

UNDERGRADUATE CURRICULUM COMMITTEE's PROPOSAL OF CHEMISTRY COURSES
CHEMISTRY 006

This course was referred back to the Department at the Faculty meeting of February 9th.

Section D, which reads, "Credit for 006 will not be allowed for persons who have already completed and passed more than one laboratory course in Chemistry or who are declared majors in Chemistry, Biology, Physics or related interdisciplinary fields." has been revised and the revision has been approved by the Undergraduate Curriculum Committee at its meeting on March 31st.

B. L. Funt

Approved by the Faculty of Science at its meeting of April 20, 1970

FACULTY OF SCIENCE

NEW COURSE PROPOSAL

I. CALENDAR INFORMATION

Department: Chemistry

Course Number: 006

Title: Chemistry in the World: an experimental approach

Credit Hours: 2

Vector Description: 004

Pre-requisite(s): none

II. ENROLMENT AND SCHEDULING

Estimated Enrolment: 25

Semester Offered (eg. Yearly, every Spring; twice yearly, Fall and Spring):
every Fall

When course will first be offered: Fall, 1970

III. JUSTIFICATION:

A. What is the detailed description of the course including differentiation from lower level courses, from similar courses in the same department and from courses in other departments in the University?

This course is explicitly designed as a laboratory course for non-scientists. As such there is no other such course offered at this University. Courses such as Bio.101 and Chem.106 could be considered similar but their approach and aim are different. It is intended in this course to involve a non-scientist directly with experimental methods and also to illustrate to him the relationship between the studies a chemist does in the laboratory and the world outside.

B. What is the range of topics that may be dealt with in the course?

This laboratory course is separated into three stages which are:

- a short stage introducing the student to the laboratory and some basic techniques.
- a second, longer stage in which several interesting and relevant experiments are performed.
- a final stage in which each student selects and performs an individual project which can be completed safely and in the time allotted.

The time allotted for each stage is roughly 1:2:1, respectively over a 13 week period and a tentative list of weekly experiments is appended.

C. How does this course fit the goals of the department?

This course fits the goals of the department by allowing students of any discipline to experience the way a chemist works in the laboratory and thus to give him an appreciation of the world of chemistry.

D. How does this course affect degree requirements?

Credit for 006 will not be allowed for persons who have already completed and passed more than one laboratory course in Chemistry or who are declared majors in Chemistry, Biology, Physics or related interdisciplinary fields.

E. What are the calendar changes necessary to reflect the addition of this course?

An additional entry is necessary to reflect the addition of this course to the list of chemistry course offerings.

F. What course, if any, is being dropped from the calendar if this course is approved?

G. What is the nature of student demands for this course?

This course was tried with small, pilot groups in Chem.106 with interested non-chemists (and non-scientists) for 2 semesters. The response was quite positive and all suggested expanding it into a separate course. It is expected that the majority of students enrolling in this course will be non-scientists.

H. Other reasons for introducing the course.

There seems to be a real need at this time to allow interested non-science students the opportunity to become involved directly in a laboratory course without the rigor demanded of science students.

IV.

BUDGETARY AND SPACE FACTORS

A. Which faculty will be available to teach this course?

Dr. J. D'Auria, Dr. J. Walkley & Dr. B.D. Pate. Changes in the pre-requisites for Chem. 361, 362 and 462 would allow a lower frequency of offering of these courses and therefore free faculty.

B. What are the special space and/or equipment requirements for this course?

Generally no special equipment is required and the present Chem.106 laboratory could accommodate presently predicted enrollments.

C. Any other budgetary implications of mounting this course:

No significant budget increase is anticipated initially as the materials and supplies necessary for this course are available in other laboratory courses.

APPROVAL - Faculty Undergraduate Curriculum Committee: **MARCH 31, 1970**

Faculty: **APRIL 20, 1970**

Senate:

A tentative list of experiments for the proposed course Chem. 006 on a weekly basis include:

- Black Box
 - Mass and Volume
 - Language of Chemistry
- Basic Components of Matter
- Physical and Chemical Properties
- Making Beautiful Crystals and Watching Them Grow
- Making Plastics and Drugs
- Exploring Chemical Reactions of Aspirin
 - Studying the Action of Pre-Soak Soaps
- A Study of Water
- Paper Chromatography - A Method of Separation and Identification
- Gas-Liquid Chromatography and some practical applications
- Radioactivity and the Nucleus

PROJECT

A laboratory report will be required for all experiments.