

<b>Fiscal Unit/Academic Org</b>	School of Earth Sciences - D0656
<b>Administering College/Academic Group</b>	Arts And Sciences
<b>Co-administering College/Academic Group</b>	Mathematical And Physical Sci
<b>Semester Conversion Designation</b>	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
<b>Current Program/Plan Name</b>	Evolution Studies Minor
<b>Proposed Program/Plan Name</b>	Evolutionary Studies Minor
<b>Program/Plan Code Abbreviation</b>	EVOSTDS-MN
<b>Current Degree Title</b>	

**Credit Hour Explanation**

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		20	13.3	13	0.3
Required credit hours offered by the unit	Minimum				
	Maximum				
Required credit hours offered outside of the unit	Minimum				
	Maximum				
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0

**Program Learning Goals**

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

**Program Learning Goals** •

**Assessment**

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

**Is this a degree program (undergraduate, graduate, or professional) or major proposal?** No

**Program Specializations/Sub-Plans**

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

**Pre-Major**

**Does this Program have a Pre-Major?** No

**Attachments**

- Evolutionary Studies Minor attachment 2 3 June 2011.doc: Evolutionary Studies Minor Proposal  
*(Program Proposal. Owner: Krissek, Lawrence Alan)*
- Evolutionary Studies minor cover letter.doc: NMS Division of Arts and Sciences cover letter  
*(Letter from the College to OAA. Owner: Andereck, Claude David)*

**Comments****Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Krissek, Lawrence Alan	05/22/2011 11:00 PM	Submitted for Approval
Approved	Krissek, Lawrence Alan	05/22/2011 11:01 PM	Unit Approval
Revision Requested	Andereck, Claude David	06/02/2011 12:34 PM	College Approval
Submitted	Krissek, Lawrence Alan	06/03/2011 11:39 AM	Submitted for Approval
Approved	Krissek, Lawrence Alan	06/03/2011 11:40 AM	Unit Approval
Approved	Andereck, Claude David	06/03/2011 02:08 PM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Meyers, Catherine Anne Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay	06/03/2011 02:08 PM	ASCCAO Approval

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June 3, 2011

Larry Krissek  
Chair, Arts and Sciences CCI

Dear Larry:

It is a pleasure to forward to you for consideration by the CCI and the Sciences Subcommittee the proposal for the Evolutionary Studies minor under semesters. This minor has only recently been implemented as an interdisciplinary minor for Arts and Sciences (now under the School of Earth Sciences), and therefore requires only a straightforward conversion to the semester version.

Beyond my own review of the documents, the proposal has been discussed by colleagues from other NMS units at a meeting on June 2, 2011. Feedback from these discussions has now been incorporated in the proposal.

If you have any questions, I would be happy to address them.

Sincerely,



David Andereck  
Professor of Physics  
Associate Dean of Natural and Mathematical Sciences, College of Arts and Sciences

## **LETTER FROM PROGRAM-OFFERING UNIT**

DATE: 20 May 2011

TO: NMS, ASC, and OAA Reviewers

FROM: W. Berry Lyons, Director, School of Earth Sciences

Lawrence Krissek, Associate Director for Administration, School of Earth Sciences

SUBJECT: Conversion of undergraduate interdisciplinary minor in Evolutionary Studies

The School of Earth Sciences (SES) has the following programs that will be converted from quarters to semesters:

- 1) B.A. in Geological Sciences (converted to B.A. in Earth Sciences)
- 2) B.S. in Geological Sciences (converted to B.S. in Earth Sciences, with 4 subprograms)
- 3) Minor in Geological Sciences (converted to Minor in Earth Sciences, with 8 subprograms)
  
- 4) M.S. in Geological Sciences (converted to M.S. in Earth Sciences)
- 5) Ph.D. in Geological Sciences (converted to Ph.D. in Earth Sciences)
  
- 6) M.S. in Geodetic Sciences
- 7) Ph.D. in Geodetic Sciences.

In addition, the School of Earth Sciences is now the administrative home for the Undergraduate Interdisciplinary Minor in Evolutionary Studies. The conversion of that Interdisciplinary Minor is the subject of this proposal.

The interdisciplinary minor in Evolutionary Studies was established in 2008/09, and was originally established as an ASC minor. Its administration was moved into SES this year, but the interdisciplinary nature of the minor was not changed by that administrative move.

The process for converting the Evolutionary Studies minor was coordinated by Prof. William Ausich, the lead faculty member for this minor within SES. Through informal discussions with other faculty members involved in the minor, a consensus was developed that no changes were needed in the structure or content of the minor. This conclusion was based on 2 points: 1) the recent development of this minor, and 2) the fact that most courses in the present minor were being converted on a 1-to-1 basis .

Because this is an interdisciplinary minor, its conversion was not the subject of a vote by the SES faculty. However, we fully support this as an appropriate conversion.

## **PROGRAM RATIONALE STATEMENT**

The undergraduate interdisciplinary minor in Evolutionary Studies was initiated in 2008-09.

The proposed conversion of the undergraduate interdisciplinary minor in Evolutionary Studies can be categorized as a conversion with minimal changes to program goals and/or curricular requirements.

In its quarter format, this minor required one foundational course, three elective courses (distributed among 3 of 4 categories), and either a research experience or one additional course. At least 20 quarter credit hours were required to complete this minor.

In its semester format, this minor still requires the one foundational course, the three elective courses (chosen from 3 of the same 4 categories as in the quarter format), and either a research experience or one additional course. At least 13 semester credit hours are required to complete this minor.

With a few exceptions (i.e., 2 quarter-version courses that are not being converted to semesters; 2 cases where a pair of quarter-version courses has been merged into a single semester course), the foundational course and the elective courses have converted on a 1-to-1 basis.

As a result, this conversion involves minimal changes, both at the level of individual courses and at the level of the overall requirements for the minor.

## **TRANSITION POLICY**

Students who began progress toward the interdisciplinary minor in Evolutionary Studies under quarters (defined as having completed at least one course within the minor) will not be penalized as we move to semesters, either in terms of progress towards their degree or their expected date of graduation. The foundational course, which is the only required course within this minor, has converted directly into a semester form, so students who span the transition will be able to apply either the quarter-version or the semester-version of the foundational course to their minor program. The same is true for the elective courses and the research experience; students who span the transition will meet those requirements for the Evolutionary Studies minor with any combination of approved quarter-version and semester-version courses that totals 3 courses plus the appropriate amount of research experience (3 quarter hours or 2 semester hours), or 4 courses and no research experience.

**LIST OF PROGRAM REQUIREMENTS, SEMESTER COURSES, AND EQUIVALENT  
QUARTER COURSES**

**And**

**QUARTER AND SEMESTER ADVISING SHEETS**

**1) UNDERGRADUATE INTERDISCIPLINARY MINOR IN EVOLUTIONARY STUDIES**

Quarter Course Number	Quarter Course Name	Quarter Course Credits	Semester Course Number	Semester Course Name	Semester Course Credits
<b>Complete a minimum of 20 quarter credit hours, including the following 3 requirements:</b>			<b>Complete a minimum of 13 semester credit hours, including the following 3 requirements:</b>		
<b>1) Complete the foundational course (Earth Sci/Anthro 315)</b>			<b>1) Complete the foundational course (Earth Sci/Anthro 3315)</b>		
Earth Sci/Anthro 315	Evolution: Contemporary and Interdisciplinary Perspectives	5	Earth Sci/Anthro 3315	Evolution: Contemporary and Interdisciplinary Perspectives	3
<b>2) Complete one course from 3 of the 4 categories listed below: (Note: some of these courses have prerequisites that are not included in this list)</b>			<b>2) Complete one course from 3 of the 4 categories listed below: (Note: some of these courses have prerequisites that are not included in this list)</b>		
<b>2a) Biological Perspectives</b>			<b>2a) Biological Perspectives</b>		
			Ent 3330	Social Insects	3
Ent H444	Honors Social Insects	5	Ent 4440H	Honors Social Insects	3
Ent 621	Insect Systematics and Diversity	5	Ent 5130	Field Insect Taxonomy	3
EEOB 370	Extinction	3		Not converted	
EEOB 400 or 400H	Evolution	5	EEOB 3310 or 3310H	Evolution	4

EEOB 405.01	Diversity and Systematics of Organisms (Lecture)	4	EEOB 3320	Organismal Diversity	3
EEOB 405.02	Diversity and Systematics of Organisms (Lab)	2			
EEOB 440* (only if Psych 601 not used)	Introductory Ethology	5	EEOB 3420 (only if Psych 5601 not used)	Behavioral Ecology	4
EEOB 470	Biology of Vertebrates	5	EEOB 4210	Focused Study on Evolution and Ecology – Vertebrates	4
EEOB 640	The Genetic Basis of Evolution	5	EEOB 6310	Molecular Evolution	3
EEOB 672	Taxonomy of Vascular Plants	5	EEOB 7310	Ecological Methods II	1-4
EEOB 700	Principles of Biogeography	5	EEOB 5470	Community and Ecosystems Ecology	3
EEOB/Mol Gen 711	Molecular Evolution	3	EEOB 6310	Molecular Evolution	3
MolGen 500 or 500H	General Genetics	5	MolGen 4500 or 4500E	General Genetics	3
MolGen 605	Molecular Genetics I	4	MolGen 4606	Molecular Genetics	4
MolGen 606	Molecular Genetics II	4			
MolGen 640	The Genetic Basis of Evolution	5	MolGen 5645	Genetic Basis of Evolution	2

<b>2b) Geological Perspectives</b>			<b>2b) Geological Perspectives</b>		
Earth Sci 501	Paleontology	5	Earth Sci 4501	Paleontology	4
Earth Sci 613	Micropaleontology	5	Earth Sci 5613	Micropaleontology	4
Earth Sci 614	Paleobiology	5	Earth Sci 5614	Paleobiology	4
Earth Sci 615	Paleoecology	5	Earth Sci 5615	Paleoecology	4
<b>2c) Anthropological Perspectives</b>			<b>2c) Anthropological Perspectives</b>		
Anthro 200 or 200H	Intro to Physical Anthropology	5	Anthro 2200 or 2200H	Intro to Physical Anthropology	4
Anthro 300	Human Origins	5	Anthro 3300	Human Origins	3
Anthro 301	Modern Human Physical Variation	5	Anthro 3301	Modern Human Physical Variation	3
Anthro 304	The Living Primates	5	Anthro 3304	The Living Primates	3
Anthro 409	Primate Evolution	5	Anthro 3409	Primate Evolution	3
Anthro 411	Human Ecological Adaptations	5	Anthro 3411	Human Ecological Adaptations	3
Anthro 500	Primate Sexuality	5	Anthro 3500	Primate Sexuality	3
Anthro H597.03	The Prehistory of Environment and Climate	5	Anthro 4597.03H	The Prehistory of Environment and Climate	3



Anthro 597.04	The Molecular Revolution: Heredity, Genome Mapping, and Genomania	5	Anthro 4597.04	The Molecular Revolution: Heredity, Genome Mapping, and Genomania	3
Anthro 602.03	Environmental Archaeology	5	Anthro 5605	Environmental Archaeology	3
Anthro 603.03	Dental Anthropology	5	Anthro 5609	Biological Anthropology of the Human Skeleton: Dental Anthropology	3
Anthro 603.04	Bioarchaeology	5	Anthro 5610	Biological Anthropology of the Human Skeleton: Bioarchaeology	3
Anthro 611	Evolutionary Perspectives on Human Behavior	5	Anthro 5615	Evolutionary Perspectives on Human Behavior	3
Anthro 640.01	Primate Behavior	5	Anthro 5641	Special Topics in Physical Anthropology: Primate Behavior	3
Anthro 640.06	Human Evolutionary Anatomy	5	Anthro 5646	Special Topics in Physical Anthropology: Human Evolutionary Anatomy	3
<b>2d) Cultural and Other Perspectives</b>			<b>2d) Cultural and Other Perspectives</b>		
EEOB 710	Creation and Evolution: Differing World Views	5	EEOB 5320	Creation and Evolution	3
Hist 366.01	Global Environmental History	5	Hist 2700	Global Environmental History	3
Ling 611	Introduction to Historical Linguistics	5	Ling 5901	Introduction to Historical Linguistics	3
Phil 455	Philosophy of Science	5	Phil 3650	Philosophy of Science	3
Phil 655	Advanced Philosophy of Science	5	Phil 5650	Advanced Philosophy of Science	3

Psych 601* (only if EEOB 440 not used)	Comparative Psychology	5	Psych 5601 (only if EEOB 3420 not used)	Comparative Psychology	3
Psych 623	Biological Clocks and Behavior	4	Psych 4623	Biological Clocks and Behavior	3
Psych 624	Psychology of Monkeys and Apes	5	Psych 3624	Primate Cognition	3
<b>3) Complete a minimum of 3 credit hours of research (XXXX 693 or 699) on an approved topic, or complete one additional course from the lists in Requirement 2.</b>			<b>3) Complete a minimum of 2 credit hours of research (XXXX 4998 or 4998H) on an approved topic, or complete one additional course (minimum 2 semester credit hours) from the lists in Requirement 2.</b>		
XXXX 693 or 699 or course	Variable	3	XXXX 4998 or 4998H	Variable	2

**ADVISING SHEETS:** The following 2 pages contain the semester and quarter advising sheets for the Evolutionary Studies minor.

STUDENT NAME: \_\_\_\_\_ ID \_\_\_\_\_

**EVOLUTIONARY STUDIES MINOR (SEMESTERS):**

**MINOR PROGRAM: Complete a minimum of 13 semester credits, including the following 3 requirements:**

<u>Semester (Au, Sp, Su)</u>	<u>Year</u>	<u>Credits</u>	<u>Grade</u>
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**1) Complete Earth Sci/Anthro 3315:**

EarthSci/Anthro 3315: \_\_\_\_\_ Year \_\_\_\_\_ Credits 3 Grade \_\_\_\_\_

**2) Complete one course in each of 3 of the following 4 categories, chosen from the courses listed for that category (Note: some of these courses have prerequisites that are not included in this list):**

a) Biological Perspectives: Ent 3330, Ent 4440H, Ent 5130, EEOB 3310 or 3310H, EEOB 3320, EEOB 3420 (only if Psych 5601 not used), EEOB 4210, EEOB 6310, EEOB 7310, EEOB 5470, MolGen 4500 or 4500E, MolGen 4606, MolGen 5645

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

b) Geological Perspectives: Earth Sci 4501, Earth Sci 5613, Earth Sci 5614, Earth Sci 5615

EarthSci \_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits 4 Grade \_\_\_\_\_

c) Anthropological Perspectives: Anthro 2200 or 2200H, Anthro 3300, Anthro 3301, Anthro 3304, Anthro 3409, Anthro 3411, Anthro 3500, Anthro 4597.03H, Anthro 4597.04, Anthro 5605, Anthro 5609, Anthro 5610, Anthro 5615, Anthro 5641, Anthro 5646

Anthro \_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

d) Cultural and Other Perspectives: EEOB 5320, Hist 2700, Ling 5901, Phil 3650, Phil 5650, Psych 5601 (only if EEOB 3420 not used), Psych 4623, Psych 3624

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

**3) Complete a minimum of 2 credit hours of research (XXXX 4998 or 4998H) on an approved topic, or complete one additional course (minimum 2 semester credit hours) from the lists in Requirement 2.**

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

**ADDITIONAL COURSE TO TOTAL AT LEAST 13 SEMESTER CREDITS (if needed):**

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

STUDENT NAME: \_\_\_\_\_ ID \_\_\_\_\_

**EVOLUTIONARY STUDIES MINOR (QUARTERS):**

**MINOR PROGRAM: Complete a minimum of 20 quarter credits, including the following 3 requirements:**

<u>Quarter (Au, Wi, Sp, Su)</u>	<u>Year</u>	<u>Credits</u>	<u>Grade</u>
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**1) Complete Earth Sci/Anthro 315:**

EarthSci/Anthro 315: \_\_\_\_\_ Year \_\_\_\_\_ Credits 5 Grade \_\_\_\_\_

**2) Complete one course in each of 3 of the following 4 categories, chosen from the courses listed for that category (Note: some of these courses have prerequisites that are not included in this list):**

a) Biological Perspectives: Ent 444H, Ent 621, EEOB 370, EEOB 400 or 400H, EEOB 405.01, EEOB 405.02, EEOB 440 (only if Psych 601 not used), EEOB 470, EEOB 640, EEOB 672, EEOB 700, EEOB 711, MolGen 500 or 500H, MolGen 605, MolGen 606, MolGen 640, MolGen 711

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

b) Geological Perspectives: Earth Sci 501, Earth Sci 613, Earth Sci 614, Earth Sci 615

EarthSci \_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits 5 Grade \_\_\_\_\_

c) Anthropological Perspectives: Anthro 200 or 200H, Anthro 300, Anthro 301, Anthro 304, Anthro 409, Anthro 411, Anthro 500, Anthro H597.03, Anthro 597.04, Anthro 602.03, Anthro 603.03, Anthro 603.04, Anthro 611, Anthro 640.01, Anthro 640.06

Anthro \_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

d) Cultural and Other Perspectives: EEOB 710, Hist 366.01, Ling 611, Phil 455, Phil 655, Psych 601 (only if EEOB 440 not used), Psych 623, Psych 624

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

**3) Complete a minimum of 3 credit hours of research (XXXX 693 or 699) on an approved topic, or complete one additional course (minimum 3 quarter credit hours) from the lists in Requirement 2.**

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_

**ADDITIONAL COURSE TO TOTAL AT LEAST 20 QUARTER CREDITS (if needed):**

\_\_\_\_\_ : \_\_\_\_\_ Year \_\_\_\_\_ Credits \_\_\_\_\_ Grade \_\_\_\_\_