**Florida Institute of Technology**  
**ADDING A NEW COURSE TO THE CURRICULUM**

This course is available for student registration only after the approval process has been completed.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>E</th>
<th>D</th>
<th>S</th>
<th>COURSE NO.*</th>
<th>4</th>
<th>9</th>
<th>0</th>
<th>6</th>
<th>CREDIT HOURS</th>
<th>6</th>
<th>TERM TO BE ADDED TO THE FILE</th>
<th>Fall 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e.g., CSE)</td>
<td>(e.g., 1301)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Justify level if 1000-level+ and no co- or prerequisites.

<table>
<thead>
<tr>
<th>CLASS HOURS</th>
<th>LECTURE HOURS</th>
<th>LAB HOURS</th>
<th>CONTACT HOURS (CEU ONLY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>SCHEDULE TYPE</th>
<th>Field (J)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Interdisciplinary Studies</td>
<td>(e.g., Lecture, Lab or Special Topics/Project)</td>
<td></td>
</tr>
</tbody>
</table>

☐ COLLEGE OF AERONAUTICS – 23  
☐ NATHAN M. BISK COLLEGE OF BUSINESS – 24  
☐ COLLEGE OF ENGINEERING – 1  
☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS – 25  
☐ EXTENDED STUDIES DIVISION / NATHAN M. BISK COLLEGE OF BUSINESS – 90

<table>
<thead>
<tr>
<th>COMPUTER TITLE</th>
<th>25 characters, including spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Teaching</td>
<td>Dual-Prefix, Bi-Level, Full-Load? Yes ☐ No X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATALOG TITLE</th>
<th>350 characters, including spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship in Secondary Mathematics and Science Teaching</td>
<td></td>
</tr>
</tbody>
</table>

Serves as the capstone course for students seeking teaching certification. Includes exposure and fieldwork in secondary school classroom. Requires oversight by a school-based teacher and intensive interaction with course instructor. Includes teaching responsibilities for three hours per day over term, using plan developed with teacher/mentor.

This description has been approved by the catalog office. **EmJos 8/21/12**

Catalog Director

**In addition, please attach a course syllabus and/or more detailed description.**

<table>
<thead>
<tr>
<th>RESTRICTIONS</th>
<th>PREREQUISITE</th>
<th>EDS 2502</th>
<th>□ Corequisite</th>
<th>Course Number</th>
<th>□ and □ or</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒</td>
<td>Prerequisite</td>
<td>EDS 2503</td>
<td>□ Corequisite</td>
<td>Course Number</td>
<td>□ and □ or</td>
</tr>
<tr>
<td>☒</td>
<td>Prerequisite</td>
<td>EDS 4502</td>
<td>□ Corequisite</td>
<td>Course Number</td>
<td>□ and □ or</td>
</tr>
</tbody>
</table>

**GRADES TO BE ISSUED**

☐ A, B, C, D, F  
☐ A, B, C, D, F, CEU/Audit  
☐ CEU  
☐ S, U  
☐ P, F  
☐ Other

**ADDITIONAL RESTRICTION**

(e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information and the date/term the course may be removed from the system.

**SUBJECT Prefix (e.g., CSE) | COURSE NO. (e.g., 1301) | TERM TO INACTIVATE**

**APPROVALS:** Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.

**Originator**

**Date** 8/22/12

**Department Head/Program Chair**

**Date** 8/22/12

**Dean or Associate Dean**

**Date** 8/23/12

**Chair, Graduate Council**

**Date**

**Chair, Undergraduate Curriculum Committee**

**Date**

**REGISTRAR'S USE ONLY**

SCACRSE  
SCADETL  
SCAPREQ  
SCABASE  
SCARRES  
Operator Init.  
Date

Catalog Director

**Date**

DISTRIBUTION

Original – Registrar  
Copy – Academic Unit

Florida Institute of Technology • Office of the Registrar

150 West University Boulevard, Melbourne, FL 32901-6975 • (321) 674-8114 • Fax (321) 674-7827

RGR-122-1011
EDS 4906: Apprenticeship in Secondary Mathematics & Science Teaching
Credit Hours: 6 credits
Instructor: Melissa Young & Joseph Laub

Course Prerequisites:
- Admission to the FIT4UTeach
- Completion of EDS 2501-Step 1, EDS 2502-Step 2, and EDS 4503-Knowing and Learning

Course Overview and Description:
Apprenticeship in Teaching Secondary Mathematics and Science is the FIT4UTeach capstone experience in which students apply previously learned techniques and theoretical perspectives of mathematics and science education within a secondary school classroom setting (grades 6-12). This experience will be guided by a school-based cooperating teacher and intensive interaction with a university supervisor. FIT4UTeach Apprentices assume teaching responsibilities and maintain role as teacher for approximately 15 weeks. Depending on the school schedule and the FIT4UTeach Apprentices’ course schedules, FIT4UTeach Apprentice teachers will plan instruction with cooperating teachers and teach the equivalent of 3 hours per day. These experiences will provide opportunities to implement pedagogical principles, particularly classroom and time management, parent/teacher communications, and school organization and dynamics. Also, FIT4UTeach Apprentices will meet weekly for 1 hour in a seminar to examine their instruction and to continue to learn about instructional strategies and content appropriate for secondary level mathematics and science classrooms.

Course Objectives:
Through successful completion of this course, student will:
6. Reflect upon his/her beliefs and attitudes related to an emerging teaching identity through the domains of mathematics and science; teaching and learning; and affective outcomes of instructional practices. [FEAPs: 1. Assessment; 2. Communication; 3. Continuous

This course will support students' beginning knowledge, skills, and dispositions related to the following Florida Educator Accomplished Practices:

Methods of Instruction:
Face-to-face lectures, discussions, and practical applications in field placements

Course Meeting Schedule:
One 1-hour face-to-face seminar for 15 weeks, 12-15 hours per week field placement for 15 weeks, for approximately 200 hours during the semester.

Course Requirements:
Participation (10%) in weekly seminars including completion of readings. Students are expected to attend and participate in all of the seminars. Participation will include discussions of course readings, facilitation of select topic discussions, and share experiences from the Apprentice Teaching. Participation also includes attendance in field placement.

Planning instruction (20%). Students will develop and submit for review formal plans for instruction. Apprentice teachers’ responsibilities in the classroom will increase over time during the semester, resulting in a minimum of 2 weeks full-time instruction.

Implementing instruction (30%). Student instructional practices will be monitored by a cooperating teacher and intermittent observations by the University supervisor. Apprentice teachers’ responsibilities in the classroom will increase over time during the semester, resulting in a minimum of 2 weeks full-time instruction.

Weekly “Reflections on Practice” papers and statements on progress to program proficiencies and portfolio requirements (10%) based on critical self-analysis of Apprentice’s own instruction.

Final Portfolio (30%) provides evidence of meeting the Florida Educator Accomplished Practices for new teachers. Seminar time will be devoted to in-depth attention to each section of this final portfolio. The culminating activity, or teacher work sample, of the final portfolio, is outlined below.

The FIT4UTeach Teacher Work Sample/ Culminating Activity
The teacher work sample is both a product of apprentice teaching and part of the process of learning to teach. As a product, the teacher work sample serves as a measure of an FIT4UTeach Apprentice’s ability to impact student learning outcomes through a systematic approach to teaching, as documentation that FIT4UTeach Apprentices have met expectations for performance, and as a source of data to evaluate program effectiveness. As a process, engaging in teacher work sample methodology will structure and make apparent the complex act of teaching to promote student understanding, deepen the reflective thinking of FIT4UTeach Apprentices as to make better connections
between theory and practice, and identify authentic teaching strategies that lead to improved mathematics and science student achievement. At a point in the Apprenticeship deemed appropriate by the school-based cooperating teacher, the university-based supervisor, and the Apprentice, a contained unit of instruction will be identified that lasts at least two weeks. As the culminating experience of the Apprenticeship, the unit of instruction must be a minimum of two weeks. Apprentices will conduct pre-assessments of student knowledge and skills, identify developmentally appropriate learning goals, lesson/lab strategies, and assessment strategies prior to teaching. During teaching, Apprentices collect both formal and informal assessments of student understanding. After the unit is complete, FIT4U Teach Apprentices utilize multiple forms of assessment data to analyze student learning and reflect on relative effectiveness of teaching strategies as well as set goals for continued professional growth. In short, FIT4U Teach Apprentices learn to plan, assess, reflect upon, and revise their teaching the way an expert teacher might.

Grading Scale:

A = (90 – 100) %
B = (80 – 90) %
C = (70 – 80) %
D = (60 – 70) %
F = Below 59%.

Topical Outline:

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC</th>
<th>READINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 &amp; 10</td>
<td>Reflect on practice as a teacher intern.</td>
<td>Koballa: Sec 12</td>
</tr>
</tbody>
</table>

**Readings:**


Other readings may be assigned to meet specific Apprentice needs.

**Other Resources:**


National Science Teacher Association. The Science Teacher. (Starter subscription)

**Academic Integrity**

Students are expected to act in accordance with the Florida Institute of Technology policy on academic integrity.

Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior and may result in a reduction of course grade and a report to university officials.

**Attendance and Make-up Exams and Assignments**

Students are expected to attend all class sessions. Much of the work in this course occurs during class sessions and cannot be repeated outside class in an equivalent manner. Students who have difficulty meeting this expectation should speak with the instructor to determine whether make-up assignments or exams are possible. Absence for permitted religious reasons will be handled accordingly.
Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students with academic concerns related to this course should contact the instructor in person or via email. Students also may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor.
Apprentice Teaching 4906

Course Overview and Description:
Apprenticeship in Teaching Secondary Mathematics and Science is the FIT4UTeach capstone experience in which students apply previously learned techniques and theoretical perspectives of mathematics and science education within a secondary school classroom setting (grades 6-12). This experience will be guided by a school-based cooperating teacher and intensive interaction with a university supervisor. FIT4UTeach Apprentices assume teaching responsibilities and maintain role as teacher for approximately 15 weeks. Depending on the school schedule and the FIT4UTeach Apprentices' course schedules, FIT4UTeach Apprentice teachers will plan instruction with cooperating teachers and teach the equivalent of 3 hours per day. These experiences will provide opportunities to implement pedagogical principles, particularly classroom and time management, parent/teacher communications, and school organization and dynamics. Also, FIT4UTeach Apprentices will meet weekly for 1 hour in a seminar to examine their instruction and to continue to learn about instructional strategies and content appropriate for secondary level mathematics and science classrooms.