

LSC Use Only No: LSC Action-Date: UWUCC USE Only No. UWUCC Action-Date: Senate Action Date:  
 02-84 AP-3/25/03 App 4/29/03

**Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee**

Contact Person Connie J. Sutton	Email Address CJSUTTON
Proposing Department/Unit Geoscience	Phone 7-5626

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

- 1. Course Proposals (check all that apply)**  
 New Course                       Course Prefix Change                       Course Deletion  
 Course Revision                       Course Number and/or Title Change                       Catalog Description Change

Current Course prefix, number and full title                      Proposed course prefix, number and full title, if changing

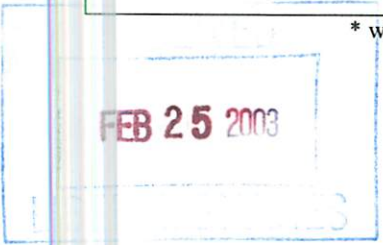
- 2. Additional Course Designations: check if appropriate**  
 This course is also proposed as a Liberal Studies Course.                       Other: (e.g., Women's Studies, Pan-African)  
 This course is also proposed as an Honors College Course.

- 3. Program Proposals**                       Catalog Description Change                       Program Revision  
 New Degree Program                       Program Title Change                       Other  
 New Minor Program                       New Track

General Science  
 Education  
Current program name                      Proposed program name, if changing

4. Approvals	Date
Department Curriculum Committee Chair(s) <i>Darlene Richardson</i>	2-5-03
Department Chair(s) <i>Darlene Richardson</i>	2-5-03
College Curriculum Committee Chair <i>[Signature]</i>	02/19/03
College Dean <i>[Signature]</i>	02/19/03
Director of Liberal Studies *	
Director of Honors College *	
Provost *	
Additional signatures as appropriate: (include title) <i>Joseph Domarack TECC</i>	
<i>Alvin DEAN COEET</i>	2/24/03
UWUCC Co-Chairs <i>Gail S. Schiist</i>	3/25/03

\* where applicable



## I. Description of Catalog Change

### Bachelor of Science in Education – General Science Education (\*)

**Liberal Studies:** As outlined in Liberal Studies section  
with the following specifications: **52**

**Mathematics:** MATH 121 (1)

**Natural Science:** CHEM 111-112

**Social Science:** PSYC 101

**Liberal Studies Electives:** MATH 217, PHYS 111,  
no courses with prefix of chosen track in major

**College:** **29**

**Professional Education Sequence: (1)**

COMM 103 Digital Instructional Technology 3 sh

EDSP 102 Educational Psychology 3 sh

EDSP 477 Assessment of Student Learning:

Design and Interpretation of Educational  
Measures 3 sh

EDUC 242 Pre-student Teaching Clinical Exp I 1 sh

EDUC 342 Pre-student Teaching Clinical Exp II 1 sh

EDUC 441 Student Teaching 12 sh

EDUC 442 School Law 1 sh

EDUC 451 Teaching Science in the Sec School 3 sh

EDEX 301 Educ of Stud with Disabilities  
In Inclusive Secondary Settings 2 sh

**Major:** **36 - 38**

**Required Courses:**

BIOL 103 General Biology I 4 sh

BIOL 104 General Biology II 4 sh

GEOS 111 Earth Science for Educators I 3 sh

GEOS 112 Earth Science for Educators I Lab 1 sh

GEOS 113 Earth Science for Educators II 3 sh

GEOS 114 Earth Science for Educators II Lab 1 sh

PHYS 112 Physics II Lecture 3 sh

PHYS 121 Physics I Lab 1 sh

PHYS 122 Physics II Lab 1 sh

**Controlled Electives:** 15 – 17 sh

Biology track: BIOL 210, 220, 250, 272, 480,  
BIOL elective

Chemistry track: CHEM 231, 321, 351, 232,  
Or 340 or 341

Geoscience track: GEOS 121, 122, 131, 132, 341,  
Or 342, 361, 371

Physics track: PHYS 222, 231, 242, 331, 350 (2)

**Other Requirements:** **0**

**Free Electives:** **1-3**

**Total Degree Requirements:** **120**

(\*) See requirements leading to teacher certification, titled  
“Admission to Teacher Education,” in the College of Education  
and Educational Technology section of this catalog.

(1) Note: If Physics track is elected, MATH 123 and 124 are  
required.

## II.(2a). Table Comparing Old and New Programs

### Bachelor of Science in Education – General Science Education (\*)

**Liberal Studies:** As outlined in Liberal Studies section 55 – 56  
with the following specifications:

**Mathematics:** MATH 121 (1)

**Natural Science:** CHEM 111-112

**Social Science:** PSYC 101

**Liberal Studies Electives:**

BTED/COSC/IFMG 101,

no courses with prefix of chosen track in major

**College:** 30

**Professional Education Sequence: (1)**

COMM 103 Digital Instructional Technology 3 sh

EDSP 102 Educational Psychology 3 sh

EDSP 477 Assessment of Student Learning:  
Design and Interpretation of Educational  
Measures 3 sh

EDUC 242 Pre-student Teaching Clinical Exp I 1 sh

EDUC 342 Pre-student Teaching Clinical Exp II 1 sh

EDUC 441 Student Teaching 12 sh

EDUC 442 School Law 1 sh

EDUC 451 Teaching Science in the Sec School 3 sh

FDED 102 American Ed in Theory and Practice 3 sh

**Major:** 39 - 40

**Required Courses:**

BIOL 103 General Biology I 4 sh

BIOL 104 General Biology II 4 sh

GEOS 111 Earth Science for Educators I 3 sh

GEOS 112 Earth Science for Educators I Lab 1 sh

GEOS 113 Earth Science for Educators II 3 sh

GEOS 114 Earth Science for Educators II Lab 1 sh

PHYS 111 Physics I Lecture 3 sh

PHYS 112 Physics II Lecture 3 sh

PHYS 121 Physics I Lab 1 sh

PHYS 122 Physics II Lab 1 sh

**Controlled Electives:** 15 – 16 sh

Biology track: BIOL 210, 220, 250, 272, 480,  
BIOL elective

Chemistry track: CHEM 231, 321, 351, 232,  
Or 340 or 341

Geoscience track: GEOS 121, 123, 131, 341,  
Or 342, 361, 371

Physics track: PHYS 222, 231, 242, 331, 350 (2)

**Other Requirements:** 0

**Free Electives:** 0

**Total Degree Requirements:** 124 – 126

(\*) See requirements leading to teacher certification, titled  
“Admission to Teacher Education,” in the College of Education  
and Educational Technology section of this catalog.

(1) Special Education Competency Requirement: Revision  
pending will eliminate exam option and will require EDEX 301  
(2sh).

(2) Note: If Physics track is elected, MATH 123 and 124 are  
required.

### Bachelor of Science in Education – Revision General Science Education (\*)

**Liberal Studies:** As outlined in Liberal Studies section 52  
with the following specifications:

**Mathematics:** MATH 121 (1)

**Natural Science:** CHEM 111-112

**Social Science:** PSYC 101

**Liberal Studies Electives:**

MATH 217

PHYS 111

**College:** 29

**Professional Education Sequence: (1)**

COMM 103 Digital Instructional Technology 3 sh

EDSP 102 Educational Psychology 3 sh

EDSP 477 Assessment of Student Learning:  
Design and Interpretation of Educational  
Measures 3 sh

EDUC 242 Pre-student Teaching Clinical Exp I 1 sh

EDUC 342 Pre-student Teaching Clinical Exp II 1 sh

EDUC 441 Student Teaching 12 sh

EDUC 442 School Law 1 sh

EDUC 451 Teaching Science in the Sec School 3 sh

EDEX 301 Educ of Stud with Disabilities  
In Inclusive Secondary Settings 2 sh

**Major:** 36 - 38

**Required Courses:**

BIOL 103 General Biology I 4 sh

BIOL 104 General Biology II 4 sh

GEOS 111 Earth Science for Educators I 3 sh

GEOS 112 Earth Science for Educators I Lab 1 sh

GEOS 113 Earth Science for Educators II 3 sh

GEOS 114 Earth Science for Educators II Lab 1 sh

PHYS 112 Physics II Lecture 3 sh

PHYS 121 Physics I Lab 1 sh

PHYS 122 Physics II Lab 1 sh

**Controlled Electives:** 15 – 17 sh

Biology track: BIOL 210, 220, 250, 272, 480,  
BIOL elective

Chemistry track: CHEM 231, 321, 351, 232,  
Or 340 or 341

Geoscience track: GEOS 121, 122, 131, 132, 341,  
Or 342, 361, 371

Physics track: PHYS 222, 231, 242, 331, 350 (2)

**Other Requirements:** 0

**Free Electives:** 1-3

**Total Degree Requirements:** 120

(\*) See requirements leading to teacher certification, titled  
“Admission to Teacher Education,” in the College of Education  
and Educational Technology section of this catalog.

(1) Note: If Physics track is elected, MATH 123 and 124 are  
required.

## **II.(2b). Summary of Changes: Listing of all description changes and associated course changes.**

### **A. Liberal Studies**

1. Description Changes: Old Program = 55/56 sh; New Program = 52 sh\*
2. Change in requirements:
  - a. Liberal Studies electives – Old = 9 sh, New = 6 sh
    - (1) Delete BTED/COSC/IFMG 101
    - (2) Add MATH 217
    - (3) Add PHYS 111
    - (4) Delete “no course with prefix of chosen track in major”

### **B. Professional Education**

1. Description Changes: Old Program = 30 sh; New Program = 29 sh
2. Change in requirements:
  - a. Delete FDED 102 – 3 sh
  - b. Add EDEX 301 – 2 sh

\*Option of Military Science (which would be shown as 52/53 sh) is not listed as per direction of Chair of UWUCC, see attached email.

## **II.(3). Rationale for Program Change.**

### **A. Liberal Studies electives:**

1. Deletion of BTED/COSC/IFMG 101 – The education students arriving at IUP today have a much better background in the use of the computer than the students ten years ago when the requirement was added. Additionally, the education students receive in-depth computer instruction in COMM 103 which is required during their first three semesters on campus. Students begin to develop their professional portfolio and study the use of the computer as a tool in the classroom. Therefore, it is felt that the previously required computer course is not necessary.
2. The State of Pennsylvania recently added more required mathematics credits for all education majors. Students must have a minimum of 6 sh. Calculus I is required for their Liberal Studies Math requirement. MATH 217 has been added because of the high use of the concepts covered in this course to the discipline of science.
3. PHYS 111 is already required but it is being moved from the list of major courses to this category. This change aligns it with the requirements for other science education majors. This major is often a second major for science education students.
4. Because this section has been reduced to 6 cr, which are specified, this statement is unnecessary.

### **B. Professional Education:**

1. Recently FDED 102 was deleted from the Professional Education core by action of the University Senate.
2. EDEX 301 has been a certification requirement for more than five years but had not been added to this curriculum because of the already high number of credits needed for graduation. Students were informed that they needed to complete it either by enrolling in the course or by taking a test, however, to receive certification. We are now formalizing that requirement by adding it to the program. (The test is no longer an option.).

### **C. Controlled Electives:**

1. Added to the Geoscience list is GEOS 132 Historical Geology Lab. Taking the lecture without the lab severely limits total student comprehension. We have been advising students into the lab but wish to make it formal.

### **III. Implementation**

1. Students currently enrolled in the program will not be affected by these changes but will complete the program which was in place when they first enrolled in it.
2. Faculty resources in our department will not be affected.
3. Other resources also will not be affected.
4. Changes in enrollment are not anticipated.

### **IV. Evaluation**

1. All of the education programs are currently in the middle of the process of evaluation. Preliminary documents were due in May 2002. NCATE will be arriving on campus in November 2003. NCATE follows the science standards prepared by NSTA. In addition PDE will also be reviewing these programs in Spring 2004.
2. NCATE and PDE evaluations occur every five years.
3. NCATE = National Council for Accreditation of Teacher Education  
NSTA = National Science Teachers Association  
PDE = Pennsylvania Department of Education

### **V. Course Proposals**

There are no course revisions for this proposal.

### **VI. Letters of Support or Acknowledgement**

1. Attached is an e-mail from John R. Johnson, Associate Dean of the College of Education, describing the approval for deletion of FDED 102 from the Teacher Education Core.
2. Attached is an e-mail from Dr. Gail Sechrist, Chair of UWUCC, stating that the number of credits listed for Liberal Studies does not have to include the military science option.
3. The Departments of Technology Support and Training, Computer Science, and Management Information Systems and Decision Sciences were notified concerning deletion of BTED/COSC/IFMG 101 and asked to respond by 1/31. Attached is an e-mail from the Computer Science Department.

**Connie Sutton**

**From:** "John Johnson" <jrjohnsn@iup.edu>  
**To:** "Karen Rivosecchi" <krivosecchi@solaris.voced.iup.edu>; "Clarice Reber" <creber@iup.edu>;  
 "Connie Sutton" <cjsutton@iup.edu>; "David Stein" <dwstein@grove.iup.edu>; "Dawn Woodland"  
 <woodland@iup.edu>; "Dee Klein" <dklein1st@yahoo.com >; "Eileen Glisan"  
 <GLISAN@grove.iup.edu>; "Eileen Glisan Home" <glisan@nauticom.net>; "Janet M. Walker"  
 <jwalker@iup.edu>; "Jennifer Rotigel" <jrotigel@grove.iup.edu>; "Joe domaracki"  
 <jwdomara@iup.edu>; "John R. Johnson" <jrjohnsn@iup.edu>; "John Wood"  
 <jtwood@grove.iup.edu>; "Judi Hechtman" <hechtman@iup.edu>; "Judy McDonough"  
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 <LALVINE@grove.iup.edu>; "McPherson, William C" <mcperso@iup.edu>; "Rich Ciganko"  
 <RCiganko@grove.iup.edu>; "Roberta Eddy" <RMEDDY@grove.iup.edu>; "Sally McCombie"  
 <SMCCOMB@grove.iup.edu>; "Sharon Franklin-Rahkonen" <franklin@iup.edu>; "Susan  
 Wheatley" <wheatley@grove.iup.edu >; "Terry Peard" <Tpeard@grove.iup.edu>; "Thomas Lord"  
 <trlord@grove.iup.edu>; "Vicki Damiani" <vdamiani@grove.iup.edu>; "Wayne Moore"  
 <moore@grove.iup.edu>  
**Cc:** "John Butzow" <jwbutzow@iup.edu>; "Ed Nardi" <ewnardi@iup.edu>; "Laurie Stamp"  
 <Instamp@grove.iup.edu>; "Lynn Anne Mocek" <lmocek@iup.edu>; "Judy Geesey"  
 <jgeesey@iup.edu>; "Judi Hechtman" <hechtman@iup.edu>; "John R. Johnson"  
 <jrjohnsn@iup.edu>  
**Sent:** Wednesday, December 04, 2002 9:28 AM  
**Subject:** FDED 102 Removed by Senate from the Educaion Core

**Coordinators of Teacher Education:**

The Senate unanimously approved the proposal to remove FDED 102 from the Teacher Education Core at its December Meeting yesterday afternoon. This change will apply to the incoming Freshmen, Fall 2003. The course will still be required for those candidates "in the pipeline" (most of whom have already taken it or will have taken it by end of Spring Semester 2003) and it will continue to be offered as an elective.

We will want to review specific instances where exceptions may be in order for transfer students and Post-bac students who are already enrolled in a program of study.

If you have been waiting for this move to become official before "mounting efforts" to revise your program curriculum to meet the mandated 120 hour rule, you may proceed with recommended haste. The Academy Curriculum Review Committee, convened by Dean Butzow has been meeting weekly, anticipating there will be curriculum regions to review. To date, the work load has been sparse.

Thanks for all you do!

John

**Connie Sutton**

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**From:** "Gail Sechrist" <gailsech@iup.edu>  
**To:** "Connie Sutton" <cjsutton@iup.edu>  
**Cc:** "Gail S Sechrist" <gailsech@iup.edu>  
**Sent:** Monday, January 13, 2003 9:41 AM  
**Subject:** Re: Curr Question

Yes that would work because there would be a way in which a student could complete the degree in 120 credits. It would be the students choice to take the other option that would bring them over 120 just like many now choose to go over 124 to get the classes they want. The Liberal Studies committee wants you to use the lowest number possible for LS rather than a range.

— Original Message —

**From:** Connie Sutton  
**To:** Sechrist, Gail S  
**Sent:** Monday, January 13, 2003 9:45 AM  
**Subject:** Curr Question

Gail,

I am working on the 120 cr requirement for Earth & Space Science Ed majors. I have it down to 120 credits IF the student takes 3 cr of Wellness. My question: if a student elects Military Sci then it would be 121. Would this proposal fly? It would show 120/121 if I show that option - or is it NOT necessary to show the option?

Thanks,  
Connie

**Connie Sutton**

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**From:** "Jim Wolfe" <jlwolfe@iup.edu>  
**To:** "Connie Sutton" <cjsutton@iup.edu>; <drchrdsn@iup.edu>  
**Sent:** Wednesday, January 29, 2003 9:59 AM  
**Subject:** Re: Deletion of BTED/COSC/IFMG 101

Darlene & Connie,

On behalf of the Computer Science Department, I want to express our disappointment with your decision to no longer require Microbased Computer Literacy; but we understand the situation you are in.

We would expect that science education students would have specific needs for the spreadsheet and database components of the course. We would think that educators would need to deal with simple table-driven data presentation and analysis (the sort of thing that spreadsheets are very good for) and perhaps need to store and retrieve substantial amounts of data (what databases do). Hopefully, the COMM 103 course that you mention will cover some of these aspects of computer use.

Our surveys and the exemption exam for the Microbased Computer Literacy course have revealed that although students often have some knowledge of wordprocessing from High School or other IUP courses, they have little knowledge of spreadsheets and almost no knowledge of databases. Naturally, you know the needs of your students better than I. I hope this change to your requirements works out.

Good luck with your curriculum revision.

Jim Wolfe



**Darlene Richardson**

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**From:** Connie Sutton <cjsutton@iup.edu>  
**To:** Wolfe, James L <jlwolfe@iup.edu>; Szul, Linda M <lfszul@iup.edu>; Burky, Louise B <lbburky@iup.edu>  
**Cc:** Darlene Richardson <drchrdsn@iup.edu>  
**Sent:** Thursday, January 16, 2003 12:04 PM  
**Subject:** re: Deletion of BTED/COSC/IFMG 101

Jim, Louise, Linda,

The Geoscience Department is in the process of revising its two education programs (Earth & Space Science Education and General Science Education) to comply with the 120 credit mandate. Currently both programs require Microcomputer Literacy as one of the Liberal Studies Electives.

When this course requirement was added to the programs, many of our students arrived at IUP without adequate computer skills. However, current students are much more knowledgeable in the use of computers. In addition, one of their education core requirements, COMM 103, is now heavily computer based and is required during the students' first three semesters, and is usually taken prior to the students enrolling in the literacy course. We believe that we can eliminate the requirement without adversely affecting the preparation of these science teachers. The programs are small and would not negatively affect course enrollments; currently there are 18 students majoring in both programs.

We request a letter of support from your department. It would be helpful if we could receive this letter prior to the end of January. Please send it to Dr. Darlene S. Richardson, Chair of the Geoscience Department. Thank you for your time and effort,  
Connie Sutton  
Coordinator, Geoscience Education