

The completed and signed proposal should be submitted by the Dean's Office to: curriculumplanning@asu.edu.
 Before academic units can advertise undergraduate concentrations or include them in their offerings as described in the university catalogs, they must be recommended for approval by the Senate Curriculum and Academic Programs Committee and approved by the University Provost.

Definition and minimum requirements:

A concentration is a formalized selection of courses within a major.

- A concentration requires a minimum of 15 semester hours of which at least 9 semester hours must be upper division. Specialized concentrations (e.g., BIS Concentrations) may have additional or different requirements.
- A concentration is offered by a single unit and is intended exclusively for students pursuing a particular major. If a concentration consists of courses from more than one college the approval of each college Dean is required.

College/School/Institute: College of Letters and Sciences
Department/Division/School: Science and Mathematics Faculty
Proposing Faculty Group (if applicable):
If this is an official joint degree program? No, this is not a joint degree program

If "Yes" List all the additional college(s)/school(s)/institute(s) that will be involved in offering the degree program and providing the necessary resources. Note: All units offering this program must have collaborated in the proposal development and completed the appropriate unit and college/school approvals.

Existing Degree and Major under which this concentration will be established: Applied Biological Science
Proposed Concentration Name: Natural Resource Ecology
What is the first catalog year available for students to select on the undergraduate application for this this program? 2016-17
Delivery method: On-campus only (ground courses and/or iCour
Note: Once students elect a campus or On-line option, students will not be able to move back and forth between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online.

Campus/Locations: indicate all locations where this program will be offered.

Downtown Phoenix Polytechnic Tempe West Other: _____

Proposal Contact

Name: Chris A. Martin **Title:** Professor and Head
Phone number: (480)727-1247 **Email:** Chris.Martin@asu.edu

DEAN APPROVAL(S)

This proposal has been approved by all necessary unit and College/School levels of review. I recommend implementation of the proposed organizational change.

College/School/Division Dean name: Duane Roen

Signature [Signature] **Date:** 2-1/2016

College/School/Division Dean name:
 (if more than one college involved)

Signature _____ **Date:** / /20





Note: An electronic signature, an email from the dean or dean's designee, or a PDF of the signed signature page is acceptable.





2016 - 2017 Major Map





Applied Biological Sciences (Natural Resource Ecology), (Proposed)




XXTPFJQ

Hide Course List(s)/Track Group(s)

| Term 1 | 0 - 14 Credit Hours | Critical course signified by  | Hours | Minimum Grade | Notes |
|---|--|--|-------|---------------|--|
|  | ASU 101-UC: The ASU Experience | | 1 | | <ul style="list-style-type: none"> An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses ASU Mathematics Placement Test score determines placement in mathematics course ASU 101 or college-specific equivalent First-Year Seminar required of all freshman students |
|  | BIO 181: General Biology I (SQ) | | 4 | C | |
|  | MAT 210: Brief Calculus (MA) OR MAT 251: Calculus for Life Sciences (MA) | | 3 | C | |
| | ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition | | 3 | C | |
| | Social-Behavioral Sciences (SB) | | 3 | | |
| | Term hours subtotal: | | 14 | | |

| Term 2 | 15 - 28 Credit Hours | Critical course signified by  | Hours | Minimum Grade | Notes |
|---|--|--|-------|---------------|-------|
|  | BIO 182: General Biology II (SG) | | 4 | C | |
|  | CHM 113: General Chemistry I (SQ) | | 4 | C | |
| | ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition | | 3 | C | |
| | Humanities, Arts and Design (HU) | | 3 | | |
|  | Complete ENG 101 OR ENG 105 OR ENG 107 course(s). | | | | |
| | Term hours subtotal: | | 14 | | |

| Term 3 | 29 - 45 Credit Hours | Critical course signified by  | Hours | Minimum Grade | Notes |
|---|--|--|-------|---------------|---|
|  | ABS 274: Introduction to Wildlife Management OR ABS 225: Soils (SQ) AND ABS 226: Soils Laboratory (SQ) | | 4 | C | <ul style="list-style-type: none"> Students in the Wildlife Track should take ABS 274. Students in the Rangelands/Watershed Track should take ABS 225/226. |
|  | CHM 116: General Chemistry II (SQ) | | 4 | C | |
| | Social-Behavioral Sciences (SB) | | 3 | | |
| | Historical Awareness (H) | | 3 | | |
| | Complete Mathematics (MA) requirement. | | | | |
| | Elective | | 3 | | |
|  | Milestone: Complete BIO 181 and BIO 182 Courses | | | | |
| | Term hours subtotal: | | 17 | | |

| Term 4 | 46 - 61 Credit Hours | Critical course signified by  | Hours | Minimum Grade | Notes |
|---|---|--|-------|---------------|---|
|  | ABS 207: Applied Plant Taxonomy | | 3 | C | <ul style="list-style-type: none"> Students considering Graduate school or health professions should complete the Organic Chemistry Sequence of both CHM 233/237 and CHM 234/238 sequence. All other students will complete CHM 231/235. |
| | CHM 231: Elementary Organic Chemistry (SQ) AND CHM 235: Elementary Organic Chemistry Laboratory (SQ) | | 4 | C | |
| | Literacy and Critical Inquiry (L) | | 3 | | |
| | Global Awareness (G) | | 3 | | |
| | Cultural Diversity in the U.S. (C) | | 3 | | |
|  | Milestone: Complete CHM 116 | | | | |
| | Term hours subtotal: | | 16 | | |

| Term 5 | 62 - 77 Credit Hours | Necessary course signified by  | Hours | Minimum Grade | Notes |
|--------|----------------------|---|-------|---------------|-------|
|--------|----------------------|---|-------|---------------|-------|

| | | | |
|---|----|---|--|
| ★ ABS 370: Ecology | 3 | C | <ul style="list-style-type: none"> Students considering Graduate school or health professions should complete the PHY 111/113 and PHY 112/114 sequence. All other students will complete PHY 101. |
| ★ ABS 350: Applied Statistics (CS) | 3 | C | |
| ★ Upper Division Natural Resource Ecology Track | 3 | C | |
| PHY 101: Introduction to Physics (SQ) | 4 | C | |
| Humanities, Arts and Design (HU) | 3 | | |
| Term hours subtotal: | 16 | | |

| ★ Term 6 | 78 - 92 Credit Hours | Necessary course signified by | Hours | Minimum Grade | Notes |
|--|----------------------|-------------------------------|-------|---|-------|
| ★ | | | | | |
| ★ ABS 355: Ecology and Adaptations of Vertebrates OR ABS 430: Watershed Management | 3 | | C | <ul style="list-style-type: none"> Students in the Wildlife Track should take ABS 355. Students in the Rangelands/Watershed Track should take ABS 430. | |
| ★ BIO 360: Animal Physiology OR ABS 314: Applied Plant Physiology OR ABS 311: Molecular and Cellular Biology | 3 | | C | | |
| Upper Division Natural Resource Ecology Track | 3 | | C | | |
| Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB) | 3 | | | | |
| Natural Resource Ecology Track | 3 | | C | | |
| Term hours subtotal: | 15 | | | | |

| ★ Term 7 | 93 - 106 Credit Hours | Necessary course signified by | Hours | Minimum Grade | Notes |
|---|-----------------------|-------------------------------|-------|---------------|-------|
| ★ | | | | | |
| ★ BIO 340: General Genetics | 4 | | C | | |
| ★ ABS 490: Applied Biological Sciences Seminar | 1 | | C | | |
| ★ Upper Division Natural Resource Ecology Track | 3 | | C | | |
| Upper Division Elective | 6 | | | | |
| Term hours subtotal: | 14 | | | | |

| ★ Term 8 | 107 - 120 Credit Hours | Necessary course signified by | Hours | Minimum Grade | Notes |
|--|------------------------|-------------------------------|-------|---------------|-------|
| ★ | | | | | |
| ★ ABS 479: Ecosystem Management and Planning (L) | 3 | | C | | |
| Upper Division Elective | 7 | | | | |
| Elective | 4 | | | | |
| Term hours subtotal: | 14 | | | | |

Wildlife Track (12 Credits)

ABS 376: Wildlife Ecology

ABS 470: Life History of Mammals or
ABS 472: Applied Herpetology or
ABS 494: Applied OrnithologyABS 270: Sustainable Biological
Systems or ABS 475: Habitat
Management for Small Wildlife or
ABS 476: Big Game Habitat
Management or ABS 494:
International Wildlife Conservation or
ABS 485: GIS in Natural Resources
or ABS 384: Natural Resources
Measurements or ABS 378: Animal
NutritionRangeland and Watershed Track (12
Credits)ABS 494: Rangeland Ecosystem
ManagementABS 270: Sustainable Biological
Systems or ABS 368: Plant
Propagation or ABS 376: Wildlife
Ecology or ABS 380: Restoration and
Wildlife Plants or ABS 384: Natural
Resources Measurements or ABS
425: Soil Classification and
Management or ABS 434: Soil
Ecology or ABS 440: Ecological
Restoration Techniques or ABS 441:
Ecological Restoration Practicum or
ABS 474: Riparian Ecosystem
Management or ABS 476: Big Game
Habitat Management or ABS 481:
Riparian and Wetland Restoration or
ABS 485: GIS in Natural Resources
or ABS 486: Introduction to Remote
Sensing

General Track (12 Credits)

ABS 270: Sustainable Biological
Systems

ABS 312: Structure and Function

ABS 376: Wildlife Ecology

ABS 380: Restoration and Wildlife
Plants

ABS 434: Soil Ecology

ABS 378: Animal Nutrition

ABS 384: Natural Resources
MeasurementsABS 440: Ecological Restoration
TechniquesABS 441: Ecological Restoration
Practicum AND ABS 470: Life History
of Mammals

ABS 472: Applied Herpetology

ABS 485: GIS in Natural Resources

ABS 486: Introduction to Remote
Sensing

ABS 489: Undergraduate Research

ABS 494: Applied Ornithology

[Hide Course List\(s\)/Track Group\(s\)](#)

ABS 474: Riparian Ecosystem
Management

Notes:

- ◦ Students must complete a minimum of 12 credit hours of science courses offered by the School of Letters and Sciences.
Select from ABS, CHM, BIO, PHY, and MIC prefixes.
- Students must complete one of three Natural Resource Ecology Tracks.

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed on the major map are current for the 2016 - 2017 academic year.

1. OVERVIEW

- A.** Provide a brief description of the new concentration (including the specific focus of the new concentration, relationship to other concentrations in this degree program, etc).

The Applied Biological Science (ABS) B.S. concentration in natural ecology is designed to provide critical scientific and management skills to students in the area of natural resources. This program focuses on educating students to be scientist-practitioners with skills that will allow them to work in government agencies or environmental consulting firms or enter graduate programs in the area of natural resource ecology. The curriculum combines a strong foundation in biology, chemistry, physics and mathematics, with a solid grounding in the ecology of wildlife, water resources or rangelands. Other concentrations in the ABS degree emphasize other applied fields such as pre-health, preveterinary medicine, sustainable horticulture and secondary education

- B.** Explain the unit's need for the new concentration (e.g., market demand, research base, direction of the discipline, and interdisciplinary considerations). How will the new concentration complement the existing degree program?

A concentration in this general area has been part of the B.S. Applied Biological Sciences degree since 2004 when this degree program was established at the Polytechnic campus. The concentration (Wildlife and Ecological Restoration Concentration) was merged with the Pre-Vet Concentration in 2013 to form a Concentration in Applied Ecology and Pre-Veterinary Medicine. The new concentration name and major map are the result of an intense curriculum planning effort this past year by faculty in this area with the aim of defining and differentiating the concentration for future success in the recruitment and placement of undergraduate students.

The courses required for this concentration are shaped by requirements by state and federal governments for employment in this area. These requirements make it difficult to fit the course work into a general Applied Biological Science degree. This program has been very successful in placing students into these types of state and federal jobs.

The existence of the concentration would be very useful in the recruitment of students to the Polytechnic campus.

2. Support and Impact

- A.** Provide a supporting letter from the chair of the academic unit verifying that the proposed concentration has received faculty approval through appropriate governance procedures in the unit and that the unit has the resources to support the concentration as presented in the proposal, without impacting core course resources.

Please see attachment

- B.** *Identify other related ASU programs and outline how the new concentration will complement these existing ASU programs. (If applicable, statements of support from potentially-affected academic unit administrators need to be included with this proposal submission.)*

Please see attachment

- C.** Provide a supporting letter from each college/school dean from which individual courses, or the entire concentration, are taken.

3. Student Learning Outcomes and Assessment Methods

A. Knowledge, competencies, and skills

List the knowledge, competencies, and skills students should have when they graduate from the proposed degree program. You can find examples of program Learning Outcomes at (<https://uoeee.asu.edu/plan-outcomes>).

Demonstrate general competency in the foundational concepts of the biological sciences.

Describe ecological processes, including human impacts that influence ecosystem change, natural succession and the future sustainability of natural resources.

Ability to accurately collect and record field data, create, interpret, and present natural resource data in a variety of formats including graphs, tables, charts, reports, and PowerPoint presentations.

Develop an understanding of the environmental problems and ethical issues facing humans and the environment.

Describe how the use, management, and allocation of natural resources are affected by: laws, policies, economic factors (both market and non-market), and characteristics (including demographic, cultural, ethnic, and “values” differences) of private and public resource owners and users.

Communicate effectively, orally and in writing, with audiences of diverse backgrounds.

B. Assessment

Describe the plan and methods to assess whether students have achieved the knowledge, competencies and skills identified in the Learning Outcomes. You can find examples of assessment methods at (<https://uoeee.asu.edu/creating-plan>).

Students will be assessed for knowledge and skills in the following courses: BIO 181, ABS 370, ABS 479 (concentration capstone course)

4. Academic Curriculum and Requirements

A. Provide the admissions criteria for the proposed concentration. If they are identical to the admission criteria for the existing major and degree program under which this concentration will be established, please note that here.

Admission criteria identical to admission criteria for B.S. Degree in Applied Biological Sciences

B. Provide the curricular structure for this concentration. Be specific in listing required courses and specify the total minimum number of hours required for the concentration.

| Required Core Courses for the Degree/Major | | | | |
|--|--------|-------------------------|-----------------------|--------------|
| Prefix | Number | Title | Is this a new Course? | Credit Hours |
| ABS | 370 | Ecology | No | 3 |
| BIO | 181 | General Biology I | No | 4 |
| BIO | 182 | General Biology II | No | 4 |
| ABS | 350 | Applied Statistics | No | 3 |
| BIO | 340 | General Genetics | No | 4 |
| ABS | 490 | Applied Biology Seminar | No | 1 |

| | | | | |
|---------------------------------------|---------------|---|-------------------------------------|---------------------|
| BIO | 360 | Animal Physiology OR ABS 311 Molecular and Cellular Biology Or ABS 314 Applied Plant Physiology | No | 3 |
| <i>Section sub-total:</i> | | | | 22 |
| Required Concentration Courses | | | | |
| Prefix | Number | Title | <i>Is this a new Course?</i> | Credit Hours |
| ABS | 207 | Applied Plant Taxonomy | No | 3 |
| ABS | 274 | Introduction to Wildlife Management OR ABS 225/226 Soils and Soils Laboratory | No | 4 |
| ABS | 355 | Ecology and Adaptations of Vertebrates Or ABS 430 Watershed Management | No | 3 |
| ABS | 479 | Ecosystem Management and Planning | No | 3 |
| <i>Section sub-total:</i> | | | | 13 |

| Elective Concentration Courses | | | | |
|--|---------------|---------------------------------|------------------------------|---------------------|
| Prefix | Number | Title | Is this a new Course? | Credit Hours |
| ABS | 376 | Wildlife Ecology | No | 3 |
| ABS | 380 | Restoration and Wildlife Plants | No | 3 |
| ABS | 472 | Applied Herpetology | No | 3 |
| ABS | 474 | Riparian Ecosystems Management | No | 3 |
| ABS | 485 | GIS in Natural Resources | No | 3 |
| <i>Section sub-total:</i> | | | | 9 |
| Other Concentration Requirements | | | | Credit Hours |
| <i>E.g. – Capstone experience, internship, clinical requirements, field studies, foreign language skills as applicable</i> | | | | |
| CHM 13 General Chemistry I and CHM 116 General Chemistry II | | | | 8 |
| PHY 101 Introduction to Physics OR PHY111/113 General Physics with Lab and PHY112/114 General Physics with Lab | | | | 4-8 |
| CHM 231 Elementary Organic Chemistry OR CHM 233/237 General Organic Chemistry I with Lab and CHM 234/238 General Organic Chemistry II with Lab | | | | 4-8 |
| | | | | |
| <i>Section subtotal:</i> | | | | 16-24 |
| Total minimum credit hours required for concentration | | | | 60-68 |

C. A minimum residency requirement: How many hours of the concentration must be ASU credit? 30 credits

D. Provide a brief course description for each new course.

N/A

Note: All new required courses should be submitted in Curriculum Changemaker and ready for the University Provost's Office approval before this concentration is put on the CAPC agenda.

5. Administration and Resources

A. How will the proposed concentration be administered (including admissions, student advisement, retention, etc.)?

Existing advising and admission staff in the College of Letters and Sciences will be used for this concentration

B. What are enrollment projections for the next three years?

| | 1st Year | 2nd Year (Yr 1 continuing + new entering) | 3rd Year (Yr 1 & 2 continuing + new entering) |
|-----------------------------------|----------------------------|--|--|
| Number of Students (Headcount) | 40 | 55 | 70 |

C. What are the resource implications for the proposed concentration, including any projected budget needs? Will new books, library holdings, equipment, laboratory space and/or personnel be required now or in the future? If multiple units/programs will collaborate in offering this concentration please discuss the resource contribution of each participating program. Letters of support must be included from all academic units that will commit resources to this concentration.

There are no resource implications. All resources needed to support this concentration currently exist.

D. Please list the primary faculty participants regarding this proposed concentration. For interdisciplinary concentrations, please include the relevant names of faculty members from across the University.

| Name | Title | Area(s) of Specialization as they relate to proposed concentration |
|-----------------------------|---------------------|---|
| Heather Bateman | Associate Professor | Anatomy/Physiology of Vertebrates, Ornithology, Herpetology |
| Douglas Green | Associate Professor | Soils and Watershed Management |
| Marianne Moore | Assistant Professor | Mammology, Disease Ecology |
| Daniel Allen | Assistant Professor | Community Ecology, Riparian Systems |
| Fabio Suzart de Albuquerque | Assistant Professor | GIS, Remote Sensing, Natural Resource Conservation |
| Stanley Cunningham | Lecturer | Mammology, Wildlife Biology |
| Kelly Steele | Associate Professor | Plant Taxonomy |
| Eddie Alford | Lecturer | Management of Wildlands, Invasive Plants |

6. Additional Materials

A. Prepare and attach a Major Map. Please use the "proposed map" function to create a Major Map in [BAMM](#). This feature is explained in the training document available on Build a Major Map (BAMM) Training Resources.

B. *Complete and attach the Appendix document.*

C. Attach other information that will be useful to the review committees and the Office of the University Provost.

**APPENDIX
OPERATIONAL INFORMATION FOR UNDERGRADUATE CONCENTRATIONS**

(This information is used to populate the Degree Search/catalog website.
Please consider the student audience in creating your text.)

Proposed Concentration Name: Applied Biological Science (Natural Resource Ecology), BS

1. Program Description (150 words maximum)

This program focuses on educating students to be scientist-practitioners with skills that will allow them to work in government agencies or environmental consulting firms or enter graduate programs in the area of natural resource ecology. The curriculum combines a strong foundation in biology, chemistry, physics and mathematics, with a solid grounding in the ecology of wildlife, water resources or rangelands..

2. Contact and Support Information

Office Location (Building & Room): SANCA 201
Campus Telephone Number: 602/496-0658
Program email address: CLS@asu.edu
Program website address: https://cls.asu.edu/

3. Additional Program Description Information

- A. Additional program fee required for this program? Yes No
B. Does this program have a second language requirement? Yes No

4. Delivery/Campus Information

Delivery Method: On-campus only (ground courses and/or iCourses)

Note: Once students elect a campus or On-line option, students will not be able to move back and forth between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online.

Campus(es) and/or Locations Check all locations where the program will be offered.

- Downtown - Polytechnic - Tempe - West
 - Other (please specify)

Operational information:

Once students select a campus or On-line option, students will not be able to move back and forth between the on-campus the ASU Online option.

5. Career Opportunities & Concentration(s)

Provide a brief description of career opportunities available for this degree program with the proposed concentration.

Career opportunities for graduates from this concentration include employment in public agencies and private consulting firms, and includes possible positions such as:

- environmental consultant
- environmental research and education
- park manager
- wildland or range manager
- wildlife biologist or ecologist

6. Additional Admission Requirements

If applicable list any admission requirements (freshman and/or transfer) that are higher than and/or in addition to the university minimum undergraduate admission requirements.)

None

7. Keywords

List all keywords used to search for this program. Keywords should be specific to the proposed program.

Ecology, natural resources, applied biology, wildlife, ecological restoration, conservation

8. Advising Committee Code

List the existing advising committee code associated with this degree. UGLS06

Note: If a new advising committee needs to be created, please complete the following form:
Proposal to create an undergraduate advising committee

9. Western Undergraduate Exchange (WUE) Eligible:

Has a request been submitted to the University Provost by the Dean to consider this degree program as eligible for [WUE?](#)

No

Note: **No** action will be taken during the implementation process with regards to WUE until approval is received from the University Provost.

10. First Required Math Course List the first math course required in the major map. MAT 210 Brief Calculus or MAT 251 Calculus for Life Science**11. Math Intensity**

- List the highest math required on the major map. (This will not appear on Degree Search.) MAT 210 Brief Calculus or MAT 251 Calculus for Life Science
- What is the math intensity as indicated by the highest math required on the major map? Math intensity categorization can be found here: <https://catalog.asu.edu/mathintensity> Moderate

12. CIP codes

- a. Identify CIP codes that should be displayed on Degree Search. CIP codes can be found at: <http://www.onetonline.org/crosswalk/CIP/>.

19-1023.00 _____ 33-3031.00
 19-1031.02 _____
 19-1031.03 _____
 25-1043.00 _____
 19-1031.03 _____

- b. Are any specific career codes (SOC/ONET codes) to be omitted from the CIP codes selected above? (i.e. "Omit 25-10312.00 Engineering Teachers, Postsecondary from CIP code 14.0501 Bioengineering and Biomedical Engineering.")
- _____

13. Area(s) of Interest

- A. Select one (1) primary Area of Interest from the list below that applies to this program.

- | | |
|--|---|
| <input type="checkbox"/> <u>Architecture & Construction</u> | <input type="checkbox"/> Health & Wellness |
| <input type="checkbox"/> <u>Arts</u> | <input type="checkbox"/> Humanities |
| <input type="checkbox"/> Business | <input type="checkbox"/> <u>Interdisciplinary Studies</u> |
| <input type="checkbox"/> <u>Communications & Media</u> | <input type="checkbox"/> <u>Law & Justice</u> |
| <input type="checkbox"/> Computing & Mathematics | <input type="checkbox"/> <u>STEM</u> |
| <input type="checkbox"/> Education & Teaching | <input checked="" type="checkbox"/> <u>Science</u> |
| <input type="checkbox"/> <u>Engineering & Technology</u> | <input type="checkbox"/> <u>Social and Behavioral Sciences</u> |
| <input type="checkbox"/> Entrepreneurship | <input type="checkbox"/> Sustainability |
| <input type="checkbox"/> <u>Exploratory</u> | |

- B. Select any additional Areas of Interest that apply to this program from the list below.

- | | |
|--|---|
| <input type="checkbox"/> <u>Architecture & Construction</u> | <input type="checkbox"/> Health & Wellness |
| <input type="checkbox"/> <u>Arts</u> | <input type="checkbox"/> Humanities |
| <input type="checkbox"/> Business | <input type="checkbox"/> <u>Interdisciplinary Studies</u> |
| <input type="checkbox"/> <u>Communications & Media</u> | <input type="checkbox"/> <u>Law & Justice</u> |
| <input type="checkbox"/> Computing & Mathematics | <input checked="" type="checkbox"/> <u>STEM</u> |
| <input checked="" type="checkbox"/> Education & Teaching | <input type="checkbox"/> <u>Science</u> |
| <input type="checkbox"/> <u>Engineering & Technology</u> | <input type="checkbox"/> <u>Social and Behavioral Sciences</u> |
| <input type="checkbox"/> Entrepreneurship | <input checked="" type="checkbox"/> Sustainability |
| <input type="checkbox"/> <u>Exploratory</u> | |

| |
|--|
| The following fields are to be completed by the Office of the University Provost. |
| CIP Code: |
| Plan Code: |

Attachment

Letters of Support

Section 2A

From: David Wells

Sent: Saturday, January 30, 2016 3:32 PM

To: Holly Huffman; Jenifer Boshes; Carlos Santos; Pamela Stewart; Manuel Aviles-Santiago

Cc: Chris Martin; Duane Roen; Patricia Rosciano; Sandra Chavez-Lopez

Subject: RE: CLS Curriculum Committee: Disestablishing Applied Ecology/Pre-Vet--Est. Applied Biology two versions and Wildlife management certificate

Chris and Duane,

The Curriculum Committee approved all of the actions related to the following proposal:

1. Establishing Applied Biological Sciences Natural Resource Ecology

On behalf of the committee,

Dave

Section 2B

From: Ferran Garcia-Pichel

Sent: Thursday, February 11, 2016 4:03 PM

To: Duane Roen

Subject: Re: Splitting Concentration into Two

Ok by me

Sent from my iPhone

On Feb 11, 2016, at 3:48 PM, "Duane Roen" <Duane.Roen@asu.edu> wrote:

Ferran,

Do you object to the College of Letters and Sciences splitting the BS in Applied Biological Sciences concentration in Applied Ecology and Preveterinary Medicine (<https://cls.asu.edu/node/723>) into two separate concentrations?

As noted in the message that I sent in early January, the two concentrations would be as follows:

- Preveterinary Medicine
- Natural Resource Ecology

Thank you for considering this request.

Best,
Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Letters and Sciences
Dean, University College
Arizona State University
480-727-6513
duane.roen@asu.edu

College of Letters and Sciences Faculty Support

January 6, 2016

To: Duane Roen, Vice Provost, Polytechnic campus
Dean, College of Letters and Sciences
Dean, University College Arizona State University

From: Chris Martin, Professor and Faculty Head, Science and Mathematics Faculty College of Letters and Sciences

Arizona State University

I am writing to give my full support for the proposal to establish a Pre-Veterinary Medicine Concentration within the Applied Biological Sciences (ABS) BS degree program. This new concentration replaces the Applied Ecology and Pre-Veterinary Medicine concentration which will be disestablished once this concentration is implemented. Once implemented this new concentration will better serve a growing student population on the ASU Polytechnic campus who are majoring in ABS with specialty interests in veterinary science.

Sincerely,
Chris Martin

From: David Wells

Sent: Saturday, January 30, 2016 3:32 PM

To: Holly Huffman; Jenifer Boshes; Carlos Santos; Pamela Stewart; Manuel Aviles-Santiago

Cc: Chris Martin; Duane Roen; Patricia Rosciano; Sandra Chavez-Lopez

Subject: RE: CLS Curriculum Committee: Disestablishing Applied Ecology/Pre-Vet--Est. Applied Biology two versions and Wildlife management certificate

Chris and Duane,

The Curriculum Committee approved all of the actions related to the following proposals:

1. Establishing Applied Biological Sciences (Pre-Vet)

On behalf of the committee,
Dave

College of Liberal Arts and Sciences Support

From: Ferran Garcia-Pichel
Sent: Thursday, February 11, 2016 4:03 PM
To: Duane Roen
Subject: Re: Splitting Concentration into Two

Ok by me

Sent from my iPhone

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Ferran,

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As noted in the message that I sent in early January, the two concentrations would be as follows:

- Preveterinary Medicine
- Natural Resource Ecology

Thank you for considering this request.

Best,
Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Letters and Sciences
Dean, University College
Arizona State University
480-727-6513
duane.roen@asu.edu

New College Support

From: Todd Sandrin
Sent: Thursday, March 10, 2016 1:50 PM
To: Duane Roen
Subject: RE: BS in Applied Biological Sciences (Applied Ecology and Preveterinary Medicine), BS in Applied Biological Science (Preveterinary Medicine), BS in Applied Biological Science (Natural Resource Ecology)

No problem, Duane. New College foresees no negative impacts of these two new concentrations on our programs.

Best regards,

Todd

Todd R. Sandrin, Ph.D.
Professor – School of Mathematical and Natural Sciences
Associate Dean – New College | Director - NCUIRE
New College | Arizona State University
(602) 543-6934 | Todd.Sandrin@asu.edu | Lab - <http://sandrin-lab.asu.edu>

From: Duane Roen
Sent: Tuesday, March 08, 2016 2:45 PM
To: Todd Sandrin <Todd.Sandrin@asu.edu>
Subject: FW: BS in Applied Biological Sciences (Applied Ecology and Preveterinary Medicine), BS in Applied Biological Science (Preveterinary Medicine), BS in Applied Biological Science (Natural Resource Ecology)

Todd,

Sorry to bother you again about this. You sent an impact statement on January 11 for the BS in Applied Biological Science (Preveterinary Medicine) but not the BS in Applied Biological Science (Natural Resource Ecology).

As I noted then, we are splitting the BS in Applied Biological Sciences (Applied Ecology and Preveterinary Medicine) into two separate concentrations.

Could you reply to this message indicating that New College supports both new concentrations?

Thank you.

Best,

Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Letters and Sciences
Dean, University College
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