Washington State University
MAJOR CURRICULAR CHANGE FORM - - COURSE
(Submit original signed form and ten copies to the Registrar's Office, zip 1035.)

Future Effective Date: 08/16/2013  ☑ New course  ☐ Temporary course  ☐ Drop service course
(effective date cannot be retroactive)  ☐ There is a course fee associated with this course (see instructions)

☐ Variable credit
☐ Increase credit (former credit _________)
☐ Number (former number _________)
☐ Crosslisting (between WSU departments) (Must have both departmental signatures)
☐ Conjoint listing (400/500)
☐ Request to meet Writing in the Major [M] requirement (Must have All-University Writing Committee Approval)
☐ Request to meet GER in _________ (Must have GenEd Committee Approval)  ☐ Fulfills GER lab (L) requirement
☐ Professional course (Pharmacy & Vet Med only)  ☐ Graduate credit (professional programs only)
☐ Other (please list request)

T&L      591  Research Internship in Math/Science Education
course prefix  course no.  title

3

credit  lecture hrs  lab hrs  studio hrs  prerequisite
per week  per week  per week

Description (20 words or less)
This course provides opportunities for students to work closely with an accomplished researcher to observe, learn, and practice research methods.

Instructor:  David Slavit  Phone number: (360) 546-9653  Email: dslavit@wsu.edu
Contact:    Debra Barnett  Phone number: (360) 546-9660  Email: debarnett@vancouver.wsu.edu
Campus Zip Code:  98601

- Please attach rationale for your request, a current and complete syllabus, and explain how this impacts other units in Pullman and other branches (if applicable).
- Secure all required signatures and provide 10 copies to the Registrar’s Office.

Chair/Date  Dean/Date  General Education Com/date

Chair (if crosslisted/interdisciplinary)*  Dean (if crosslisted/interdisciplinary) *  Graduate Studies Com/date

All-University Writing Com/date  Academic Affairs Com/date  Senate/date

*If the proposed change impacts or involves collaboration with other units, use the additional signature lines provided for each impacted unit and college.
Course Rationale

T & L 591: Research Internship in Math/Science Education

The internship course will provide PhD and EdD students with preparation for conducting dissertation research through immersion in an existing research project. The objective for the course is to provide an opportunity for students to work closely with an accomplished researcher to observe, learn, and practice research methods in the area of mathematics and/or science education. The instructor of record for the course will be the internship coordinator. This coordinator will collect internship proposals from faculty, distribute them to students for selection and assignment, and supervise the internship experiences, in coordination with each intern’s assigned project faculty member.

The course has no anticipated impacts on other units in Pullman. The course will be available to students at all campuses who are interested in mathematics and/or science educational research. The course will be taught on a rotating basis by faculty on the Pullman, Spokane, Tri-Cities and Vancouver campuses to ensure equitability in faculty load.
T & L 591: Research Internship in Math/Science Education
Teaching and Learning Department
College of Education
Washington State University

Course Description and Objective

The internship course will provide students with preparation for conducting dissertation research through immersion in an existing research project. The objective for the course is to provide an opportunity for students to work closely with an accomplished researcher to observe, learn, and practice research methods. The instructor of record for the course will be the internship coordinator. This coordinator will collect internship proposals from faculty, distribute them to students for selection and assignment, and supervise the internship experiences, in coordination with each intern’s assigned project faculty member, as described in greater detail below.

Course Overview

In this course, students will serve as an intern on a research project currently conducted by a T&L math or science education faculty member or a faculty member in a related area. Intern responsibilities will include any or all of the following:
- Development of a project-based literature review
- Data collection
- Data analysis
- Report of results

Interested faculty will submit internship proposals to the coordinator one semester before the internship course. These proposals will describe the nature of the research project the faculty member conducts, the potential types of work an intern could complete in the project and the readings that would be required of the intern. This work might include conducting interviews or observations, analyzing interview or observation data, or conducting quantitative or qualitative data
analysis. All work must be clearly related to intern learning and should not include activities such as transcribing or other tasks that are unlikely to contribute to significant learning.

Readings might include articles that explain the theoretical framework of the study, design approach, and rationale for the data collection and analysis approaches, as well as previously published articles related to the project if such articles exist.

The coordinator will provide all proposals to students who will be taking the internship course. Students will identify a preference ranking among the options, and after the coordinator determines which project each student will join, the student will propose the nature of the work he or she will do and tentative deadlines for completion of each part. This proposal will serve as a contract between the intern and project faculty member. Interns and their project faculty member will meet together at least 5 times, occurring at least once each month during the internship to discuss work progress. The internship coordinator will attend 2 of these meetings. During the semester, the coordinator will also communicate frequently with students and faculty in each project to ensure that each student and faculty participant is meeting the expectations for the work.

Upon completion of the internship, students will prepare a culminating paper that compares and contrasts the theoretical framework and approach used in the project with the potential framework and approach they plan to use in their dissertation research.

**Intern Evaluation**

Because of the individualized nature of the course, the student intern and faculty mentor will discuss, develop, and submit to the internship coordinator precise grading criteria. Although the final responsibility for assigning the course grade resides with the course coordinator, the coordinator will work with the faculty mentor in assigning the final grade. The following provide guidance to this process:

A: Exceptional work, meets all criteria and exceeds expectations as outlined in the internship project proposal.
A+: Excellent work, well-developed project, scholarly approach, demonstrates initiative and problem solving skills (goes beyond merely following mentor's directions/instructions and contributes to the thinking and decisions in executing the project).
B+: Fully accomplished all proposed goals described in the internship project proposal; demonstrates an understanding of the concepts, processes, theories, and approaches of the project.
B: Accomplished primary goals described in the internship project proposal and/or all goals were addressed but not fully explored; demonstrates basic understanding of the concepts, processes, theories, and approaches of the project.
B-: Satisfactory work.
C+,C-,C-: Minimally satisfactory/Partial accomplishment, minimal requirements of the project goals were accomplished, lack of evidence of thorough understanding of the concepts, processes, theories, approaches of the course/assignment.
D: Failed to accomplish most proposed goals described in the internship project proposal; only marginal understanding of the concepts, processes, theories, and approaches of the project.
F: Failed to execute the proposed project, extremely poor work, approach to project lacked scholarly focus and approach, demonstrated lack of initiative and problem solving skills.

Sample Internship Description

Janet Frost is offering an internship related to the Riverpoint Advanced Mathematics Partnership professional development project. This project involves work with secondary and postsecondary mathematics and mathematics education faculty in order to improve students’ transition from high school to college mathematics courses. Research on this course includes both quantitative and qualitative analysis. Interns in this project could choose to participate in any of the following activities:

I. Lesson observations
   a. Attendance at observations
   b. Analysis of observation videotapes, including but not limited to:
      i. Lesson structure, objectives, and activities
      ii. Student attributes (e.g., engagement/perseverance)
      iii. Classroom discourse
      iv. Cognitive demand
      v. Assessment

II. Workshop observations
   a. Analysis of workshop interactions and work, including but not limited to:
      i. Team interactions
      ii. Participant engagement
      iii. Participant mathematics content: explanations, responses

III. Teacher, administrator, student interviews
   a. Development of interview questions
   b. Interview attendance or participation
   c. Analysis of interview transcripts, including but not limited to topics such as:
      i. Teacher intent
      ii. Teacher curricular reasoning
      iii. Teacher change
      iv. Similarities and differences across teacher courses, multiple teachers, grade levels
      v. Administrator project knowledge
      vi. Administrator change
      vii. Student response to course design
viii. Student identification of issues
ix. Student change

IV. Project workshop data analysis
   a. Student work on common tasks across all grade levels and institutions
   b. Teachers' concept maps
   c. Teachers' self-reported changes

Depending on the intern selection among the options above, a reading list and schedule will be assigned.

Sample reading list (Weekly assignments will be determined by the project faculty and intern, according to the intern's proposal.)

Qualitative interviews and case studies


Project issue and descriptions; student learning in mathematics

Academies Press, 2005


Professional Learning Communities


Teacher professional development


Mathematics teacher beliefs, identities, and contexts


**Teacher learning and change**


**General Information and Expectations**

**Disability Accommodation:** Reasonable accommodations are available for students with a documented disability. All accommodations must be approved through your WSU Disability Services office. If you have a disability and need accommodations, we recommend that you begin the process as soon as possible. All accommodations must be approved through Disability Services. For more information, contact a Disability Specialist on your home campus.

- **Spokane** /students/current/StudentAffairs/disability/index.html
- **Pullman** http://accesscenter.wsu.edu
- **Tri-Cities:** http://www.tricity.wsu.edu/disability/index.html
- **Vancouver:** http://studentaffairs.vancouver.wsu.edu/student-resource-center/disability-services

**Academic Integrity:** Academic integrity is the cornerstone of the university and will be strongly enforced in this course. Any student found in violation of the
academic integrity policy will be given an “F” for the course and will be referred to
the Office of Student Conduct. Read http://academicintegrity.wsu.edu/
For additional information about WSU’s Academic Integrity policy, procedures, and
definitions, please check online at
http://www.conduct.wsu.edu/default.asp?PageID=338 and
http://www.conduct.wsu.edu/.
Note: Plagiarism is a violation of academic integrity. Students sometimes do not
realize what constitutes plagiarism. Please read the information at

Emergency Notification System: WSU has made an emergency notification
system available for faculty, students and staff. Please register at myWSU with
emergency contact information (cell, email, text, etc). You may have been prompted
to complete emergency contact information when registering for classes on RONet.
In the event of a Building Evacuation, a map at each classroom entrance shows the
evacuation point for each building. Please refer to it.
Finally, in case of class cancellation campus-wide, please check local media, the
appropriate WSU web page and/or http://www.flashalert.net/. Individual class
cancellations may be made at the discretion of the instructor. Each individual is
expected to make the best decision for their personal circumstances, taking safety
into account.

Audio, video, digital, commercial note-taking and other recording during
class: Copyright (insert year) (insert Faculty Name) as to this syllabus, all lectures,
and course-related written materials. During this course students are prohibited
from making audio, video, digital, or other recordings during class, or selling notes
to or being paid for taking notes by any person or commercial firm without the
express written permission of the faculty member teaching this course.
Christine,
I believe I have taken care of the suggested changes. I have also worked with my colleague Tamara Holmlund Nelson in taking care of the edits required for T&L 531.

Specifically, here are the changes made:

T&L 581: (see attached)
SLOs have been added under "Course Objectives"
An additional week of readings has been added to the syllabus
Clarification was provided to the individual assignments, as well as the overall grading scale

T&L 531: (see attached)
An additional week has been added to the course schedule

T&L 584:
One of the weeks will serve as spring break

T&L 591:
We are comfortable with changing the maximum to 6 credits. This would still allow for a year-long research internship at 3 credits per semester

Thanks for the feedback. If I can be of any further help to the committee, or if you desire to meet with me, please let me know.
Also, if you have emailed any of the other program faculty besides Tamara Nelson about changes to course syllabi, could you please let me know? I am trying to coordinate this effort.

Thanks again,

Dave

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Hello Dr Slavit

I am on the Catalog Subcommittee and have reviewed your submissions for T & L 581, 585, and 591. I'm requesting that you submit a revised syllabi for these courses with the following changes that meet WSU syllabus guidelines:

1. 581 – All WSU syllabi are required to have explicit student learning outcomes. Please include the SLOs for this course. The current schedule has 14 weeks of instruction – week 8 is designated as “spring break;” please include a 15th week. The Subcommittee was confused about the grading scale. Please indicate the points or percentages assigned to the various graded work in the course and revise the scale to indicate what constitutes a A, B, etc based on these percentages or point distributions. Thanks!
2. 584 – This course schedule has 16 weeks. Please indicate if one of the seeks is a break week or just let me know that you plan to utilize finals week as a teaching week.
3. 591 – The Subcommittee is concerned about the 9 repeatable credits. Given the nature of the research internship, we suggest that the course might be applicable for repeating twice (6 cum max hours), rather than 9. We will need a rationale for the 9 cum max credits if you would like this request to remain.

Thanks so much. Please don’t hesitate to contact me with your questions or concerns. You can send the revised syllabus directly to me!

Take care,

Christine

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WASHINGTON STATE UNIVERSITY
INTERNATIONAL PROGRAMS