Term Information

| Effective | Term |
|-----------|-------|
| Previous | Value |

Spring 2023 Summer 2012

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

A number change from Ling4597.01 to 3902.

The course was originally 597, and converted to 4597.01 with the former GE shift. Attached in this proposal is the 597 syllabus.

What is the rationale for the proposed change(s)?

The course content and requirements reflect those of a 3000 level course.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

We will replace the original number with the new number in our curricular map.

We have submitted this to the Open Themes MMI, and if approved, will propose it to be a GE course.

Is approval of the requrest contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

| Course Bulletin Listing/Subject Area | Linguistics |
|--------------------------------------|---|
| Fiscal Unit/Academic Org | Linguistics - D0566 |
| College/Academic Group | Arts and Sciences |
| Level/Career | Undergraduate |
| Course Number/Catalog | 3902 |
| Previous Value | 4597.01 |
| Course Title | Language Endangerment and Language Death |
| Transcript Abbreviation | Lang Endangr&Death |
| Course Description | Examines language endangerment and language death to reach an understanding of the forces threatening the survival of over half of today's 6,000 languages. |
| Semester Credit Hours/Units | Fixed: 3 |

Offering Information

| Length Of Course | 14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week |
|--|--|
| Flexibly Scheduled Course | Never |
| Does any section of this course have a distance education component? | No |
| Grading Basis | Letter Grade |
| Repeatable | No |
| Course Components | Lecture |
| Grade Roster Component | Lecture |
| Credit Available by Exam | No |
| Admission Condition Course | No |
| Off Campus | Never |
| Campus of Offering | Columbus, Lima, Mansfield, Marion, Newark, Wooster |

Previous Value

Columbus

Prerequisites and Exclusions

| Prerequisites/Corequisites | None |
|----------------------------|---|
| Previous Value | Prereq: Jr or Sr standing. |
| Exclusions | |
| Previous Value | Not open to students with credit for Linguist 597.01. |
| Electronically Enforced | No |

Cross-Listings

Cross-Listings

Subject/CIP Code

| Subject/CIP Code | 16.0102 |
|------------------|--|
| Subsidy Level | Baccalaureate Course |
| Intended Rank | Freshman, Sophomore, Junior, Senior, Masters, Doctoral |

Requirement/Elective Designation

General Education course:

Cross-Disciplinary Seminar (597 successors and new) The course is an elective (for this or other units) or is a service course for other units

Course Details

| Course goals or learning | • Students will reflect upon the reasons for expansionist colonialism and how these factors affect the use and vitality of |
|--------------------------|--|
| objectives/outcomes | languages used by colonized/indigenous populations. |
| | • Students will react meaningfully to accounts of the immigrant and/or minority experience to come to an |
| | understanding of the interconnectedness of individuals, social groups, and geopolitics in shaping such experience. |
| | • Students will recognize the ideologies underlying and informing indigenous and immigrant minority speakers' own |
| | use of their language and their attempts at language maintenance and revitalization. |
| | • Students will react meaningfully to scholarly, literary, and cinematic renditions of themes pertaining to the immigrant |
| | and/or minority experience by way of exploring the complexities of such experience. |
| Previous Value | |
| Content Topic List | Globalization of language |
| | Language minorities |
| | • Language extinction |
| | Language endangerment |
| | • Language change |
| Sought Concurrence | No |
| | |

COURSE CHANGE REQUEST 3902 - Status: PENDING

| Attachments |
|--------------|
| Allachinenis |

• Linguistics3902--Syllabus 041422.docx: 3902 Syllabus

- (Syllabus. Owner: McGory,Julia Tevis)
- Ling597Syllabus2011.pdf: 597 Syllabus
- (Syllabus. Owner: McGory,Julia Tevis)
- Curricular Map 04-14-22.docx: Curriculum Map
- (Other Supporting Documentation. Owner: McGory, Julia Tevis)
- Linguistics3902--Syllabus_REVISED_LegacyGE.docx: Revised 3902 Syllabus (Syllabus. Owner: McGory, Julia Tevis)

Comments

• Attached is an updated 3902 syllabus with the new (MMI) GE information removed, the LGE (Cross-disciplinary Seminar) information added in, and the grading scale corrected.

Please send any comments to Julia McGory.1@osu.edu. (by McGory,Julia Tevis on 06/02/2022 10:07 AM)

• Please see Panel feedback email sent 06/01/2022. (by Hilty, Michael on 06/01/2022 11:07 AM)

Workflow Information

| Status User(s) | | Date/Time | Step | |
|--------------------|---|---------------------|------------------------|--|
| Submitted | McGory,Julia Tevis | 04/14/2022 02:48 PM | Submitted for Approval | |
| Approved | McGory,Julia Tevis | 04/14/2022 02:49 PM | Unit Approval | |
| Revision Requested | Vankeerbergen,Bernadet te Chantal | 04/22/2022 01:29 PM | College Approval | |
| Submitted | McGory,Julia Tevis | 04/26/2022 12:53 PM | Submitted for Approval | |
| Approved | McGory,Julia Tevis | 04/26/2022 12:53 PM | Unit Approval | |
| Approved | Vankeerbergen,Bernadet te Chantal | 04/26/2022 01:21 PM | College Approval | |
| Revision Requested | Hilty,Michael | 06/01/2022 11:07 AM | ASCCAO Approval | |
| Submitted | McGory,Julia Tevis | 06/02/2022 10:07 AM | Submitted for Approval | |
| Approved | McGory,Julia Tevis | 06/02/2022 10:07 AM | Unit Approval | |
| Approved | Vankeerbergen,Bernadet te Chantal | 06/03/2022 05:01 PM | College Approval | |
| Pending Approval | Cody,Emily Kathryn Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadet te Chantal Steele,Rachel Lea | 06/03/2022 05:01 PM | ASCCAO Approval | |

Linguistics 3902: Language Endangerment & Language Death

Dr. Brian D. Joseph

Class meetings: Twice a week, 80 minutes per class meeting Office hours: Tuesday 11:00 – 12:00 / Wednesday 2:00 – 3:00 (but preferably by appointment; meetings can be in-person or via Zoom, and note that I am available for consultation via e-mail on a regular basis)

Contact: joseph.1@osu.edu / 614-292-9446

Course Website: Carmen offers an electronic presence for the course; I expect you to check the Carmen site for the course regularly for announcements, assignments, and the like. Various course materials will be posted in the "Content" area of the Carmen site for the course.

Class description:

Of the c.7,000 languages in the world today, more than half are seriously in danger of losing all their speakers and thus dying out altogether as living languages. The chief focus of this course is to study this phenomenon of *language endangerment* (and *language death*, a.k.a. *language dormancy*)—and by the same token, *dialect endangerment* (and *death/dormancy*)—from a number of perspectives, considering the following questions as guiding foci for the course content:

- what are the social, economic, and political factors causing language/dialect endangerment?
- how does minority status for a language/dialect affect its speakers?
- what is the relationship between immigration, colonization, and forced migration on the one hand and the emergence of potentially fragile linguistic minorities on the other?
- what effects can endangerment have on the structure of a language/dialect?
- are there meaningful parallels between language/dialect endangerment and the endangerment of biological species? Between linguistic diversity and bio-diversity?
- is language/dialect endangerment a new phenomenon or a millennia-old one?
- can language/dialect endangerment and death be reversed? Are revitalization efforts possible? Are they successful?
- do new language forms that arise as immigrant varieties of the dominant majority language or as a result of colonization (i.e., "creoles") serve to stem the tide of language endangerment?
- what can be done to document languages/dialects that are threatened with extinction?

The course does not presuppose any knowledge of linguistics. Throughout the semester, critical principles and methods of linguistics are introduced as needed that are relevant to the study of language endangerment (e.g., the embedding of language in society, the interaction between language and culture, the relation of speakers to their language, how languages are structured, how languages change, etc.).

Objectives and learning outcomes:

This class fulfills the Legacy General Education requirement for a Cross-Disciplinary Seminar:

Learning Goals: Students demonstrate an understanding of a topic of interest through scholarly activities that draw upon multiple disciplines and through their interactions with students from different majors.

Expected Learning Outcomes:

- Students understand the benefits and limitations of different disciplinary perspectives.
- 2. Students understand the benefits of synthesizing multiple disciplinary perspectives.
- 3. Students synthesize and apply knowledge from diverse disciplines to a topic of interest.

This class will fulfill these Expected Learning Outcomes by having students examine factors in language endangerment, language loss, and threats to language viability, viewing these linguistic issues primarily through the lens of what it means to be a member of a minority and how minority status within a larger polity has an impact on language use by individuals and groups. Students will read, analyze, and evaluate multiple disciplinary perspectives on language endangerment and language loss, and will learn to synthesize these different disciplinary perspectives through multiple assignments engaging with these ideas and simulating the experiences of minorities as well as fieldworkers and community activists battling the linguistic effects of minority life.

Required readings:

Language Death, by David Crystal (Cambridge Univ. Press, 2002) [required]
When Languages Die. The Extinction of the World's Languages and the Erosion of Human Knowledge, by K. David Harrison (Oxford Univ. Press, 2007) [required]
Revivalistics, by Ghilad Zuckerman (Oxford Univ. Press, 2022) [required]

Plus: various articles as well as book chapters, mostly from linguistics journals or e-books *that are* available in downloadable form through Main Library; the nondownloadable readings will be placed on the Carmen website for the course.

Bird, Steven & Gary Simons. 2003. Seven dimensions of portability for language documentation and description. *Language* 79.557-582. [26 pp.]

Dobrin, Lise. 2008. From linguistic elicitation to eliciting the linguist: Lessons in community empowerment from Melanesia. *Language* 84.2.300-324. [25 pp.]

Dorian, Nancy. 1993. A response to Ladefoged's other view of endangered languages. Language 69.575-579. [5 pp.] *Gramley, Chuck & Christine Wilson. 2005. ASL in Central Ohio. In Language diversity in Michigan and Ohio.

Towards two state linguistic profiles (Ed. by B. Joseph, C. Preston, & D. Preston. Caravan Books). [6 pp.] Grenoble, Lenore & Lindsay Whaley. 2005. Review article on Language Endangerment and Language Maintenance

and Language Death and Language Maintenance. Language 81.4.965-974. [10 pp.]

Hale, Kenneth; Michael Krauss; Lucille Watahomigie & Akira Yamamoto; Colette Craig; La Verne Jeanne; Nora England. 1992. Endangered languages. *Language* 68.1-42. [42 pages]

Hinton, Leanne. 1994. Flutes of Fire: Essays on California Indian Languages. Berkeley: Heyday Books.

Kahane, Henry & Renee Kahane. 1979. Decline and survival of Western prestige languages. *Language* 55.183-98. [16 pp.]

*Keiser, Steven H. 2005. Pennsylvania German in Ohio. In *Language diversity in Michigan and Ohio. Towards two state linguistic profiles* (Ed. by B. Joseph, C. Preston, & D. Preston. Ann Arbor: Caravan Books). [21 pages]

Kurz, Claudia. 1998. Prepositions, Noun Phrases, and Simplification in Contact Varieties of German. Ph.D. dissertation, The Ohio State University.

Ladefoged, Peter. 1992. Another view of endangered languages. Language 68.809-811. [3 pages]

Mufwene, Salikoko. 2004. "Language birth and death". Annual Review of Anthropology 33.201-222. [22 pp.]

*Pappas, Panayiotis. 2005. "Greek in Columbus, Ohio". In *Language diversity in Michigan and Ohio. Towards two state linguistic profiles* (Ed. by B. Joseph, C. Preston, & D. Preston. Ann Arbor: Caravan Books) [7 pages]

*Ramos-Pellicia, Michelle. 2005. The pronunciation of Spanish in Lorain, Ohio. In *Language diversity in Michigan* and Ohio. Towards two state linguistic profiles (Ed. by B. Joseph, C. Preston, & D. Preston. Ann Arbor: Caravan Books). [15 pages]

Vigoureux, Cécile B. & Salikoko S. Mufwene, eds. 2020. *Bridging Linguistics and Economics*. Cambridge University Press

Wolfram, Walt & Natalie Schilling-Estes. 1995. Moribund dialects and the language endangerment canon: The case of the Ocracoke Brogue. *Language* 71.696-721. [26 pages]

Zuckerman, Ghilead. 2022. Revivalistics. Oxford University Press.

Course Requirements (with percentage toward final grade):

| 1. Keeping up with assigned readings: | 0% (but crucial to the successful completion of other requirements) |
|---|---|
| 2. Regular class attendance: | 1 1 / |
| 3 . Adopt-a-language project (in-class presentation and | |
| write-up; work in small groups (up to three students) is permitted with approval) | 30% (see below on collaboration) |
| 4. Field Experience Exercises (details forthcoming) | |
| a. Virtual fieldwork (via internet) | 10% |
| b. Live linguistic or genealogical fieldwork report: . | 10% |
| 5. Mini Written Assignments: | |
| a. 1 st assignment (on newspaper item): | 5% |
| b. Questions re 1 st Movie: | 5% |
| c. Questions re 2 nd Movie: | 5% |
| 6. Preparation for and participation in Class Debate | |
| (details forthcoming; NB: the debate serves as the | |
| final exam and is held during the final exam period): | 30% |

I reserve the right to alter the number of assignments – and thus the value of particular assignments – as the course progresses; however, I will **not** add assignments, but will only at most delete some (if at all).

Grading Policies

1. WRITTEN ASSIGNMENTS: these must all be written in English that is *clear enough to allow me to be sure you know what you are talking about*. Thus, you should write in *complete sentences* and *coherent paragraphs* and make sure your writing is free from mechanical errors. Papers are graded primarily on content, but matters of style, diction, organization, and grammar count towards the grade, especially where errors and/or lapses interfere with the clear presentation of your ideas. Papers unacceptable due solely to poor writing *may be rewritten* (the two versions being averaged to yield the ultimate grade). Where possible, you should feel free to turn in preliminary drafts (well before the due date) so that I can make suggestions on your writing.

2. POINTS ASSIGNED: All assignments are given a number of points out of a total of 1000 that they are worth, commensurate with their percentage towards the final grade (thus a 5% assignment is worth 50 points, a 30% assignment is worth 300, and so on). The larger assignments have points assigned to subparts (e.g. the class presentation for the adopt-a-language assignment is worth 150 points and the written report on the assignment is worth 150). For the most part, each assignment is given with very specific guidelines spelled out regarding what needs to be done and how the accomplishment and execution of the requirements contributes to the grade for the assignment; points are assigned in each category of requirement and added up to give the total grade. The final grade is based on the total points earned, with point totals corresponding to letter grades as follows:

| 930 - 1000 = | А | 730 - | 769 | = | С |
|--------------|----|-------|-----|---|----|
| 900 - 929 = | A- | 700 - | 729 | = | C- |
| 870 - 899 = | B+ | 670 - | 699 | = | D+ |
| 830 - 869 = | В | 600 - | 669 | = | D |
| 800 - 829 = | B- | 0 - | 599 | = | Е |
| 770 - 799 = | C+ | | | | |

- 3. FURTHER ON ASSIGNMENTS, MISCELLANEOUS:
 - ALL ASSIGNMENTS MUST BE DONE AND TURNED IN, ON TIME, via Carmen as an upload of an electronic document or as entered into a textbox; the due date and time are indicated on the assignment as given in Carmen.
 - Late assignments automatically lose credit, though turning in a paper late is preferable to not turning it in at all, as a missing paper receives a zero. Papers more than two weeks late will **not** be accepted, however.
 - Collaboration with classmates on individual assignments is perfectly acceptable, as far as discussing strategies and concepts is concerned -- often two (or more) can learn far more about an assignment by discussing it together. However, any work you turn in must ultimately be defendable as your own effort and yours alone. Any work suspected of not adhering to this ethical standard will be referred to appropriate University disciplinary committees. Those assignments that are designed for small groups (the debate especially but some groups are permissible for the adopt-a-language assignment) of course permit sharing of ideas and to the extent that the final product is a group effort, the grade will reflect the overall group success but also individual contributions to the product (e.g. the individual presentations during the debate).

Academic misconduct and plagiarism:

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). See the Code of Student Conduct: https://trustees.osu.edu/rules/code-of-student-conduct/3335-23-04.html

Disability:

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

CLASS SCHEDULE

This course is organized around 11 topics, roughly one per week for a semester but some are intended to be covered in just one class session while others require more time. These topics focus on different aspects of the various linguistic dimensions of migration, mobility, and immobility. The final week of the semester is devoted to student presentations on an endangered language that they have "adopted" and that they research as an on-going assignment throughout the semester with regard to the topics we cover week by week.

TOPIC 1: basic linguistic concepts: language and social groups, language and individual identity; what counts as a language, language vs. dialect, counting languages

Census assignment: Language inventory of the US

TOPIC 2: Identifying endangered languages: numbers of speakers, who counts as a speaker, geographic distribution of speakers; endangerment criteria (UNESCO, Fishman's GIDS scale)

Criteria assignment: critically assess differences in UNESCO criteria for endangerment compared with other sets of criteria, e.g. Fishman's GIDS scale

TOPIC 3: Causes of contact between speakers of different languages: migration, colonization, conquest

Consequences of contact between speakers of different languages: bilingualism, borrowing, codeswitching, language collision, language coexistence, language endangerment/language dormancy;

Borrowing assignment: Tolkien and writing with native Germanic words versus writing with Latinate (etc.) vocabulary (showing motivation for and results of borrowing in language contact)

TOPIC 4: More consequences of language contact: Linguistic minority status; relation between minority status and migration -- minority immigrant communities, post-colonization indigenous minorities; immobility and minority status

TOPIC 5: Minorities in our midst: language diversity in Columbus: causes and effects.

Local Follow-up to Census assignment: Language inventory in Columbus

American Sign Language and the Deaf community

Deaf film assignment ("Sound and Fury: The Communication Wars of the Deaf")

TOPIC 6: More minorities in our midst: Indian languages in the USA (including languages of historical Ohio)

Global parallels – Aboriginal languages in Australia

Aborginal experience film ("Rabbit-proof fence") assignment

TOPIC 7: Historical perspectives: Language endangerment and language death through the ages

TOPIC 8: What is to be done: documentation/fieldwork and language revitalization/reclamation; showing of "Vanishing Voices" film (on devising literacy programs as part of revitalization efforts).

Fieldwork simulation assignments

TOPIC 9: Politics and ideology of language endangerment and linguistic minorities; economics of multilingualism – the EU experience

TOPIC 10: Another consequence of migration: Birth of new languages: pidgins and creoles; dialects and dialect split

TOPIC 11: What we learn from endangered languages about language in general, about the relation of speech communities to their environment, about ourselves

Adopt-a-language presentations

Final exam: Debates on controversial issues pertaining to the politics, attitudes, and ideology of language endangerment (e.g. the pros and cons of assimilation, of cultural and linguistic maintenance, of ties to the homeland (if appropriate), and the like.

| Goal 1: Comprehend the | Goal 2: Apply the relevant | Goal 3: Formulate a well- | Goal 4: Use multiple methods | Goal 5: Engage in original | Goal 6: Recognize how |
|----------------------------------|--------------------------------|------------------------------|--|--------------------------------|--------------------------------|
| fundamental analytical | analytical method(s) to | organized, well-supported | of linguistics inquiry to | research. | various uses and applications |
| components needed for | uncover the characteristics of | argument. | evaluate the relationship | | of linguistics apply to real |
| linguistic analysis for multiple | a particular linguistic | | between Lang and society. | | world phenomena and events. |
| linguistics sub disciplines. | situation or form. | | | | |
| Beginning | Beginning | Beginning | Beginning | Beginning | Beginning |
| 1100 Basics of Language | 1100 Basics of Language | 1100 Basics of Language | 1100 Basics of Language | 2000 Intro to Lang in the | 1100 Basics of Language |
| Learning | Learning | Learning | Learning | Humanities | Learning |
| 2000 Intro to Lang in the | 2000 Intro to Lang in the | 2000 Intro to Lang in the | 2000 Intro to Lang in the | 2051 Analyzing the Sounds of | 2000 Intro to Lang in the |
| Humanities | Humanities | Humanities | Humanities | Lang | Humanities |
| | | | | 3701 Lang & the Mind | |
| Intermediate | Intermediate | Intermediate | Intermediate | Intermediate | Intermediate |
| 3401 Words & Meanings | Ling2001 Lang & Formal | Lang, Sex, & Gender | 2367.01 Lang, Sex, & Gender | 3191 Internship in Linguistics | 2367.02 Lang & Advertising |
| 3502 ConLangs | Reasoning | 2367.02 Lang & Advertising | 3501 American Indigenous | 3601 Lang, Race, & Ethnicity | 3601 Lang, Race, & Ethnicity |
| 3901 Lang Evolution & Lang | Ling2051 Analyzing Sounds of | 3701 Lang & the Mind | Languages | in the US | in the US |
| Change | Lang | 3601 Lang, Race, & Ethnicity | 3601 Lang, Race, & Ethnicity | 3602 Lang & Social Identity | 3605 Lang & Social Justice |
| 3701 Lang & the Mind | 3191 Internship in Linguistics | in the US | in the US | 3603 Lang Across Cultures | Ling3801 Codes & Code- |
| 3802 Lang & Computers | 3502 ConLangs | 3602 Lang & Social Identity | 3602 Lang & Social Identity | 3604 Conducting | Breaking |
| | 3601 Lang, Race, & Ethnicity | 3603 Lang Across Cultures | 3603 Lang Across Cultures | Sociolinguistic Research | 3802 Lang & Computers |
| | in the US | 3604 Conducting | 3604 Conducting | 3605 Lang & Social Justice | 3191 Internship in Linguistics |
| | 3801 Codes & Code-Breaking | Sociolinguistic Research | Sociolinguistic Research | 3701 Lang & the Mind | 3902 Lang Endangerment & |
| | 3901 Lang Evolution & Lang | 3605 Lang & Social Justice | 3605 Lang & Social Justice | _ | Death |
| | Change | _ | 3901 Lang Evolution & Lang | | |
| | | | Change | | |
| | | | 3902 Lang Endangerment & | | |
| | | | Death The second | | |
| | | | | | |

CURRICULAR MAP for the UNDERGRADUATE MAJOR IN LINGUISTICS, BA PROGRAM (Updated 4-1-22)

| Advanced | Advanced | Advanced | Advanced | Advanced | Advanced |
|--------------------------|--------------------------|--------------------------|---------------------------------|-----------------------------|--------------------------|
| 4052 Linguistics and the | 4052 Linguistics and the | 4052 Linguistics and the | 4597.02 Lang & the Law | 4780 Undergrad Research | 4052 Linguistics and the |
| Scientific Method | Scientific Method | Scientific Method | 4601 Lang & the Black | Seminar | Scientific Method |
| 4100 Phonetics | 4100 Phonetics | 4100 Phonetics | Experience | 4998 Undergraduate Research | 4780 Undergrad Research |
| 4200 Syntax | 4200 Syntax | 4200 Syntax | 5601Introduction to | 4999 Undergraduate Thesis | Seminar |
| 4300 Phonology | 4300 Phonology | 4300 Phonology | Sociolinguistics | Research | 4597.02 Lang & the Law |
| 4350 Morphology | 4350 Morphology | 4350 Morphology | 5901 Introduction to Historical | 4550 Field Methods | |
| 4400 Lang & Meaning | 4400 Lang & Meaning | 4400 Lang & Meaning | Linguistics | | |
| | 4550 Field Methods | 4780 Undergrad Research | | | |
| | 4780 Research Seminar | Seminar | | | |
| | 4998 Research | 4998 Research | | | |
| | 4999 Thesis Research | 4999 Thesis Research | | | |