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Requester

Approval Form

Proposal Title: Addition of Lab Component to Forensic
 Sponsor(s) Mark Chamberlain Dept: Physical Science Ext: 6036 Chemist,
Robert Verlaad " " 1745

Check one: Course Specialization Concentration Minor Achievement Certificate
 Certification Program Major Program Minor Change _____
(please name, deletion or credit/title/catalog change.)

Undergraduate Graduate 4 Credit Hours

<p>Step 1 (Department)</p> <p><input checked="" type="checkbox"/> Approved <u>2/4/93</u> <small>Date</small></p> <p><input type="checkbox"/> Not Approved</p> <p>_____ <small>Dept. CC Chairperson</small></p> <p><input type="checkbox"/> Reviewed _____ <small>Date</small></p> <p><u>[Signature]</u> <small>Dept. Chairperson</small></p>	<p>Step 2 (Receipt)</p> <p><input checked="" type="checkbox"/> SCC# <u>92-93-50</u></p> <p>Proposal Received _____ <small>Date</small></p> <p><u>[Signature]</u> <small>SCC Chairperson</small></p>	<p>Step 3 (School CC)</p> <p>Reviewed <u>2-22-93</u></p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p>Comments: Consultations needed with Psych Law/Justice, Sociology, Resources needed are unclear General education is a separate issue - course # appropriate for gen ed?</p> <p><u>[Signature]</u> <small>School Curr Comm Chairperson</small></p>
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Step 4 (Academic Dean) **Comments:**

Recommend
 Not Recommend
 Conditionally Recommend (see comments)

Reviewed 2/25/93
Date

[Signature]
Signature, Dean of School

Step 5 (SCC)

Open Hearing 4/19/93 Approved by Senate Curriculum Committee 5/7/93
Date Date

Returned to sponsor(s) for the following reasons:
Returned back to SCC w/ changes

Step 6 (Senate)

Presented to Senate 5/17/93 Approved Not Approved
Date

Notification to Executive Vice-President/Provost 5/17/93 [Signature]
Date Signature, SCC Chairperson

Step 7 (Executive V.P./Provost)

Received _____

Approved Yes No

If no, reasons are as follows _____

Student credit hours _____

Faculty load hours _____

Equalized credit hours _____

Official copy and approval sheet filed JUL 15 1993
Date

Signature, Executive Vice President/Provost

Registrar

Approved course description received 18 Aug. 93
Date

Hegis Taxonomy and Course Number assigned 1905.350 add lab 4cr.

B. J. Kelsey 18 Aug. 93
Signature, Registrar Date

Notification forwarded:

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

PROPOSAL

- (1) ADDITION OF A LABORATORY COMPONENT TO THE COURSE "FORENSIC CHEMISTRY", 1905.350
- (2) REQUEST TO HAVE "FORENSIC CHEMISTRY" LISTED AS A GENERAL EDUCATION COURSE

General Information

Title: Introduction to Forensic Chemistry

Sponsor: Mark Chamberlain, Robert Newland. Department of Physical Sciences

Level: Undergraduate (4 credit hours)

Curriculum Effect: General Education

Implementation Schedule: N/A

Resources: Laboratory equipment is currently available; library holdings are adequate and will be augmented through normal Departmental processes and budget allocations. Replacement and additional hiring as outlined in the College's Strategic Plan should make faculty resources available.

Present course description: **Forensic Chemistry.** This course considers the application of physical and chemical methods to the identification and analysis of the physical evidence associated with a crime. The course emphasizes those areas of chemistry, and to a lesser extent physics, biology and geology useful for determining the evidential value of crime scene and related evidence.

Rationale and Discussion

This course was formally approved as a free elective in 1986 after a one-semester trial with Short-Term Course approval and has been offered irregularly since that time. Target populations were (1) students in the Law and Justice program, (2) science students interested in applied area of the physical sciences, and (3) general students satisfying an intellectual curiosity. Students in all categories have enrolled in the course.

As originally offered, no formal laboratory session was scheduled. In fact, hands-on laboratory work was included during regular lecture time. The value of laboratory work, particularly for the student with little prior laboratory experience was clearly demonstrated.

The new College General Education Model requires student completion of a

laboratory science. The addition of a formal laboratory requirement and concomitant increase in credit hours from three to four will allow the course “Forensic Chemistry” to be taken in partial fulfillment of this new General Education requirement.

General Education Rationale

“Forensic Chemistry” with laboratory will meet the fundamental criteria for a general education course in science.

- * The course is designed and taught assuming no more than the high school science and mathematics background required for College admission.

- * The course emphasizes scientific methodology and the development of critical thinking skills

- * The course relates science and the scientific method to an area of societal interest and concern.

- * The course meets the interests of students in a number of different major programs as well as the student simply satisfying his/her intellectual curiosity.

Addition of a formal experience to this course is consistent with the College General Education Model and the College’s rationale for including laboratory experience in its model. The acquisition, processing and interpretation of data is a necessary part of the development of critical thinking skills in science. More important, the laboratory experience demonstrates the limitations as well as the utility of data. The “science” of forensic science is applied within a legal and political system. The relationship between scientifically sound data and conclusions in the laboratory and the application of this data in the legal system is explored thoroughly in the course. Direct hands-on experience with the laboratory is requisite for understanding this relationship.

Evaluation & Consultation

Evaluation procedures were described in the original approved proposal. Students will be evaluated on their laboratory work by means of short, written laboratory reports. Course evaluation will be done at the end of each semester, using already existing Departmental forms which include a specific section for laboratory work.

Consultation with members of the Department of Law and Justice was part of the development of the original course proposal.

Other Information

The laboratory work in Forensic Chemistry will be developed from a variety of sources:

- * A lab manual is commercially available for a course such as this
- * Articles have been published in recent issues of the Journal of Chemical Education that describe appropriate, well tested experiments for this course.
- * There are commercially available kits (chemicals and instructions) for forensic laboratory work
- * Other experiments, modifying standard general chemistry laboratory experiments will be written as needed.

COURSE DESCRIPTION

Forensic Chemistry. (Lecture and Lab) This course considers the application of physical and chemical methods to the identification and analysis of the physical evidence associated with a crime. The course emphasizes those areas of chemistry, and to a lesser extent physics, biology and geology useful for determining the evidential value of crime scene and related evidence. The laboratory experience emphasizes the application of physical and chemical analytical procedures to the examination of materials that would likely be considered evidence in a crime.

(Underlined material is new)