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Forensic Science Minor

The College at Brockport, College Senate

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SUNY BROCKPORT

College Senate
State University of New York College at Brockport
350 New Campus Drive
Brockport, NY 14420-2925
(585) 395-2586 (Fax) 395-2246

COLLEGE SENATE SUNY College at Brockport

MAY 7 2008

350 New Campus Drive Brockport, NY 14420-2925

Resolution # <u>27</u> 2007-2008 COLLEGE SENATE

New Resolution: ✓ Supersedes Res #:

TO: Dr. John R. Halstead, College President
FROM: The College Senate: April 21, 2008
RE: - I. Formal Resolution (Act of Determination)
II. Recommendation (Urging the Fitness of)
III. Other, For Your Information (Notice, Request, Report, etc.)
SUBJ: Forensic Science Minor rowling #26 07-08 UC
Signed: Date 25 APR 08 (P. Gibson Ralph, 2007-2008 College Senate President)
Please fill out the bottom portion and follow the distribution instructions at the end of this page.
TO: P. Gibson Ralph, The College Senate President
FROM: John R. Halstead, College President
RE: Decision and Action Taken on Formal Resolution (circle choice) (a. Accepted)
Implementation Effective Date: Fall 2008 b. Deferred for discussion with the Faculty Senate on/ c. Unacceptable for the reasons contained in the attached explanation
II, III. Response to Recommendation or Other/FYI
a. Received and acknowledged//
b. Comment:
Signed:
<u>DISTRIBUTION</u>
PRESIDENT'S OFFICE COPIES: Provost, Vice Presidents, College Senate, Other: 5/5/08
PROVOST & VICE PRESIDENT(S) COPIES: Assistant Provost, Dean(s), Academic Advisement, Registrar, Other:
DEAN(S) COPY: Department Chair(s), Other:
COLLEGE SENATE COPIES: Originator, College Senate Website, Other:

Page 1 of 12 2007-2008-27_res.doc 4/24/2008

DEADLINE FOR SUBMISSIONS: FEBRUARY 28

Incomplete proposals or proposals received after the deadline may not be reviewed until next semester.

INSTRUCTIONS – please, no multiple attachments – each proposal must be submitted as one document:

- Submit only complete proposals. Include support letters from department chair and dean.
- Proposals must be prepared individually in Word format using committee guidelines (guidelines online).
- Fill out this cover page for each proposal and insert it electronically as the front page of your document. (available online at www.brockport.edu/collegesenate)
- Email whole proposal with cover page as one attachment to senate@brockport.edu and facprez@brockport.edu.

 In the senate of t
- All updates must be resubmitted to the Senate office with the original cover page including routing number.
- Questions? Call the Senate office at 395-2586 or the appropriate committee chairperson.

1. **PROPOSAL TITLE:** Please be somewhat descriptive, ie. *Graduate Probation/Dismissal Proposal*. rather than *Graduate Proposal*.

Minor in Forensic Science

2. BRIEF DESCRIPTION OF PROPOSAL:

SUNY Brockport Department of Oriminal Justice proposes a minor in Forensic Science. This will entail an interdisciplinary scientific approach to the social, behavioral, and natural sciences and their application to legal contexts. The theoretical and methodological approaches of various scientific disciplines will be incorporated in this program. This will help the student to familiarize with a wide range of "players" involved in the scientific analysis, interpretation, recovery, treatment, and evaluation of physical and biological evidence, and subsequent testimony. With the glamorization of forensics and its utility in solving crimes, the reality of the meticulous, often grueling nature of forensic science are commonly misunderstood.

Having experienced interdisciplinarity in coursework and internships, forensic science minors will obtain a unique perspective, one that emphasizes critical thinking, analytical, and problem-solving skills. Evaluation of forensic data for the courtroom context is an ongoing, collaborative process among forensic scientists and others dealing with evidence. Thus, the minor degree program will prepare students to work in medical-legal laboratory and field contexts such as legal, law enforcement and other related possibilities, including medical-legal careers and investigations.

The interdisciplinary structure of the proposed Forensic Science minor supports SUNY Brockport's commitment to students to the latest investigative methods and technologies, and approaches used by a variety of scientists; in turn, the applied nature of forensic science encourages students to consider information in a context beyond the classroom – that of the community, and the greater society.

3	ANTICIPA	TFD	EFFECTIVE	DATE.

Fall Semester 2008	
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SUBMISSION & REVISION DATES: PLEASE PUT A DATE ON ALL UPDATED DOCUMENTS TO AVOID CONFUSION.

First Submission	Updated on	Updated on	Updated on
2/28/08			

5. SUBMITTED BY: (contact person)

Name	Department	Phone	Email
Ann W. Bunch	Criminal Justice	395-5501	abunch@brockport.edu

6. COMMITTEES TO COPY: (Senate office use only)

Standing Committee	Forwarded To	Date
Enrollment Planning & Policies	To Committee for approval	2/28/08
Faculty & Professional Staff Policies	Committee Chair Sign Here When Passed	
General Education & Curriculum Policies *	To Executive Committee	3/10/08
Graduate Curriculum & Policies	GED to Vice Provost	NA
Student Policies	To Senate	3/24 – vote 4/21/08
Undergraduate Curriculum & Policies	To College President	4/25/08
* follow special Gen Ed procedures for submission of General Education proposals at 'How to Submit Proposals' on our Website.	REJECTED -WITHDRAWN	

2. RATIONALE FOR FORENSIC SCIENCE MINOR

The Oriminal Justice Department of the College at Brockport proposes a new minor option in Forensic Science. This minor will allow students to explore the impact of various natural and social sciences in the medicolegal system in the United States today. With the continuing refinement of technologies that are applied to crime-solving and general evidence collection, the part that the sciences play in the public forum of the court system is noticeably expanding. Media presentations of crime labs and field criminalistics bombard viewers with technical terminology and concepts on the subject. There is a

measurable influence on local communities and their expectations of the medicolegal system, known to professionals who work in this field as the "CSI effect."

In order for students to have a realistic and practical understanding of the endeavor of forensic science, the Oriminal Justice Department proposes the Forensic Science Minor, outlined in the following pages. The core courses offered will outline and summarize the basic terms and theories needed to understand the workings of forensic science in the laboratory and in the field, as well as the way the law in the US incorporates evidence and scientific experts in court. The electives offered will provide the student exposure to specialized disciplines of his or her choice.

3. ENTRANCE REQUIREMENTS:

Students seeking acceptance into the forensic science minor must meet the following criteria:

- a. Completion of an associate's degree, or 54 credits towards a baccalaureate degree at another school, or 24 credits at The College at Brockport: and
- b. Acumulative grade point average of 25 or better.

4. PROGRAM REQUIREMENTS:

Sample listing (examples):

Sample listing (examples).	
COURSE	CREDITS
CORE COURSES:	
CRJ 304 Investigations	3
CRJ 371 Introduction to Forensic Science	3
CRJ 375 Forensic Law	3
ELECTIVES:	
CHM 205 College Chemistry 1	4
CHM 206 College Chemistry 2	4
PSH 334 Abnormal Psychology	3
TOTAL	20

COURSE	CREDITS
CORE COURSES:	
CRJ 304 Investigations	3
CRJ 371 Introduction to Forensic Sciences	3
CRJ 375 Forensic Law	3
ELECTIVES:	
ANT 110 Introduction to Archaeology	3
ANT 441 Archaeological Analysis	3
CRJ 491.02 Introduction to GIS	3
TOTAL	18

Descriptions of courses:

Descriptions of courses:		
REQURED	3 courses	
CRJ 304: Investigations	Provides a comprehensive examination of investigations relative to both public and private modes, including most major felony processes and relevant civil actions. Focuses on the fundamentals of the investigative process and the range of skills necessary for successful performance and management of investigations, including evidence gathering and analysis, witness assessment, field techniques and linkage between investigative and prosecutorial agencies.	
ORJ 371: Introduction to Forensic Science	Provides a study of the work of the crime lab and the medical examiner. Examines methods of analysis of items commonly found at crime scenes such as: fingerprints, blood, illegal drugs, hairs, fibers, arson residues, bullets, etc. Covers procedures for processing the crime scene and safeguarding evidence.	

ORJ 375: Forensic Law	Serves as an interdisciplinary course covering law, criminal justice, science and technological issues in the evidentiary arena. Provides broad-based assessment of scientific evidence as it relates to litigation theory, tactics, and evidentiary proof.
ELECTIVES	Choose 3 (by advisement)
CPS 301: Issues in Criminal and Forensic Computing	A discussion of issues related to the use of computers in the criminal justice system. Discussions of growing capabilities in and the ramification of such areas as forensic computing, criminal profiling, fingerprint identification, video image processing, and simulation of crime scenes. In addition, discussions of emerging and future trends in the use of computers as a crime fighting tool.
CHM 205 College Chemistry I	(Course fee. Pre-requisite MTH 112 or equivalent) Covers atomic structure, chemical periodicity, inorganic nomenclature, chemical bonding, molecular orbitals, molecular structures, properties of solids, liquids, gases, and solutions, chemical equations, and quantitative problems.
CHM 206 College Chemistry II	(Course fee. Prerequisite: OHM 205) Covers strong and weak electrolytes, reactions, buffer systems, structure and bonding of coordination complexes, kinetics, homogenous and heterogenous equilibrium, thermodynamics, chemical equations, and quantitative problems.
CHM 260 Chemistry for Health Professionals	(Course fee. Prequisite MTH 112 or equivalent and HS chemistry or CHM 111) Emphasizes the thoughts and actions of modern chemists as they seek a broader understanding of the molecular basis of living systems. Entails theory and mathematics appropriate for beginning students, directed towards an appreciation of the relationships between molecular structure and the ability to diagnose and treat disease. Develops the notion of decision making in the intellectual discourse of science.
CHM 303 Analytical Chemistry I	(Course fee. Prerequisite CHM 206) Introduction to analytical methods with emphasis on statistical evaluation of quantitative data and sampling strategies, analytical applications of acid-base equilibria, and chromotographic separations. Also includes a survey of classical volumetric methods, quantitative absorption spectrophotometry, and introduction to ion selective electrode potentiometry.
BIO281: Elements of Human Biology	Provides an introduction for non-majors to the human organism- structure, physiology, metabolism, behavior, genetics, evolution, and ecological relationships. Addresses important issues of health and ethical issues in readings, lectures, and classroom discussions.
BIO302: Genetics	(Prerequisites: BIO201, BIO202, CHM 205, and CHM 206) Covers the gene as the basis of variation and principles of heredity. Includes Mendelian genetics as well as molecular aspects including replication, transcription, and translation. Covers topics in genetic regulation, conjugation, mutation and repair, as well as population genetics. Provides experiments to illustrate the above principles. Includes computer simulations of linkages.
PSH 334: Abnormal Psychology	Surveys major categories of abnormal behavior and their causes. Focuses on understanding and treating maladaptive behavior.
ANT 110 Introduction to Archaeology	Provides an overview of the field of anthropological archaeology while emphasizing the relationship between the past and present. Topics include the history of archaeology, methods and techniques used to recover archaeological data, and an examination of how data are used to understand and interpret human existence in the past, and exploration of particular case studies and important issues in contemporary

	archaeology.
ANT 456 Forensic Anthropology	Explores how forensic anthropology applies skeletal analysis in a variety of settings from criminal investigations to reconstructing what really happened at the Battle of Little Big Horn. Uses case studies, laboratory exercises and field simulations to explore the roles and techniques of forensic anthropology. Complements interests in anthropology, criminal justice, pre-law, pre-medical, criminal justice, and biology.
ANT 441 Archaeological Analysis	(Pre-requisite: ANT 100 or 442 or instructor's permission) Presents contemporary laboratory methods used to identify patterns in artifacts and field data recovered from archaeological site surveys and excavations. Students learn to analyze, interpret, manage, and conserve artifacts and field data.
ANT 442/542 Archaeological Field Methods	As a field-based course, introduces students to the methods used by archaeologists to collect data in the field. Allows students to participate in an archaeological dig at an actual site off-campus, and perform all the duties involved in that work, with activities including survey mapping, testing, excavation, documenting and recording finds, and processing artifacts in the lab.
PHS115 General Physics I with Laboratory	Algebra-based introductory physics. Covers the fundamental principles of mechanics and heat. Closed to anyone who has successfully completed PHS111.
PHS116 General Physics II with Laboratory	Algebra-based introductory physics. Covers sound, electricity, and magnetism, light and quantum physics. Includes experiments on sound, electricity, and magnetism, optics and modern physics. Closed to anyone who has successfully completed PHS 112.
PHS 201 College Physics I with Laboratory	(Co-requisite: MTH 201) Introduces the fundamentals of mechanics and thermodynamics, including kinematics, Newton's laws, energy, rotational motion, kinetic theory of gases, and the first and second law of thermodynamics.
PHS 202 College Physics II with Laboratory	(Pre-requisites: PHS 201 or PHS 211. Co-requisite: MTH 202) Introduces the fundamentals of electricity, magnetism, optics and sound, including the electric field, electric potential, electric circuits, the magnetic field, Maxwell's equations, and wave propagation.
HLS409 Introduction To Alcohol and Other Drugs	Introduces students to a variety of drug problems, including alcohol and tobacco, in contemporary society. Analyzes the diverse determinants (e.g., pharmacologic, behavioral, social, economic, historic) of these problems. Discusses effective substance abuse prevention and treatment strategies.
HLS 428 Substance Abuse and the Criminal Justice System	Introduces students to the impact of alcohol and illicit substances on the criminal justice system. Discusses drug identification, administration, the psychopharmacology theories of alcohol and substance abuse, and investigation techniques. Also addresses the role of alcohol and substance abuse in the criminal justice system and the law enforcement community.
HLS 435/535 Evaluation and Assessment of Alcohol and Other Drugs	(Pre-requisites, Co-requisites: HLS 418 or HLS 409) Covers the theory and methodology of measurement, assessment and evaluation in alcohol and substance abuse and widely researched and utilized methods of assessment: clinical interviews, structured interviews, and standardized instruments. Reviews instruments used in screening, diagnosis, treatment planning and neuropsychological evaluation. Also covers documentation, report writing, and the ethics of assessment. Employs extensive use of clinical materials to illustrate uses and limitations of various techniques.

HLS 445/545	(Pre-requisites, co-requisites: HLS 409, HLS 418) Covers the
Psychopharmacology of Alcohol and Other	effects of alcohol, sedatives, stimulants, opiates, hallucinogens,
Drugs	and other drugs, especially their effects of the central nervous
	system, behavior and mood. Relates the pharmacokinetics and
	pharmocodynamics to intoxication tolerance, withdrawal, abuse
	and dependence of each drug. Includes the learning and
	motivational components of drug tolerance and addiction.
CRJ 321	Covers the extent and nature of crimes against property and
Orime Patterns	person, methods of crime commission, and prevention and
	repression of crime. (Pre req 6 credits of CRJ courses or
CD 1000	instructor's permission)
CRJ 323 White Collar Crime	Provides an historical and contemporary look at white
white conar crime	collar/occupational crime in the US. Analyzes the concept of occupational crime, counting and recording occupational crimes
	and criminals, explanations of occupational criminality,
	organizational occupational crime, professional occupational
	crime, individual occupational crime, and sanctioning, social
	control, and occupational crime.
CRJ 451	Compares and contrasts the criminal justice system of the US
International Criminal Justice Systems	with the systems of other countries.
manata a minara asia aysans	William Systems of Circle Courtings.
CRJ 491.02	GS (Geographic Information Systems) is a computer based data
Introduction to GIS	processing tool for displaying, exploring, and analyzing geo-
	spatial data. Students will learn basic and immediate GS
	applications such as map designs, geodatabases, digitizing
	features, geocoding, spatial data analysis, and real world
	applications of GIS in criminal justice and other areas of
	interest.
CRJ 494	Provides a review and critical analysis of the major
Criminology	criminological theories including the classical school, biological
Стиносу	school; and the psychological, sociological, and psychoanalytic
	orientations, including economic determinism. Considers
	various forms of criminality, as well as studies dealing with the
	frequency of crime in different places at different times. (Pre
	req CRJ 101, coreq SCC 100)
	1.04 0.01 1011 001 04 000 100)
CSC356	Quelies the impact of new technologies
	Studies the impact of new technologies
Life in the Digital Age.	on a global society. Includes the changing nature of
	privacy and growing use of government surveillance, i.e.,
	national ID cards and RFID tracking. Also considers the
	Internet's effect on societal communication and
	differences in gender communication patterns, issues of
	freedom of expression and censorship, the influence of
	technology in the workplace
	and at home, and other relevant topics
QS202 Fundamentals of Information	Pre req. CSC 104 or 106. Introduces the use of information
Systems	systems and information technology in organizations.
-,	Considers concepts of information management, systems
	theory, quality, enhanced decision making, and added
	value in products and services. Stresses information
	technology, including computing and telecommunications
	systems. Teaches students to
	Systems. Teaches students to

- 5. DESCRIPTION OF NEW COURSES AND SIDE-BY-SIDE COMPARISON OF THE OLD AND NEW PROGRAM: NOT APPLICABLE.
- 6. SEQUENCE IN WHICH THE COURSES WOULD BE OFFERED TO GUARANTEE TIMELY COMPLETION OF THE PROGRAM

Core courses for the new minor in Forensic Science are offered on the following tentative schedule:

FALL SEMESTER SPRING SEMESTER

CRJ 304 Investigations CRJ 371 Introduction to Forensic Science

CRJ 375 Forensic Law

Elective courses for this minor are offered on a regular basis (Fall or Spring). This will allow students a choice of electives during either Fall or Spring Semester each academic year.

The proposed minor is not likely to have any effect on transfer students. On the contrary, availability of all proposed courses may improve the likelihood of completing the minor in a timely manner regardless of transfer status.

7. STAFFINGISSUES:

Currently, the Forensic Science Minor would not require any additional faculty or staff as it is proposed.

8. RESOURCES, FACILITIES NEEDED TO IMPLEMENT THE PROGRAM:

The Forensic Science Minor would require basic lab space for one of the core courses, CRJ 371 (Introduction to Forensic Science). Minimal resources (i.e., coordinator's time) will be needed to provide for advisement requirements. No other, additional resources or facilities are required at this time.

9. ACADEMIC ADMINISTRATION COMMENTARY:

Academic administration has been very supportive of this new initiative. Guidance has been provided throughout the process including support from the dean's office (School of Professions) and chairpersons of the other departments who have given permission to allow their respective courses to be part of the minor.

- 1. Department Chairperson's letter of recommendation (attached)
- Dean's letter of recommendation (below)

February 22, 2008

TO College Senate Executive Committee

FR: Korni Swaroop Kumar, Chairperson, Criminal Justice Department

RE: Oriminal Justice Forensic Science Minor Proposal

On behalf of the Department of Oriminal Justice, I am pleased to endorse the establishment of a minor in Forensic Science. This minor involves rigorous interdisciplinary course work, with courses (electives) ranging from chemistry, computation sciences to anthropology.

A) Objectives of the said minor

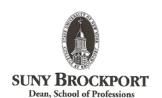
- 1. Demonstrate an understanding of the investigative components of forensics and the various types of evidence obtained in a crime scene investigation.
- Explain the role and the impact of investigative forensics on the criminal justice system.
- Apply analytical and problem solving skills, and
- 4. Articulate the importance of ethics in criminal justice branches.

B.) Outcomes:

- 1. This minor will create an opportunity for students, from a variety of majors, to prepare to respond to the changing needs of the criminal justice profession.
- 2. This minor promises to broaden students' knowledge/skills in the criminal justice system needs.

Professor Ann Bunch's knowledge, professional experience and passion about this subject area make her the appropriate coordinator for this new minor. As a department we are happy to support and encourage her efforts in this endeavor.

Please feel free to contact me for additional information in this matter.



3. LETTERS OF SUPPORT FROM COOPERATING DEPARTMENTS

3. SUPPORTING DOCUMENTATION FROM COOPERATING DEPARTMENTS

1. DOCUMENTATION OF SUPPORT FROM PHYSICS DEPARTMENT

Dr. Bunch:

The Physics Department is happy to support your proposal the a new Minor in Forensic Science. The numbers of students you anticipate taking our algebra-based Physics sequence should not cause a problem with staffing. We look forward to having the Forensic Science students in our classes.

Best wishes,

SFR

Stanley F. Radford, Ph.D. Professor and Chair Department of Physics SUNY Brockport 350 New Campus Drive Brockport, NY 14420 585-395-5576

2. DOCUMENTATION OF SUPPORT FROM PSYCHOLOGY DEPARTMENT

Ann,

You have the psychology department's enthusiastic support for the forensic science minor. We know that many our our majors will be among the first to seek it, and that it will be a helpful recruitment tool for incoming students. What is especially exciting is that it will expose our students to new fields of inquiry and give them opportunities to see the scientific method used to answer real world questions. We are looking forward to participating.

Melissa

3. DOCUMENTATION OF SUPPORT FROM ANTHROPOLOGY DEPARTMENT

Hello Ann,

The Anthropology Department has reviewed your proposal for a new Forensic Science Minor and heartily support the proposal.

LouAnn

LouAnn Wurst Associate Professor and Chair Department of Anthropology (585)395-5706 FAX (585)395-2684 SUNY College at Brockport Brockport, NY 14420

4. DOCUMENTATION OF SUPPORT FROM CHEMISTRY DEPARTMENT

From	sgodlesk@brockport.edu
Date	Tuesday, January 29, 2008 11:59 am
То	abunch@brockport.edu

Ann

The Chemistry Department supports the new Forensic Science minor.

5. DOCUMENTATION OF SUPPORT FROM COMPUTATIONAL SCIENCES DEPARTMENT

Ann,

The Computational Science department supports the new Forensic Science minor. In particular, we will continue to offer CPS/CRJ 301 (Issues in Forensic Computing).

Bob

--

Dr. Robert E. Tuzun, Associate Professor and Chair Department of Computational Science SUNY Brockport 350 New Campus Drive Brockport, NY 14420-2914

6. DOCUMENTATION OF SUPPORT FROM HEALTH SCIENCES DEPARTMENT

Ann.

I apologize for the delay. Yes, HLS does support the proposal. There is a need for cross-training in the addictions and criminal justice. Also, there is some unused capacity in our HLS courses on addictions, despite other areas in HLS being over-enrolled. Therefore, we are willing and able to support this proposal.

Sincerely,
Douglas M. Scheidt, Ph.D.
Associate Professor & Psychologist
Chairperson, Department of Health Science
SUNY College at Brockport
350 New Campus Drive
Brockport, NY 14420

585.395.5356 585.395.5246 (fax)

7. DOCUMENTATION OF SUPPORT FROM COMPUTER SCIENCE DEPARTMENT

Dear Dr. Ann W. Bunch

Having had a chance to discuss with you and Dr. Korni S. Kumar, Chair, Criminal Justice, the proposal for a new Forensic Science minor, the Department of Computer Science is in full support of the program. The Computer Science courses included in the program as electives are open to all students. These courses will provide an appropriate introduction to students interested in computer aspects of a Forensic Science Minor.

Dr. Kad Lakshmanan, Professor and Chair, Computer Science The College at Brockport, State University of New York