

SYLLABUS
for
CHE 5470, Historical Foundations of Chemistry

Term: Spring, 1999
Instructor: Dr. C. Dean Parks
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Office Hours: MWF 10:00 - noon; TTh 11:00 - 12:00
Text: Lecture: *From Caveman to Chemist*, Salzberg, H.W., American Chemical Society, 1991

COURSE DESCRIPTION: This course presents a selected history of chemistry with a study of the pioneers who developed the theories and techniques that have brought the science to its present position. This course will allow the student to gain a better appreciation of the rich heritage that early scientists and chemists have produced. Many of today's confusing topics may be better understood if a study of their history is presented.

ATTENDANCE: Attendance at all class meetings is expected. If a regular class meeting is missed, it is the student's responsibility to obtain any assignments or instructions that were given by the instructor. Missing a class is **NOT** an excuse for not preparing for the next class meeting or not having any assignments ready on time. Regularly scheduled tests are given and a grade of zero (0) will be given for missing a test except in the case of an **EXTREME** emergency. In this very rare situation the missed test must be made up before the graded tests are returned to the class. This will usually be the next class period. **NO MAKE-UP TESTS WILL BE GIVEN AFTER THE TESTS HAVE BEEN RETURNED.** If the student cannot return to class until after the tests have been returned, that test will not be included in the calculations of the final grade.

GRADING SYSTEM: Usually three will be given during the semester. Testing will be from class lectures, outside assignments, and material in the textbook unless it has been specifically omitted. Each test has a value of 100 points. In addition to the examinations there will be grades given on student reports and presentations. The course grade will be determined by dividing the total points obtained by the total points available throughout the semester. The grading scale used in this class is:

90-100% A
80-89% B
65-79% C
50-64% D
Below 50%

Please come by and see me during the semester if you have any difficulty or need to discuss some problem or concept.

TYPICAL COURSE OUTLINE:

<u>Class Meeting</u>	<u>Topic</u>
January 9	Introduction - Early processes and theories Read pages 1-32
January 16	Alchemy Read pages 33-70
January 23	Alchemists and natural philosophers Read pages 71-122
January 30	Pneumatic chemistry and the phlogiston problem Read pages 173-203
February 6	The scientific world in change Read pages 123-172
February 13	Test #1
February 20	Lavoisier and the beginnings of modern chemistry Read pages 185-206
February 27	Count Rumford and the study of heat
March 6	The periodic table
March 13	SPRING BREAK
March 20	Chemical mathematics Read pages 207-224
March 27	Test #2
April 3	Chemistry and the atom
April 10	Chemistry and electricity Read pages 251-260
April 17	Organic chemistry Read pages 225-250
April 24	Inorganic chemistry; chemistry and society Read pages 261-263
May 1	Test #3