



## **ACADEMIC PROGRAM PROPOSAL FORM**

**DIRECTIONS:** Use this form when proposing a new major or primary field of study, new emphasis, or new degree program.

**DATE SUBMITTED:** November 20, 2015

*Date of AAC Approval:*  
December 2, 2015

**INSTITUTION:** Great Basin College

**REQUEST TYPE:**

- New Degree
- New Major or Primary Field of Study
- New Emphasis
- New Certificate of Achievement (AAC Approval)

*Date of Board Approval:*

only)

**DEGREE** (i.e. Bachelor of Science): **Bachelor of Arts**

**MAJOR** (i.e. Animal Science): **Natural Resources**

**EMPHASIS** (i.e. Equine Studies):

**CREDITS TO DEGREE:** 120.5

**PROPOSED SEMESTER OF IMPLEMENTATION:** Fall 2016

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### **Action requested:**

Great Basin College (GBC) requests approval from the NSHE Board of Regents for a Bachelor of Arts degree with a major in Natural Resources. This degree will replace the existing emphasis in Natural Resources within the Bachelor of Arts major in Integrative Studies. The contents of both programs are essentially identical.

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### **A. Brief description and purpose of proposed program**

This proposal is for a new BA degree with a major in Natural Resources to replace the existing BA major in Integrative Studies with a Natural Resources emphasis (BAIS – NR). This is intended to effect two changes. One is to more clearly communicate through the program name the nature of the degree both to prospective students and to potential employers. The other is to subtly change the program from an emphasis of a broad degree to one more in line with national standards for Natural Resources and Environmental Studies degrees. The new degree is designed to ladder on completed Associate of Science or Associate of Arts degrees with appropriate lower division prerequisites from any regionally accredited institution of higher education. Completion of appropriate AS or AA degrees will guarantee admission into the Bachelor's degree program with junior status.

The upper division of the proposed program provides a generalist degree in natural resource management. The courses are distributed among general biology, botany, zoology, environmental

law and regulation, geology, anthropology, and a selection of social sciences. The only fundamental change will be the replacement of two integrative studies courses with content and English literature courses.

Completion of this program will continue to provide graduates with opportunities for employment in a wide range of job types in land management, environmental consulting, biological technician positions, laboratory technicians, and so forth. The Bachelor of Arts degree will also function as a gateway into graduate school in resource-related disciplines.

There is no new cost to offer the proposed program. The program design builds on courses in existing GBC programs to create internal efficiencies. Required faculty, facilities, and equipment are in place. The program will run parallel to the BS Biological Science and the Biological Science endorsement in the BA in Secondary Education already successfully offered at GBC. There will continue to be an infusion of social sciences in common with the proposed BA in Social Science.

GBC will deliver the program throughout its rural service area. Laboratory sections will be delivered live in Elko, Pahrump, and Winnemucca. Bringing programs such as this to rural sites is important to recruiting students in rural areas.

For students currently enrolled in the BAIS – NR, transfer of previously taken course work to the new degree will be seamless. All courses of the proposed degree are already taught by qualified GBC faculty as part of its existing BAIS – NR, BS Biological Sciences, and BA in Secondary Education, Biological Sciences endorsement.

## **B. Statement of degree or program objectives**

Students graduating from the BA Natural Resources will have the knowledge and skills to:

- Acquire and interpret scholarly information and data to reach informed, reasoned and balanced conclusions.
- Synthesize information effectively in oral and written form.
- Develop and demonstrate professional skills.
- Comprehend and analyze how the study of biological and physical systems contributes to understanding the natural world; and
- Apply concepts and methods to an original professional study of the natural world.

## **C. Plan for assessment of degree or program objectives**

- The assessment of course-specific learning outcomes (objectives) will be mapped to program outcomes and evaluated accordingly.
- The Department will track the academic and workplace achievements of program graduates.
- Intermittent surveys of enrolled students and program alumni will provide information and feedback used for program and course development.
- The program's curriculum and goals will be reviewed annually by faculty members based on studies of best practices and current trends in BA programs in Nevada and nationwide.

## **D. Plan for assessment of student learning outcomes and the use of this data for program improvement**

Individual courses will evaluate student mastery of program-aligned learning outcomes in methods appropriate for course content and goals. These measures will inform course, curriculum and faculty development efforts and will also support program assessment efforts. Methods of evaluation may include:

- Examinations and tests
- Laboratory exercises, reports, and notebooks.
- Term and mid-term papers
- In-person presentations
- Discussion board assignments

Student course evaluations will be completed in each course, and the data generated will inform course improvements, pedagogical training and program development. Surveys of current students and alumni will provide similar data for course and program development.

## **E. Contribution and relationship of program objectives to**

### **i. NSHE Master Plan**

The proposed program aligns clearly with the last *NSHE Master Plan* produced in 2007 and as listed below. GBC specifically identified this program in its *2015 – 2019 Planning Report: Institutional Academic, Research, and Student Services Plans*, approved by the Board of Regents on December 5, 2014.

This program contributes to the following specific goals of the *NSHE Master Plan* (2007):

- Student-Focused System: The higher education system in Nevada will create a welcoming, respectful and friendly environment where all students have the opportunity to participate and succeed at every level of higher education.
  - Increase the percentage of Nevada’s general population who participate in some form of higher education, whether through coursework, workforce training, certificate programs, lifelong learning, or degree programs.
  - Strive to continually increase the percentage of students that express a high level of satisfaction with teaching, advising, and overall educational experiences at NSHE institutions.
    - ❖ Nationally, rural populations are less likely to attend college than urban populations. Factors include a lower value on education, remote location, social adjustment in moving to larger population centers, and family and employment circumstances making them place-bound. GBC is uniquely situated to address the circumstances and needs of this population of students in Nevada. Addressing the needs of these students is GBC’s mission. GBC has contact and support services for these students that cannot be addressed as effectively at other institutions of higher education.
- Reputation for Excellence: Nevada’s institutions of higher education will increase their national, regional, and statewide reputation based on targeted, outstanding, innovative programs and other accomplishments.
  - Continue to develop and maintain programs, centers, and institutes that elicit national, regional, or statewide recognition for excellence.

- Contribute to Nevada’s quality of life and the efficiency and productivity of the state’s enterprises through public service rendered by Nevada’s faculty, staff, and students.
  - ❖ GBC has received commendations from the Northwest Commission on Colleges and Universities for its dedication and excellent service to rural Nevada. GBC has a highly innovative, technologically balanced approach to rural education that links the service area through combinations of online, interactive video, and live interactions with students. GBC is uniquely qualified to deliver programs in this setting. Providing access to this program is one step in developing healthcare professionals in rural Nevada who are more likely to remain in rural Nevada where they are critically needed.
- Quality Education: Nevada’s system of higher education will provide consistently excellent learning experiences for its students through instruction, research, and service.
  - Develop and implement an assessment plan and effective measures of student learning outcomes at each institution and for each academic program. Assessment plans for educational programs will be congruent with the differentiated missions of the institutions. Each plan will be required to define student learning outcomes, assess student performance on those outcomes, and use results to improve teaching and learning.
  - Develop effective measures of institutional performance, collect data on the institutional indicators, and demonstrate that the results are used in the planning and evaluation process. These indicators are to include the regular evaluation of programs and justification for program continuation.
  - Increase the number of rich learning experiences available to students through creative performance, scholarly and research collaboration with faculty, and through community service learning.
    - ❖ GBC closely links its programs and students through its published program and supporting course outcomes, assessed regularly. The availability of a Bachelor of Arts in Natural Resources degree program to the residents of rural Nevada will enrich their opportunities to further their education in this discipline.
- A Prosperous Economy: Through instruction, research, and service, higher education in Nevada will be an essential element in developing and sustaining a strong, dynamic, knowledge-based economy for Nevada.
  - Develop and increase responsive educational programs that focus on state needs and critical shortages in identified fields.
  - Increase the proportion of workers and the number of graduates in high-skill fields who come from Nevada’s higher education institutions rather than from out of state.
  - Increase institutional collaborations with the private sector and target significant research resources to achieve specific economic development objectives.
  - Increase and focus workforce development to meet community needs in those sectors with the highest potential for growth.
    - ❖ As a STEM discipline, graduates with the Natural Resources degree may serve within many rural workforce fields. Students from rural communities are more likely to return to their home community, where graduates of Natural Resource programs may find employment in a wide range of environment professions, ranging from industrial companies to governmental agencies to private consulting firms involved in the

management of rural western landscapes. Graduates will qualify to apply to graduate school with a wide range of biological interests and related professional schools.

- Building Quality of Life: Higher education in Nevada will be instrumental in advancing society's objectives and enriching the lives of Nevada's citizens.
  - Increase public service and cultural opportunities that position higher education institutions as intellectual, cultural, and artistic centers and as the "marketplace for ideas."
  - Ensure that all students have an opportunity to experience some form of internship, cooperative education, or community service in their educational programs.
    - ❖ This program is a basic science degree of wide application. The degree may be applied to professional positions within environmental studies, resource management, and others. All of these fields have need for people willing to work in rural locations.
  
- Opportunity and Accessible Education for All: Nevada's system of higher education will increase the overall participation and success of Nevadans enrolling at all levels of higher education and in all ethnic groups, and will address the unique educational needs of a highly diverse and non-traditional population.
  - Raise the percentage of Nevada's high school graduates who continue into postsecondary education within the NSHE.
  - Increase programs and courses designed to meet the needs of working adults.
  - Expand the use of shared, new, and existing facilities on weekdays, evenings, weekends, and summers for the most cost-effective delivery of education.
    - ❖ GBC increases accessibility to students throughout a service area larger than most states. The isolation of smaller communities outside of major metropolitan areas makes them not readily supported by the current programs of Nevada's Universities and State College. GBC already has in place existing infrastructure to provide this program to its service area. Of particular importance is the efficiency of providing this degree program; all but three of the courses in the proposed program are already delivered by GBC as part of its existing BS in Biology, and Biological Science endorsement in the BA in Secondary Education program. The program continues and strengthens the existing BA in Integrative Studies, Resource Management emphasis. This program will add enrollment to existing courses that are already being delivered, meaning essentially no new cost to provide this opportunity. In addition, should students with appropriate Associate's degrees from the other Nevada community colleges wish to transfer into the GBC program, the lower division general education requirements completed with these degrees will be accepted as complete for the GBC degree.

In addition to the NSHE Master Plan, this program supports the NSHE plan, *The State & the System: NSHE Plan for Nevada's Colleges and Universities (2010)*:

*NSHE will pursue such partnerships at every level within institutions where appropriate to build student opportunity, internships, and employment, synergies for quality operations, and potential cost savings. Likewise, better pathways for technology transfer to assist business will be explored.*

This program will provide abundant opportunities for students who do not currently have a pathway into a Bachelor of Arts degree in Natural Resources in rural Nevada. The program availability already established in the curriculum in the Bachelor of Arts Integrative Studies, Natural Resource emphasis, Bachelor of Science Biology, and Secondary Education program provides cost-savings, providing this program with essentially no new cost. AS and AA degrees courses from other community colleges, with appropriate prerequisite courses, will be accepted for students wishing to pursue this degree with GBC.

The program aligns with the proposals in the E-Learning report (*E-Learning and Higher Education's Iron Triangle: Opportunity, Affordability, and Student Success*, 2/11/2013). Specific recommendations addressed by this program include the following:

- Recommendation 3: Invest in Distance Education and Related Policy Review. For GBC, “distance education” connotes more than the basic use of the Internet for the delivery of online classes. The program will use online ability to enhance most classes, but will also use a large degree of delivery through the interactive video (IAV) format. GBC is highly invested in using this effective method of synchronous delivery that enables GBC biology instructors from campuses in Elko, Pahrump, and Winnemucca to reciprocally offer course content. Labs must generally be provided live, and facilities are available at these three sites for delivering this important component of the courses of this program. In the future, “media site” technology will be developed to addresses some of the courses through dual synchronous (through IAV) and asynchronous (recorded and available later) formats. Current GBC infrastructure, policy, and scheduling are in place for this program to utilize.
- Recommendation 6: Invest in a Shared Student Learning Portal and Student e-Portfolio. All four Nevada community colleges share the Canvas LMS, and Canvas provides options for creating Student Portfolios. This allows an early opportunity for implementing this recommendation.
- Recommendation 11: Invest in Shared Marketing. The largest opportunity for shared marketing with this program is to promote the opportunity for program graduates to enter graduate school at the Nevada universities. The program is focused on providing a rigorous curriculum that provides a solid foundation for entering graduate school in a range of biologically-oriented options.

**ii. Institutional mission**

**The Great Basin College Mission Statement:**

*Great Basin College enriches people's lives by providing student-centered, post-secondary education to rural Nevada. Educational, cultural, and related economic needs of the multicounty service area are met through programs of university transfer, applied science and technology, business and industry partnerships, developmental education, community service, and student support services in conjunction with certificates and associate and select baccalaureate degrees.*

This program reflects the following components of the GBC Mission Statement:

- The program is specifically oriented towards students in rural Nevada and their success.
- Live student support services are available at the GBC main campus in Elko, at its four centers (Battle Mountain, Ely, Pahrump, and Winnemucca), and at several of its smaller sites.

- Courses in this select baccalaureate program will be widely available throughout rural Nevada using distance technologies where possible.
- The program addresses the educational, cultural, and economic needs of rural Nevada.
  - There are currently no programs for a BA degree in Natural Resources available to students outside of the metropolitan areas of Nevada.
  - The degree provides not only the opportunity for an education within the discipline of Natural Resources, Environmental Studies, and Biology, but this also retains a strong base for cultural awareness enhancement.
  - Opportunities exist for graduates in the Natural Sciences in rural Nevada and beyond. Many jobs require a basic knowledge of science together with problem solving skills. The program is highly invested in scientific knowledge, research and critical analysis required in many jobs. Potential jobs exist in private business, consulting firms, and resource management agencies. The program will advance a productive workforce that knows how to learn and to work effectively with others.
- The program will collaborate with local and state-wide businesses to identify needs for students who understand science and its application. These activities are continuously assessed to adapt to the rapidly changing needs of employers and to assist in the recruitment and economic development efforts of the state.

### **iii. Campus strategic plan and/or academic master plan**

This program was specifically identified within the 2015-2019 update of its Academic Master Plan, approved by the NSHE Board of Regents on December 5, 2014. This is within the NSHE 2015 – 2019 Planning Report: *Institutional Academic, Research, and Student Service Plans*. This plan is a subset of the approved GBC Strategic Plan.

The GBC Strategic Plan was approved by the NSHE Board of Regents at its June, 2014 meeting. The approved plan included the GBC vision statement:

*While maintaining the strength of its community college mission, Great Basin College will remain an economically sustainable institution through growth, by increasing enrollment, expanding its service area, offering more laddered Bachelor's degrees and becoming nationally known for its innovative distance delivery systems, all leading it to be recognized as an indispensable and evolving provider of post-secondary education in rural Nevada.*

The BA in Natural Resources is designed as a laddered Bachelor's degree coupled with a completed AS or AA degree with appropriate prerequisite courses. The program expectation is strategic in using existing, regularly taught courses from an existing emphasis to obtain more enrollment by having a program with a name that more accurately reflects the program purpose. Distance technology will enhance the ability to distribute the program throughout rural Nevada.

### **iv. Department and college plan**

In keeping with the GBC Science Department plan, the BA in Natural Resources will target students with existing AS or AA degrees and supplement the existing degrees in the BA in Secondary Education with a Biological Science endorsement and the BS in Biological Sciences. Coursework will be offered using existing distance education approaches to augment live instruction in order to serve rural, place-bound and non-traditional students. The ability to deliver to the more remote population centers of Nevada is a key aspect of the

department's plan to offer educational opportunities to students lacking access to a Bachelor's degree education in the sciences.

**v. Other programs in the institution**

The BA in Natural Resources combines the synergies of all GBC Bachelor' programs. It clearly builds upon the existing BAIS – NR, reinforces the BS in Biological Sciences, and will help stabilize enrollment in the Secondary Education science emphasis. The program will have a strong foundation in existing GBC science offerings that provide efficiencies that strengthen the entire department. Existing lower division courses provide an introduction to the sciences at the local level that peaks students' interest. Many of the lower division courses currently support health science programs or the general education program. This strengthening and realignment of the Natural Resources program will add enrollment to existing courses with no additional instructional effort or cost. The overall effect will be a strengthening and increase in the efficiency of existing science resources.

**vi. Other related programs in the System**

Bachelor's degrees in various nuances of the environmental sciences are currently offered at UNR, UNLV and NSC. However, these programs are not accessible to rural, place-bound and non-traditional students in the GBC service area. The proposed program will not compete significantly with the existing programs because of isolation of the student populations to be served by this program. The GBC program is also somewhat different in offering a program with an orientation toward understanding and implementing legal and practical aspects of environmental regulation and compliance. Since this proposed program has already existed as an emphasis for many years without negatively affecting other programs in Nevada, this proposed version is also not expected to have any significant effect in drawing enrollment away from existing programs at other institutions. Upon finishing a GBC program as proposed here, there may be a slightly increased pool of candidates prepared for and with interest in graduate school at the universities.

**vii Articulation issues (within the institution)**

There are no adverse articulation issues within the college. With proper advising and correct selection of lower division courses, Associate's degrees will articulate directly to this BA in Natural Resources program with no loss of credit. This is also true of Associate's degrees from the other Nevada community colleges, though this is not the target audience. Students currently studying in the BAIS – NR will have the option of finishing their current degree or moving to the BA in Natural Resources at their preference. All courses are aligned with NSHE Common Course Numbering.

**F. Evaluation of need for the program**

**i. Intrinsic academic value of program within the discipline**

Natural Resources is an integrative field requiring a broad understanding of all sciences (physical, chemical, earth, as well as biology) and certain aspects of the social sciences (particularly anthropology). This makes a Natural Resources degree an effective platform for developing the ability to synthesize complicated and multi-disciplinary ideas required of many existing jobs in natural resources, environmental work, and laboratory settings. This



unspecialized degree will also act as a pathway to graduate school in a broad range of disciplines. It will allow students to readily change career paths in the sciences. This could occur at graduation, with transfer to a different discipline, or before graduation since the first two years of the degree contain introductory courses and a mathematics background that can be used in some STEM disciplines. Degrees providing reasoning and analytical skills are readily applied outside the discipline. For example, historically graduates with science backgrounds have been highly ranked for entry to law school.

**ii. Evidence of existing or projected local, state, regional, national and/or international need for program**

Students at GBC already recognize the utility of a Bachelor's degree in Natural Resources. In the current semester (Fall 2015) there are 27 active students in the BAIS – NR, representing 16.5 FTE. This is quite in line with the past two years of enrollments, where the semester average has been 28 active students. These enrollment figures have been stable. With the change to a stand-alone major, students and employers will be more likely to recognize this curriculum as a solid degree in Natural Resources, as opposed to the current emphasis of a degree. It is anticipated that GBC will see an enrollment increase of approximately 10% with the change to the BA in Natural Resources.

**iii. If this or a similar program already exists within the System, what is the justification for this addition**

Currently, UNR, UNLV and NSC all offer a Bachelor's degrees in Environmental Science roughly analogous to the proposed BA in Natural Resources. The required classes for these programs are typically offered using a traditional live lecture/lab format within the two major metropolitan areas of Nevada. The proposed program would provide the opportunity for rural, place-bound students to obtain a BA in Natural Resources by offering classes, including live labs, closer to where the students reside. This program will use GBC's experience delivering courses to widely dispersed rural Nevada populations in a cost-effective manner, oriented toward a population familiar with publicly managed lands.

**iv. Evidence of employment opportunities for graduates (state and national)**

This program is designed to lead to one of several potential career paths. These could include resource management careers in the public sector, biology and environmental sciences in the private sector, and pre-professional careers where graduate school follows completion of the program.

Current data from the Bureau of Labor Statistics show an important trend. Graduates with Bachelor degrees in environmental science and protection earn significantly more than graduates equipped only with an Associate degree (\$63,600 vs. \$42,200). Both educational levels in environmental science show better than average growth potential through 2022 (19% and 15% for Bachelor's and Associate's degrees, respectively). In contrast, some subspecialties such as rangeland and forest conservation show slow or negative growth with lower annual salaries. Clearly, a Bachelor's degree in a broad natural resource/environmental discipline is a worthwhile investment.

A large portion of Nevada is public land that is managed by agencies of the federal government. In order for this land to be utilized for activities such as mining, ranching, and various forms of recreation, resource managers will be needed for operations to interface with managing agencies. This often requires specific federal designations and qualifications

that this degree would provide. The best option for creating natural resource specialists for these positions is to educate place-bound students familiar with the public land setting so that they can get this type of employment. Students in this degree program will qualify for employment that specifically requires a Bachelor in Natural Resources or a related science (such as federal government GS 0401-series General Natural Resources & Biological Sciences category jobs). It was identified as a part of a program review of that there is a student clientele and employment need specifically in the Natural Resources that is served by this degree.

**v. Student clientele to be served (Explain how the student clientele is identified)**

The current population identified for this program is those participating in the existing BAIS - NR. As noted in section F. ii., there are currently 27 active students in this program. Additionally, GBC identifies students for this program through several forms of recruitment and marketing as currently deployed to support the other Bachelor's degrees offered at GBC.

**G. Detailed curriculum proposal**

**i. Representative course of study by year (options, courses to be used with/without modification; new courses to be developed)**

*Representative course of study by year (options, courses to be used with/without modification; new courses to be developed)*

<b>Bachelor of Arts Natural Resources</b>	
<b>Suggested Course Sequence for AS</b>	
<b>FALL—1st Semester</b>	<b>Credits</b>
INT 100	0.5
BIOL 190	4
ENG 101	3
FINE ARTS*	3
PSC 101 or HIST 101 and HIST 102	3
ELECTIVE	3
MATH (If needed)*	
<b>TOTAL</b>	<b>16.5</b>
<b>SPRING—2nd Semester</b>	<b>Credits</b>
ANTH 101 or 202	3
BIOL 191	4
ENG 102	3
HUMANITIES*	3
ENV 100	3
MATH (If needed)*	
<b>TOTAL</b>	<b>16</b>

<b>FALL—3rd Semester</b>	<b>Credits</b>
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CHEM 121	4
MATH 126 or higher	3
GEOL 101	4
NRES 222	3
NRES 223	1
<b>TOTAL</b>	<b>15</b>

<b>SPRING—4th Semester</b>	<b>Credits</b>
COM 101, THTR 102, or THTR 221	3
STAT 152	3
CHEM 122	4
GIS 109	3
<b>TOTAL</b>	<b>13</b>

\*Select with advisor

**Total credits for the Associate of Science: 60.5**

**ii. Program entrance requirements**

To be admitted to the program, students will need to possess an AA or AS degree of 60 credits from a regionally accredited institution. Both transfer students and existing GBC AA and AS students will be advised that they must complete lower division prerequisite courses before they can enroll in many upper division courses and complete the BA in Natural Resources.

**iii. Program completion requirements (credit hours, grade point average; subject matter distribution, preprogram requirements)**

To graduate, students are required to complete 120 credits and have a cumulative GPA of 2.0 for all upper division courses applied to the degree. This includes courses taken at GBC and those transferred from other institutions.

**Note: some of the following course requirements will be taken as part of an Associate's degree**

**Bachelor of Arts in Natural Resources Curriculum**

1. Lower Division General Education for Associate of Science	
A. General Education Requirements	Credits
INT 100	0.5
ENG 101 & ENG 102	6
U.S. and Nevada Constitutions requirement:	
PSC 101 or HIST 101 & HIST 102	3 - 6
Oral Communications: COM 101, THTR 221, or THTR 102	3
MATH 126 or higher	3
BIOL 190	4
ENV 100	3
GEOL 101	4
ANTH 101 or ANTH 202	3
Humanities	3

	Fine Arts	3
	Technology: GIS 109	3
B.	Lower Division Natural Resource Requirements:	Credits
	BIOL 191	4
	CHEM121	4
	CHEM 122	4
	NRES 222 and NRES 223	4
	STAT 152	3
C.	Potential Lower Division Electives:	Credits
	AGSC 100	3
	NRES 150	3
	Total Lower Division Credits:	60.5
2.	Upper-Division Program Requirements	Credits
	ECON 311	3
	Literature, (choose 1):	3
	ENG 433A, ENG 449A, ENG 449B, ENG 451A, ENG 451B, or ENG 497A	3
	GIS 320	3
	BIOL 300	4
	BIOL 341	3
	BIOL 394 (to be created)	2
	ENV 422	3
	GEOL 334	4
	Capstone Outside of Major:	
	INT 349	3
	Capstone Inside of Major, (choose 1):	3
	INT 496	
	BIOL 415	
3.	Upper-Division Program Individual Choices.	
	Choose one from each category	Credits
	Biology	3
	BIOL 305	
	BIOL 447	
	NRES 310	
	Botany	3
	BIOL 331	
	BIOL 410	
	Zoology	4
	BIOL 320	
	BIOL 434	
	Anthropology	3
	ANTH 400A	
	ANTH 400B	
	Social Science	3
	ECON 307	
	HIST 441	
	PSC 403C	

4. Upper-Division Electives 10 Credits

Recommended Electives:

BIOL 400 INT 400 INT 301

Select additional courses from the following prefixes:

ANTH	BCH	BIOL	CADD
CHEM	CIT	COM	CRJ
CS	ECON	ENG (200 or higher)	
ENV	GEOG	GEOL	GIS 205
HIST	INT	MATH	NRES
PHYS	PSC	PSY	SOC
SUR	SW		

**Total Upper Division Credits: 60**  
**Total Credits for BA NR: 120.5**

**iv. Accreditation consideration (organization (if any) which accredits program, requirements for accreditation, plan for attaining accreditation - include costs and time frame)**

Once the program is reviewed and approved by the NSHE Board of Regents, it will be submitted to the Northwest Commission on Colleges and Universities for approval. This is the only accreditation required.

**v. Evidence of approval by appropriate committees of the institution**

The program was approved by the GBC Curriculum and Articulation Committee and then by the GBC Faculty Senate. Minutes are attached as Attachment B.

**H. Readiness to begin program**

**i. Faculty strengths (specializations, teaching, research, and creative accomplishments)**

There are five biology faculty in the GBC Science Department. Three are located in Elko, one in Pahrump, and one in Winnemucca. They hold a combination of Master and Doctoral Degrees with specializations in: Botany/Plant Genetics, Herpetology/Ecology, Biochemistry and Biophysics, Molecular Physiology, and Wildlife Biology. Collectively they possess more than 80 years of teaching experience teaching at community colleges and universities. The faculty possess many publications in their scientific specialties and several continue to take part in research and publish as GBC faculty members even though this is not part of their workload. Additional faculty support for this degree comes from the GBC Social Science Department, including specialists in Anthropology, Environmental History, and Political Science. Expertise of local experts in resource management employed with Federal and State agencies, as well as consulting firms are regularly used as guest lecturers and adjunct faculty.

**ii. Contribution of new program to department’s existing programs (both graduate and undergraduate) and contribution to existing programs throughout the college or university**

The program will operate co-efficiently with the BS in Biology, the potential BA in Social Science, and pre-existing BA in Secondary Education, Biological Science endorsement offered at GBC, making use of existing courses, facilities and faculty. The BA in Natural Resources will also make use of Integrative Studies courses already offered for other baccalaureate degrees at the college, increasing enrollments in such courses, which are offered by faculty from various programs and departments.

**iii. Completed prior planning for the development of the program (recent hires, plans for future hires, securing of space, curricular changes, and reallocation of faculty lines)**

The GBC Science Department currently includes five full-time Biology faculty, and all but two courses required for the degree program are currently staffed and on the long-term schedule, requiring no new staffing allocations. Operation of this program will require no additional space allocations and all infrastructure exists and is already funded. The GBC Social Science department will continue to supply strong support for this degree as they have in the past supported the BAIS – NR.

**iv. Recommendations from prior program review and/or accreditation review teams**

Quotations from the 2012 BAIS – NR program review by John S. Campbell Ph.D, Professor of Biology, Northwest College, Powell, Wyoming:

“Great Basin College maintains a strong and well organized program of study that results in a Bachelor of Arts in Integrative Studies: Natural Resources Emphasis. The well-rounded course offerings are supported by a highly educated and strongly committed faculty who are well received by students in the program. The program faces challenges presented by the mandate to serve a population dispersed over an extremely large geographic area. A very progressive distance learning system via interactive video appears to be a strong, well received approach to serving the dispersed student enrollment. Funding for the BAIS program appears adequate, but not excessive. A strong job market in the region presents competition in recruiting and the result is low enrollment in the program. This low enrollment magnifies problems with course offerings at remote campuses.”

“A major issue I see associated with the Bachelor of Arts in Integrated Studies: Natural Resources is simply its identity. The program as currently configured is really much broader than a Natural Resource program and the title does not convey to potential students what the program really offers. By retaining the title of Natural Resources, the college may be failing to recruit many students who would be well served by the program. Students wanting to enroll at Great Basin College with other visions and goals in the sciences may be discouraged by the focus implied by the program title.”

**v. Organizational arrangements that must be made within the institution to accommodate the program**

As a new Bachelor degree program, the BA in Natural Resources will require a program supervisor/administrator appointed from current Science faculty.

**I. Resource Analysis**

**i. Proposed source of funds (enrollment-generated state funds, reallocation of existing funds, grants, other state funds)**

As the program makes use of currently offered courses (with the addition of three courses) and currently employed faculty, the program requires no additional funds at inception. Future growth, dependent on enrollment, will be funded through enrollment-generated state funds in proportion to course enrollment increases.

- ii. **Each new program approved must be reviewed for adequate full-time equivalent (FTE) to support the program in the fifth year. Indicate if enrollments represent 1) students formally admitted to the program, 2) declared majors in the program, or 3) course enrollments in the program.**

Students will be identified as those who have declared the program as their major.

- a. **(1) Full-time equivalent (FTE) enrollment in the Fall semester of the first, third, and fifth year.**

1st Fall semester   5  

3rd Fall semester  10 

5th Fall semester  15 

- (2) Explain the methodology/assumptions used in determining projected FTE figures.**

Projections of FTE are based on current headcount enrollment discussed in section F. ii. above. FTE is estimated to grow at 10% annually. In the current semester (Fall 2015) there are 27 active students in the BAIS – NR, representing 16.5 FTE. This is quite in line with the past two years of enrollments, where the semester average has been 28 active students. The numbers given here are anticipated growth over the current enrollment in the program.

- b. **(1) Unduplicated headcount in the Fall semester of the first, third, and fifth year.**

1st Fall semester   9  

3rd Fall semester  17 

5th Fall semester  25 

- (2) Explain the methodology/assumptions used in determining projected headcount figures.**

Projections of headcount are based on current enrollment discussed in section F. ii. above. Headcount is estimated to grow at 10% annually. Headcount is about 1.7 times the FTE in section a. above.

- iii. **Budget Projections – Complete and attach the Five-Year Budget Projection Table.**

See Attachment C

## **J. Facilities and equipment required**

- i. Existing facilities: type of space required, number of assignable square feet, space utilization assumptions, special requirements, modifications, effect on present programs**

All facilities required for this program currently exist with no modifications needed.

- ii. Additional facilities required: number of assignable square feet, description of space required, special requirements, time sequence assumed for securing required space**

Implementation will require no additional space.

- iii. Existing and additional equipment required**

Upon approval, the program will make use of existing equipment with no predicted additional equipment needs in the immediate future. The naturally follows since it is a replacement of an existing emphasis program.

## **K. Student services required – Plans to provide student services, including advisement, to accommodate the program, including its implications for services to the rest of the student body**

Current faculty and the appointed program supervisor will provide advisement for students in the program as well as to A.A. and A.S. students with intentions to enter the program upon their completion of the required entrance degree. The program supervisor will conduct degree application review. Recruitment efforts will be shared between the Recruitment Department, the BA in Natural Resources Program Supervisor and the full-time Science faculty.

## **L. Consultant Reports – If a consultant was hired to assist in the development of the program, please complete subsections A through C. A copy of the consultant's final report must be on record at the requesting institution.**

As per NSHE Procedures and Guidelines in Chapter 6, Section 10, a feasibility evaluation of the program proposal for a community college Bachelor's degree was completed by someone outside of the institution who is a member of the field being proposed. This is not a consultant report in the strict sense, but is included in this section of the proposal as the most relevant location for it. The evaluation accompanies this proposal as Attachment D.

- i. Names, qualifications and affiliations of consultant(s) used**

Peter Bradley, Nevada Department of Wildlife, Non – Game Specialist, retired.

- ii. Consultant's summary comments and recommendations**

Conclusions: None yet!

- iii. Summary of proposer's response to consultants**

No response yet!



## M. Articulation Agreements

**i      Articulation agreements were successfully completed with the following NSHE institutions. (Attach copies of agreements)**

None have been completed pending approval of the program. However, agreements are on file for the existing BAIS-NR that this program will replace with little change.

**ii.     Articulation agreements have not yet been established with the following NSHE institutions. (Indicate status)**

Articulation agreements at College of Southern Nevada, Truckee Meadows Community College, and Western Nevada College have not yet been completed for this revised program because the program has not yet been approved. However, approval of this program assures that graduates from Associate's degree programs with the appropriate lower division courses will be automatically accepted and articulated directly into the GBC program. Once the program is approved, the formality of making articulation agreements will be completed. Transfer from other NSHE community colleges is not the target of this program, but agreements will be created and honored.

**iii.    Articulation agreements are not applicable for the following institutions. (Indicate reasons)**

Articulation agreements are not required with UNLV, UNR, or NSC because GBC does not expect to receive students transferring from those institutions. Individual courses will transfer between the institutions since NSHE Common Course Numbering practices are observed.

## N. Summary Statement

This proposal to replace the existing BAIS – NR emphasis with a stand-alone BA in Natural Resources at GBC represents a serious effort to better fulfill GBC's mission of providing educational opportunities to rural, place-bound, and non-traditional students. This also supports our dedication to increasing efficiencies in our course offerings and degree programs. The success of the BAIS – NR has proven that the science infrastructure that GBC already has in place, such as labs at rural GBC centers in Ely, Winnemucca, and Pahrump, as well as GBC's experiences in distance education, are adequate to the task. This change will afford currently enrolled GBC students an opportunity to pursue a degree to better compete for employment in public and private sector resource management and environmental studies jobs related to biology as well as prepare them for entrance into graduate school.

The synergistic addition of students from this program to courses in the existing BA in Secondary Education, Biological Science endorsement and BS in Biology as well as the proposed BA in Social Science, will ensure its continued self-sufficiency and contribution to both NSHE and GBC. Additionally, as the program will function co-efficiently with already existing programs within the institution, the GBC Science Department stands ready to begin the program with no additional expenditure of funds or staff. The facilities required to begin this degree program, as well as the trained faculty and staff members necessary to ensure its success, are currently in place and ready to begin work.

# ATTACHMENT A

## Curriculum and four-year plan for Associate of Science (Pattern of Study) and Bachelor of Arts in Natural Resources

### Bachelor of Arts in Natural Resources Curriculum

1.	Lower Division General Education for Associate of Science		Credits
	A. General Education Requirements		
	INT 100		0.5
	ENG 101 & ENG 102		6
	U.S. and Nevada Constitutions requirement:		
	PSC 101 or HIST 101 & HIST 102		3 - 6
	Oral Communications: COM 101, THTR 221, or THTR 102		3
	MATH 126 or higher		3
	BIOL 190		4
	ENV 100		3
	GEOL 101		4
	ANTH 101 or ANTH 202		3
	Humanities		3
	Fine Arts		3
	Technology: GIS 109		3
	Section B Subtotal:		38.5
	B. Lower Division Natural Resource Requirements:		Credits
	BIOL 191		4
	CHEM 121		4
	CHEM 122		4
	NRES 222 and NRES 223		4
	STAT 152		3
	Section D Subtotal:		19
	C. Potential Lower Division Electives:		Credits
	AGSC 100 or NRES 150		3
	Total Lower Division Credits:		60.5
2.	Upper-Division Program Requirements		Credits
	ECON 311		3
	Literature, (choose 1):		3
	ENG 433A, ENG 449A, ENG 449B, ENG 451A,		
	ENG 451B, or ENG 497A		
	GIS 320		3
	BIOL 300		4
	BIOL 341		3
	BIOL 394 (to be developed)		2

ENV 422	3		
GEOL 334	4		
Capstone Outside of Major:			
INT 349	3		
Capstone Inside of Major, (choose 1):	3		
INT 496			
BIOL 415			
Upper-Division Program Requirements Subtotal:	31		
3. Upper-Division Program Individual Choices.			
Choose one from each category	Credits		
Biology	3		
BIOL 305			
BIOL 447			
NRES 310			
Botany	3		
BIOL 331			
BIOL 410			
Zoology	4		
BIOL 320			
BIOL 434			
Anthropology	3		
ANTH 400A			
ANTH 400B			
Social Science	3		
ECON 307			
HIST 441			
PSC 403C			
Program Individual Choices Subtotal	16		
4. Upper-Division Electives	13 Credits		
Recommended Electives:			
BIOL 400	INT 400	INT 301	
Select additional courses from the following prefixes:			
ANTH	BCH	BIOL	CADD
CHEM	CIT	COM	CRJ
CS	ECON	ENG (200 or higher)	
ENV	GEOG	GEOL	GIS 205
HIST	INT	MATH	NRES
PHYS	PSC	PSY	SOC
SUR	SW		
Total Upper Division Credits:		60	
Total Credits for BA NR:		120.5	

**Changes from BAIS – NR:**

Courses dropped: INT 369.

Courses added: English Literature and BIOL 394.

Courses moved to new category: BIOL 300 now required; INT 301 and INT 400 now electives.

New in major capstone choice: INT 496 or BIOL 415.

**Bachelor of Arts Natural Resources  
Suggested Course Sequence for AS**

<b>FALL—1st Semester</b>	<b>Credits</b>
INT 100	0.5
BIOL 190	4
ENG 101	3
FINE ARTS*	3
PSC 101 or HIST 101 and HIST 102	3
ELECTIVE	3
MATH (If needed)*	
<b>TOTAL</b>	<b>16.5</b>

<b>SPRING—2nd Semester</b>	<b>Credits</b>
ANTH 101 or 202	3
BIOL 191	4
ENG 102	3
HUMANITIES*	3
ENV 100	3
MATH (If needed)*	
<b>TOTAL</b>	<b>16</b>

<b>FALL—3rd Semester</b>	<b>Credits</b>
CHEM 121	4
MATH 126 or higher	3
GEOL 101	4
NRES 222	3
NRES 223	1
<b>TOTAL</b>	<b>15</b>

<b>SPRING—4th Semester</b>	<b>Credits</b>
COM 101, THTR 102, or THTR 221	3
STAT 152	3
CHEM 122	4
GIS 109	3
<b>TOTAL</b>	<b>13</b>

\*Select with advisor

**Bachelor of Arts Natural Resources  
Suggested Course Sequence for Completion of BA**

<b>FALL—5th Semester</b>	<b>Credits</b>
BIOL 300	4
BIOL 305, BIOL 447, or NRES 310	3 - 4
Upper-Division Electives*	3
GIS 320	3
INT 349	3
<b>TOTAL</b>	<b>16</b>

<b>SPRING—6th Semester</b>	<b>Credits</b>
BIOL 331 or BIOL 410	3
BIOL 341	3
BIOL 394	2
GEOL 334	4
English Literature	3
<b>TOTAL</b>	<b>15</b>

**If Internship is chosen as an elective:**

<b>Summer or Fall of 4th year:</b>	<b>Credits</b>
INT 400*	3-6
<b>TOTAL</b>	<b>3-6</b>

<b>FALL—7th Semester</b>	<b>Credits</b>
BIOL 320 or BIOL 434	4
ANTH 400A, or ANTH 400B	3
ECON 307, HIST 441, or PSC 403C	3
Upper-Division Electives*	6
<b>TOTAL</b>	<b>16</b>

<b>SPRING—8th Semester</b>	<b>Credits</b>
ENV 422	3
ECON 311	3
INT 496 or BIOL 415	3
Upper-Division Electives*	3 - 4
<b>TOTAL</b>	<b>12</b>

\*Select with advisor

# ATTACHMENT B

## APPROVAL FROM CURRICULUM AND ARTICULATION COMMITTEE AND FACULTY SENATE

### FACULTY SENATE

Friday, November 20, 2015

Battle Mountain – BM 1 Elko – GTA 130; Ely – GBC 118;

Pahrump – PVC 124; Winnemucca – GBC 115

### Meeting Minutes

#### I. ROLL CALL

**Voting Representatives:** John Rice, Stephen Theriault, Michael Whitehead, Norm Whitaker, Jill Chambliss, Byron Calkins, Cherie Jacques, Staci Warnert, Mardell Wilkins, Xunming Du, Pete Bagley (P), Wendy Charlebois, Jodi Gerrits, Janice King, Brandis Senecal, Ping Wang, Thomas Reagan, Tim Beasley

**Absent Voting Members:** David Freistroffer (P)

**Other Members Present:** Tina Nelson, Cathy Fulkerson, Josh Webster, George Kleebe, Brandy Nielsen, Glen Tenney, David Douglas, Heather Steel, Cindy Hyslop, Dianna Byers, Tami Potter, Justine Stout, John Newman, Lynne Owens, Sherri Sanchez, Nick Haertle, Stephanie Davis, Jonathan Foster, Scott Gavorsky, Pat Anderson

**Visitors:** Dr. Mike McFarlane

#### f. Curriculum & Articulation – Written Report/**Action**

The Curriculum and Articulation Committee met on Oct. 12, 2015. The committee approved and request a Faculty Senate vote on the following:

Course	Description
1. SUR 255	Addition of a new course to the catalog.
2. EMS 220 B designation	Addition of a new course to the catalog.
3. B.A. in Social Science Proposal	Requesting approval of a proposal for a new major to offered at GBC.
4. B.A. in Natural Resources	Requesting approval of a proposal for a new major to offered at GBC.

Motion made by Jan King, seconded by Byron Calkins. 0 Abstention. Motion carried.

# **ATTACHMENT C**

## **BUDGET PROJECTION**

**New Academic Program Proposal  
Five-Year Program Cost Estimate  
(Revised December 2015)**

Institution: GBC Program: BA, Natural Resources Semester of Implementation: Fall 2016

**DIRECTIONS:** Complete the Student FTE and following cost estimates for the first, third, and fifth for the proposed new program in Section A. Any "new" costs in year one must be noted by source in Section B.

STUDENT FTE: Year 1: 5 Year 3: 10 Year 5: 15

Section A.	Year 1/Start-up				Year 3		Year 5	
	Existing <sup>1</sup>	New <sup>2</sup>	Total	FTE	Total	FTE	Total	FTE
<b>PERSONNEL</b>								
Faculty ( <i>salaries/benefits</i> ) <sup>3</sup>	101,400	0	101,400	1.0	103,815	1.0	108,645	1.0
Graduate Assistants	0	0	0	0.0	0	0.0	0	0.0
Support Staff	0	0	0	0.0	0	0.0	0	0.0
<b>Personnel Total</b>	\$101,400	\$0	\$101,400	1.0	\$103,815	1.0	\$108,645	1.0
<b>OTHER EXPENSES</b>								
Library Materials ( <i>printed</i> )	1,000	0	1,000		1,000		1,000	
Library Materials ( <i>electronic</i> )	10,000	0	10,000		10,000		10,000	
Supplies/Operating Expenses	2,500	0	2,500		2,500		2,500	
Equipment	0	0	0		0		0	
Other Expenses	0	0	0		0		0	
<b>Other Expenses Total</b>	\$13,500	\$0	\$13,500		\$13,500		\$13,500	
<b>TOTAL</b>	\$114,900	\$0	\$114,900		\$117,315		\$122,145	

**Section B.**

↓	
Amount	%

**EXPLANATION OF "NEW" SOURCES<sup>2</sup>**

Tuition/Registration Fees	0	
Federal Grants/Contracts	0	
State Grants/Contracts	0	
Private Grants/Contracts	0	
Private Gifts	0	
Other ( <i>please specify</i> )	0	
<b>TOTAL</b>	\$0	0.0%

<sup>1</sup>Resources allocated from existing programs to the proposed program in Year 1 should be noted in the "Existing" column.

<sup>2</sup>Any "New" resource utilized to fund a new program must include the source to be provided in the "Explanation of New Sources" section. Total "New" sources for the first year must equal the total under "Explanation of New Sources."

<sup>3</sup>Budget estimates for faculty salaries and benefits must include estimated merit and COLA increases in Year 3 and Year 5.

**EXPLANATION** (*Please provide any additional information pertinent to the budget projection, including for example, explain for any new funding sources that are not guaranteed receipt by the institutions how the program will make-up for the potential loss in expected new funding.*): **All funding for the program currently exists except for the potential for future merit and COLA increases. The budget provides for the salary equivalent of one full-time instructor and some part-time instruction. Library resources currently exist, as all but one lab course in the program is now taught as part of the existing BA in Intergrative Studies (Natural Resources) and Secondary Education endorsement in Biological Sciences. No new sources of funding will be required.**



# **ATTACHMENT D**

## **PROGRAM FEASIBILITY EVALUATION**

**Peter Bradley**

**Feasibility Evaluation of a Program Proposal**  
**“Bachelor of Arts in Natural Resources”**  
**for implementation in Fall 2016**  
**Great Basin College**  
**Elko, Nevada**

19 November 2015

## **Summary**

Great Basin College (GBC) has proposed a revision of an existing Bachelor of Arts Program entitled “Bachelor of Arts Major in Integrative Studies with an emphasis in Natural Resources” (BAIS-NR) to simply a “Bachelor of Arts in Natural Resources” (BANR) for implementation in the Fall of 2016.

There are several good reasons to agree with the feasibility and wisdom of this program change. I can detect no reason to challenge the proposal's efficacy.

## **Primary Benefits of BANR**

- 1) First and foremost, this change would eliminate any confusion on the part of either the student body, post graduate institution and/or prospective employer as to the definition of the college program, the goals of the institution and the preparedness of its graduating class.
- 2) 'Integrative Studies' is one of those amorphous terms that confuses most people and helps no one. A major in 'Natural Resources' on the other hand will represent a concrete commitment by the institution to a student's understanding of the natural world and improvement of his/her understanding of the scientific bedrock of their educational foundation.
- 3) Proposed changes in curricula will fall in line with strict adherents governed by the “*National Standards for Natural Resources and Environmental Studies*” committee: (a) This new degree is designed to ladder on completed AS and AA degrees with appropriate prerequisites from all accredited institutions of higher learning. Junior status would be guaranteed upon completion of these Associate degrees; (b) Core courses are distributed among biological, environmental, geological and social sciences.
- 4) With greater understanding of GBC goals by other institutions of higher learning and prospective employers, students who complete this program will see opportunities for employment and post graduate studies increase.
- 5) There are currently no program opportunities for BA degrees in Natural Resources available to students beyond the two major metropolitan areas (Las Vegas-Henderson and Reno-Sparks-Carson City) of Nevada. This program would, through GBC's existing physical facilities and remote interactive capabilities, make available the BANR Degree to at least eight rural Nevada communities for the first time (Elko, Spring Creek, Wells, Ely, McGill, Battle Mountain, Winnemucca and Pahrump).
- 6) The current student population identified for this program is those participating in the existing BAIS-NR program. There are currently 27 active students enrolled in this program. Current faculty

have predicted a 10% increase in student enrollment per year if the new proposal were to be implemented. This would result in a 137% increase in student enrollment in BANR over a ten year period (Year 2=30, 3=33, 4=36, 5=40, 6=44, 7=48, 8=53, 9=58, Year 10 = 64 students).

## **BANR Adherence and Contribution To Existing Educational Plans**

- 1) ***NSHE Master Plan*** (2007), ***2015-2019 Planning Report: Institutional Academic, Research and Student Service Plans*** (5 December 2014) and ***NSHE Plan for Colleges and Universities***(2010): (a) provides new educational opportunity to rural Nevadans; (b) provides award-winning educational experience, known for its excellence in instruction, research and student services; ( c ) provides a STEM workforce that will be more likely to return to their local community; (d) increases accessibility to students throughout a service area larger than most states and an area with a relatively larger than average percentage of Native American and Latino students.
- 2) ***E-Learning Report Plan*** (11 February 2013): (a) program will, through their capability to broadcast remotely, provide Natural Resource education to students over 10,000 square miles of Nevada's outback.
- 3) ***GBC Campus Strategic Plan / Academic Master Plan*** (4 December 2014): (a) Increase enrollment with new Degree name that more accurately reflects program purpose and objectives.
- 4) ***Department and College Plan*** (2014): (a) The ability to deliver to more remote population centers of Nevada is a key benefit of the proposed BANR Degree Program.

## **Ancillary Benefits of BANR**

- 1) The science background offered by BANR will make students excellent candidates for a broad range of disciplines in Graduate School.
- 2) Because of its remote nature, this program will not compete directly with similar programs in Nevada's metropolitan areas.
- 3) The program, as designed, will self-evaluate and thus improve over time.
- 4) Students graduating from BANR will leave with the tools to acquire, synthesize and implement the tenets of scientific method.
- 5) Students in the current BAIS-NR program will have the choice to finish in their chosen academic pursuit or, with no penalty, move seamlessly into the new BANR program.
- 6) The new program will add no additional costs to the GBC budget.
- 7) Graduates in BANR would be excellent candidates to work in local communities in public land agencies as public land managers.

## **School Preparedness for BANR**

- 1) GBC staff members collectively have over 80 years of teaching experience in the biological and natural resource fields.
- 2) No additional facilities will be required.
- 3) No additional funding will be required.

## **Some Thoughts / Suggestions**

- 1) With all due respect, I do have some long-felt prejudice against using the term 'Natural Resources', without the user having at least a modicum of respect for what the term embodies. The terms 'Conservation Biology' and 'Environmental Studies' at least try to get at the core of our responsibility to adhere to a land ethic, one that errs on the side of preservation/conservation of the resource, rather than simply the side that 'gives' or 'compromises' it all away. The latter two names may be better candidates for your new program, rather than the name currently proposed.
- 2) This may be my ignorance showing. I've always understood good natural resource management to be a perfect mix of art and science. However, I'm not convinced that a "BA" vs a "BS" designation will be in the best interest of those prospective graduates of this new program when they apply to graduate school or seek employment in the field. I do know the National Park Service, for example, has always been viewed as the 'odd man out' as a public land Natural Resource employer for its high percentage of Liberal Arts majors (80%) as opposed to individuals with a Bachelor of Science degree in their employ (Building Quality of Life section – Page 5).
- 3) If predictions of a 10% increase per year in BANR student enrollment come to fruition, there will ultimately (over a ten year period) surface greater needs for expanding infrastructure within GBC's Department of Biology, something which has not been addressed in the current proposal.

## **Conclusion**

The proposed change of an existing degree program at Great Basin College in Elko, Nevada from a Bachelor of Arts in Integrative Studies with an emphasis on Natural Resources to a Bachelor of Arts in Natural Resources is both well-conceived and well-supported by existing school infrastructure, curricula and staffing levels.

My recommendation is to pursue this line of reasoning and to build a seamless transition for a change to a Bachelor of Arts Degree in Natural Resources for the Fall of 2016.

Respectfully,

Peter Vince Bradley MS  
Wildlife Biologist  
Retired, State of Nevada  
837 Eastlake Dr  
Spring Creek, Nevada 89815