





2. Synthetic Efficiency. Green Chemistry Metrics. Individual Reactions Analysis. Atom Economy, E-

- c) Waste-free HF acylation chemistry: Hoechst Celanese process for the production of ibuprofen and acetaminophen. (President's Green Chemistry Challenge award)
- d) Resolution-racemization technology; Hoechst Celanese process for S-ibuprofen and p-Hydroxyphenyl Glycine.
- e) Novel Green Synthesis for  $\alpha$ -Amino Acids Produces the Active Ingredient in Januvia™ Merck & Company (President's Green Chemistry Challenge award)
- f) Organic reactions in water. Quasi-Nature Catalysis: Developing Transition Metal Catalysis in Air and Water. (President's Green Chemistry Challenge award)

----- 3 weeks

The Concept of Atom Economy.

Alternate energy sources; application of microwave and ultrasound in semicontinuous chemical processes.

Conclusion. Outlook for the future.

----- 2 weeks

**Student learner outcomes:**

At the successful completion of this course, you will demonstrate understanding of the key elements of the sources and causes of environmental pollution and abatement of pollutants via emphasizes the designing of environmentally friendly chemical processes (*green chemistry*) by completion of an assessment exam.

**Method(s) of evaluation and grading procedures:**

Evaluation of the course objectives will be assessed by the evaluation of two major examinations (hour exams) and a comprehensive final examination.

Examination 1	100pts
Examination 2	100pts
Examination 3, Comprehensive (Final)	200pts
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Total	400 pts

Due to time constraints no make-up examinations will be given. A student who can document an excused absence receives a grade based on his/her exam average. A grade of zero will be recorded for unexcused absences. From time to time there will be unannounced quizzes.



as it applies to an academic submission.

6) **Bribery:** Providing, offering or taking rewards in exchange for a grade, an assignment, or the aid of academic dishonesty.

7) **Threat:** An attempt to intimidate a student, staff or faculty member for the purpose of receiving an unearned grade or in an effort to prevent reporting of an Honor Code violation. Please be aware that the University subscribes to the Turnitin plagiarism detection service. Your paper may be submitted to this service at the discretion of the instructor.

**Other Forms of Academic Misconduct:**

1) Failure to follow published departmental guidelines, professor's syllabi, and other posted academic policies in place for the orderly and efficient instruction of classes, including laboratories, and use of academic resources or equipment.

2) Unauthorized possession of examinations, reserved library materials, laboratory materials or other course related materials.

3) Failure to follow the instructor or proctor's test-

performing a repetitive act that is annoying, sleeping or reading a newspaper in class, etc.) will be addressed by the faculty member initially either generally or individually. Cases in which such annoying behavior becomes excessive and the student refuses to respond to the faculty member's efforts can be referred to the Dean of Students. In the case of serious disruptive behavior in a classroom the instructor may first request compliance from the student and if it is not received, an instructor has the authority to ask the student to leave the classroom. If the student fails to leave after being directed to do so, assistance may be obtained from other university personnel, including University Police Department. An individual engaging in such disruptive behavior is subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under non-academic procedures to determine if the student should be allowed to return to the classroom.

**Harassment /Discrimination** (See page 23, section 200 of Student Handbook):

Texas A&M University-Kingsville will investigate all complaints that indicate sexual harassment, harassment, or discrimination may have occurred by the facts given by the complainant. Sexual harassment of anyone at Texas A&M University-Kingsville is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action. A person who believes he/she has been the victim of sexual harassment, harassment, or discrimination may pursue either the informal or the formal complaint resolution procedure. A complaint may be initially made to the complainant's immediate supervisor, a department head, any supervisory employee, the Dean of Students (593-3606), or the Office of Compliance (593-4758). Regardless of who the complaint is filed with, the Compliance Office will be notified of the complaint so it can be investigated.

**Six-drop policy:**

The following provision (new in Fall 2007) does not apply to students with Texas public college or university credits prior to Fall 2007. The Texas legislature has enacted a limit to the number of course drops allowed to a student without penalty. After a student has dropped six courses, a grade of QF will normally be recorded for each subsequent drop. If you need additional information on Senate Bill 1231 and how it affects you, please contact the Registrar's Office in College Hall, Room 105.

**Comments:**

I will not take formal attendance but class attendance is a very practical necessity. Please note that attendance policies may vary by college). No late assignments will be accepted. Graduating seniors who need to schedule an early final should inform the instructor early in the semester. Students should turn off their cell phones during class.

The syllabus is intended to be informational and not contractual. The instructor reserves the right to amend, alter, change, delete, or modify the syllabus with notice (announced during the lecture season) in any manner that is deemed necessary and in the best interest of the Department of chemistry and Texas A & M University-Kingsville.

It is the responsibility of the student to keep the original graded copies of all materials (exams, problem set, in-class assignments, etc.) that have been returned for his/her records. Graded final exams are retained by the instructor for his/her permanent records.