. Part II of a two-semester sequence. General chemistry for students who are not planning on taking any higher-level courses in chemistry. This course is the second semester in the basic principles and laws of chemistry. Topics include organic molecules, functional groups, molecular configurations, aldehydes and ketones, carboxylic acids and derivatives, neurotransmitters, and metabolism.

MUST ATTACH A HARD COPY OF A "REPRESENTATIVE" COURSE SYLLABUS TO THIS FORM

Contact information for person submitting proposal (name, position, mailing address, telephone number, and email address)

Dr. Lou Reinisch, Head; Dept. of Phys. and Earth Sciences; Jacksonville State Univ.; 700 Pelham Rd. N.; Jacksonville, AL 36265; (256) 782-5813; lou.reinisch@att.net

Required Institution Signatures:

Department Head/Chair Lou Reinisch Date 17 Aug 11

College Dean [signature] Date 8-18-11

Academic VP or Provost [signature] Date 8.25-11

SECTION 2 - TO BE COMPLETED BY AGSC ACADEMIC COMMITTEE CHAIR

NAME OF ACADEMIC COMMITTEE:

ACADEMIC COMMITTEE RECOMMENDATION: ☐ **Recommended** for AGSC Approval ☐ **Not Recommended** for AGSC Approval

VOTING RESULTS: _____ # of **YES** votes _____ # of **NO** votes _____ # not voting/abstaining

SELECTED AREA OF APPROVAL:

- ☐ AREA I - Written Composition
- ☐ AREA II - Humanities & Fine Arts
- ☐ AREA III - Math & Science
- ☐ AREA IV - Social Science

If NOT RECOMMENDED, please give explanation:

Committee Chair Signature _____ Date _____

SECTION 3 - TO BE COMPLETED BY AGSC CHAIR

AGSC APPROVAL:

- ☐ APPROVED
- ☐ NOT APPROVED
- ☐ TABLED

AGSC APPROVAL STAMP

IF TABLED, REASON WHY? _____

AFTER SECTION 1 (ABOVE) IS COMPLETE, MAIL FORM & COURSE SYLLABUS TO:

AGSC/STARS PROGRAM
1101 SOUTH BRUNDIDGE STREET
ELC BUILDING - SUITE 107
TROY UNIVERSITY
TROY, AL 36081

THE STARS OFFICE STAFF WILL SEND OUT PROPOSAL TO THE APPROPRIATE COMMITTEE AND, IF RECOMMENDED FOR APPROVAL, WILL THEN BRING THE COURSE BEFORE THE

CY 116 SYLLABUS Spring Term

INSTRUCTOR: Dr. Al Nichols, office 232D Martin Hall, research lab 203 McGee; office hours T 9:00-11:00 or by appointment; phone 256-782-8150; email anichols@jsu.edu

TEXT: *General, Organic, & Biological Chemistry*, first edition, by Janice Gorzynski Smith

LAB: *Laboratory Manual for General, Organic, and Biological Chemistry*, 2 ed, by Timberlake

HELP: See Supplemental Learning Services for free tutoring

EXAMS: Three class exams will be given. A comprehensive final will be given as scheduled by the University.

GRADING: Each exam will count 100 points for a total of 400 points. Your lab grade will count for 100 points of your final grade. Homework problems will count for 100 points of your final grade. Your grade will be the total number of points that you have obtained divided by 600 possible points. 100-90% = A; 89-80% = B; 79-70% = C; 69-60% = D; 59-0% = F. Grades are not curved, scaled, fricasseed or sautéed. What you make is what you get. If you do not know the material, you obviously should not expect to pass the course.

MISSED EXAMS: There will be no make-up exams. If an exam is missed as a result of an official University sanctioned absence **and** acceptable written documentation is provided to the instructor, the value of the final will be increased by the value of the missed exam. An unexcused absence from an exam will result in a grade of zero.

DISABILITIES: Students needing special accommodations due to disabilities should meet with the instructor during the first week of class.

ATTENDANCE: Attendance is not only appreciated, it is expected. Roll will be taken. Students having six or more unexcused class absences will receive a failing grade in the course. Just like a job, your compensation will be a direct reflection of the amount of work you do. Expect to spend one to two hours a night on this course. If you have a weak background in chemistry or math, more time may be required. Read the material before class. Take notes in class. After class, review your notes and work problems from homework and the end of the chapter. If there is a problem that you do not understand, ask in class. If you do not ask questions, the instructor expects that you understand the material. Any student who receives failing grades or has any questions about grades during the course is encouraged to discuss this with the instructor in a timely manner. The instructor reserves the right to make changes as deemed necessary to promote the best educational environment for this course.

CHEATING: Cheating will not be tolerated! This also applies to lab work. Anyone suspected of this activity will be subject to sanctions as stated in the student handbook. Disruptive students will be removed from the class.

CELL PHONES: Cell phones will be turned off in class and lab unless previously approved by the instructor due to an emergency situation. During exams, cell phones will be turned off **and stowed out of sight!**

CALCULATORS: If you want to use a calculator during an exam you must bring a calculator. They are **not** furnished by the department or the instructor.

The course will cover chapters 11, 12, 13, 17, 18, 19, 20, 21, 22, 23 and 24 in the text. It is your responsibility to keep up with the material. Students lacking a strong background in chemistry generally do not do well by studying only the night before the exam.

You are expected to know the following:

A. The names and chemical symbols for all of the elements in the first four rows of the periodic table as well as Ag, Cd, Sn, I, Xe, Ba, Pt, Hg, Pb, U;
B. The names, symbols and charges for the polyatomic ions listed in Table 3.5, page 85;
C. The shapes of carbon molecules having two, three and four bonding electron densities around the central atom;
D. Lewis structures for carbon, nitrogen, oxygen, sulfur, phosphorous and the halogens;
E. Weak molecular interactions;
F. Electronegativity and dipole moment.

CY116 Laboratory Exercises
Using: *Laboratory Manual for General, Organic, and Biological Chemistry*, 2 ed, by Timberlake

Lab #1 – (Text Ex. 23) - Synthesis of Aspirin

Objective: Use an esterification reaction to synthesize aspiring

Lab #2 (Text Ex. 17 modified) – Titration of Aspirin

Objective: Prepare and sample for titration with a base and the calculation of the molar concentration of aspirin

Lab #3 (Text Ex. 28) - Synthesis of Acetaminophen

Objective: Prepare the common analgesic acetaminophen and determine the purity by melting point.

Lab #4 (Text Ex. 23) – Thin-Layer Chromatography of Analgesics'

Objective: Use thin-layer chromatography to separate and identify components in analgesics.

Lab #5 (Text Ex. 26) – Synthesis of Soap

Objective: Prepare soap by the saponification of a fat

Lab #6 (Text Ex. 31) – Isolation of Casein from Milk

Objective: Use the isoelectric point of casein in milk to isolate the protein, and to use chemical tests to identify proteins and amino acids.

Lab #7 (Extra) – Extraction of Caffeine from Beverages

Objective: To separate and analyze the purity of the isolated caffeine in different beverages.

Lab #8 (Text Ex. 33) – Vitamin C Content in Tablets and Beverages

Objective: Compare the vitamin C content in a variety of citrus juices and in tablets.

Lab #9 (Text Ex. 21) – Hydrolysis of Sucrose

Objective: To relate the process of digestion to the hydrolysis of carbohydrates.

Lab #10 (Text Ex. 12) – Solubility of Polar and Nonpolar Compounds

Objective: To observe the solubility of a solute in polar and nonpolar solvents, and to determine the effect of temperature on solubility.