



AUBURN UNIVERSITY

OFFICE OF THE PROVOST
AND VICE PRESIDENT FOR
ACADEMIC AFFAIRS

December 1, 2017

Ms. Margaret Pearson

Alabama Commission on Higher Education (ACHE)
P.O. Box 302000
Montgomery, AL 36130-2000

Ms. Pearson:

Please find attached, for ACHE review, documentation pertaining to Auburn University's proposal of a new undergraduate degree program in Sustainable Biomaterials and Packaging, from the School of Forestry and Wildlife Sciences. The university plans to begin offering the program in Fall 2018.

In Summer 2017, Auburn University's curriculum committee approved the proposal. The program has received the necessary approvals from both the Office of the Provost and the President. A copy of the proposal is attached, and we are requesting that it be included on the Commission's March 2018 meeting agenda.

Feel free to contact my office if you have any questions or concerns about this request. Thank you for your cooperation and assistance in this matter.

Sincerely,

Timothy Boosinger
Provost and Vice President for Academic Affairs

Attachments: BS in Sustainable Biomaterials and Packaging (FORM)

cc: Dr. Constance Relihan
Dr. Drew Clark
Dr. Janaki Alavalapati

Alabama Commission on Higher Education

PROPOSAL FOR A NEW DEGREE PROGRAM – NEW APPLICATION TOOL

Please check one: Baccalaureate Program Graduate Program

A. General Information

1. Institution: **Auburn University**

2. Institutional Contact: **Timothy R. Boosinger, DVM, Ph.D.**
Title: **Provost and Vice President for Academic Affairs**
Telephone: **334.844.5771**
E-mail: provost@auburn.edu

3. Program Identification
Field of Study/ Program Title: **Sustainable Biomaterials and Packaging**
Degree: **Bachelor of Science**
CIP Code: **03.0599 Forestry, Other**

4. Date of Proposal Submission: December 2017

5. Proposed Program Implementation Date: **Fall 2018**

6. Program Administration:
Name of College/School: **School of Forestry & Wildlife Sciences**
Name of Dean: **Dr. Janaki Alavalapati**
Name of Department: **NA**
Name of Chair: **NA**

B. Program Purpose and Description

1. In no more than one paragraph describe the purpose of the proposed program. Please also include a brief statement regarding how the program's purpose is related to the University's mission and goals.

The proposed undergraduate curriculum will satisfy several interests. First, incoming freshman will be excited to have a 21st century program that not only works to solve environmental problems, but pays a healthy salary in the process. Second, employers from an emerging biomaterial-based industry are having tremendous problems finding students with the right skill sets. The Forest Products Development Center (FPDC) on the Auburn University campus fields questions all the time as to why there are no students available for the industry. The packaging industry is an emerging field that desires more sustainable solutions to a petroleum concentrated market. Currently, many of our plastics that are used as packaging products end up in landfills or oceans and takes centuries to degrade. There is thus an increased interest by the younger generation to find sustainable solutions to problems inherited by global climate change and excessive dependence on fossil fuels. The new proposed curriculum is being supported at Auburn University by faculty from the College of Agriculture and College of Engineering. This curriculum would be a STEM oriented program that is the first of its kind in the United States. This curriculum would be unique nationally because it utilizes supporting faculty across 5 Schools/Colleges. In fact, we anticipate other Universities to copy our model to enhance their undergraduate enrollment.

2. Please provide a description of the specific kinds of employment opportunities, post-graduate professional degree programs, and other graduate programs that will be available to the graduates.

The Alabama agriculture and forestry related industries account for 580,295 jobs and generate \$70.4 billion for the economy. The bioproducts and packaging industry will be supplied with undergraduate students that possess a unique suite of interdisciplinary skills. Finding an output for agricultural waste and crops and small diameter and underutilized trees will help to further stimulate the economy while relieving some of the impact of petroleum based products. Employment opportunities within this interdisciplinary field include: Product Development Engineer, Sales, Sales Manager, Business Quality Manager, Process Engineer, Field Technician, Biological Technician, Sustainability Engineer, Quality Engineer, Quality Improvement Manager. In addition, positions focused on chemistry, bioproducts, water and waste recycling plants, wood products industry, fiber-based textile industries, packaging (think Amazon.com) animal feed stock biofuels, pharmacy and cosmetics. For example, packaging is a rapidly growing industry with \$420 billion globally in total revenues. For example, in 2013 up to 27% of the packaging market has been replaced by

bio-derived plastics and that number is expected to grow to 46% by 2018. Employers will be demanding employees to fit their needs.

3. Succinctly list at least four (4) but no more than seven (7) of the most prominent ***student learning outcomes*** of the program. These outcomes should lend themselves to subsequent review and assessment of program accomplishments.
 - 1) **Understanding of the chemical, physics and mechanics properties of solid wood and bio-based products and packaging materials. In addition, students will understand the relationships between anatomical structure and physical/mechanical behavior of materials.**
 - 2) **Demonstrate understanding of fundamental concepts of material sustainability and life cycle assessment.**
 - 3) **Students will be to apply simple mathematical models from bio-composite theory to estimate real world performance.**
 - 4) **Understand the economic, legal, and social issues associated with using bio-information, students will learn that combining engineering with economics (techno-economics) is important in ensuring both a sustainable yet cost effective future material.**
 - 5) **Students within this degree program will be exposed to an overview of trade and marketing knowledge and the structure of both traditional forest products as well as emerging sustainable biomaterial industry segments.**

C. Need for the Program

1. ***State need.*** Briefly describe why the program is specifically needed for the State of Alabama. (State need is considered a priority in the review process.)

Currently the southeastern U.S. does not have a University that supplies undergraduate students to the biomaterials and sustainable packaging industry. Likewise, enrollment in 20th century Wood Science programs has recently declined throughout the United States. In order to reverse these trends, several programs across the US have reinvented themselves to attract students. For example, in the last 5 years Virginia Tech changed their name from the Department of Forest Products to the Department of Sustainable Biomaterial, with dramatic enrollment results. A cornerstone of Auburn's mission is the generation of new knowledge, new applications, and new perspectives through research and scholarly activity. The team that is supportive of our proposed curriculum is the same team that participated in our recent Cluster hire for enhancement of Interdisciplinary/Cluster based research at Auburn University. The

Alabama agriculture and forestry related industries account for 580,295 jobs and generate \$70.4 billion for the economy. Finding an output for agricultural waste and crops and small diameter and underutilized trees will help to further stimulate the economy while relieving some of the impact of petroleum based products. There is currently strong support from Alumni and Industry to hire graduates and interns from this new degree program. These stakeholders also communicated which classes would enhance student success upon graduation and have been involved in the courses developed within the proposed curriculum.

2. Employment Opportunities. Based on your research on the employment market for graduates of this program, please complete the following table reporting the total projected job openings (including both growth and replacement demands) in your local area, the state, the SREB region, and the nation. These job openings should represent positions that require graduation from a program such as the one proposed.

Career and College Readiness/Preparation -- Projected Job Openings

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Local	4	10	17	25	32	88
State	45	70	115	155	190	575
SREB	75	125	160	235	365	960
Nation	130	230	380	455	575	1770

Please briefly describe your methodology for determining employment opportunities – projected job openings. Be sure to cite any data sources used in formulating these projections. The actual survey instrument, detailed results, and associated data file(s) must be maintained internally by the institution for five years from the implementation date. The survey upon which the proposal is based must be available for ACHE Staff examination upon request for that five year timeframe. The survey instrument, detailed results, or associated data file(s) should not be included in the proposal.)

Packaging is a rapidly growing business, for example, in 2013 up to 27% of the packaging market has been replaced by bio-derived plastics and that number is expected to grow to 46% by 2018. To that end, the SFWS Advisory Board and Forest Products Development Center Advisory Board was surveyed to gauge their interest and to gain input as to what employment opportunities would be available. There is currently strong support from Alumni and Industry to hire graduates and interns from this program.

3. Student Demand - Enrollment projection. Please briefly describe your methodology for determining enrollment projections. If a survey of student interest was conducted, please briefly describe the survey instrument, number and percentage of respondents, and summary of results.

There are a couple of areas where we have gathered our projected enrollment numbers. First, there is currently strong support from Alumni and Industry to hire graduates and interns from this program. Simply, put they cannot locate qualified employees as the “forest product” market is not attractive to today’s current students. Thus, the rebranding of the degree program and the most compelling reason for student enrollment. In 2014, the Forest Products Department at VT rebranded and retooled their degree program. At the time, enrollment at had been stagnate for 8 years at 20-30 students per year. Within 4 years, their enrollment increased from 20 to 130 students. Similarly, at NC State, enrollment was at 120 for 10 years, after rebranding/retooling and reformulating their forest product degree program to Sustainable Biomaterials and Packing, their enrollment increased to 300 within 6 years. As the primary Forestry/Natural Resource/Wildlife Management program in Alabama, the School of Forestry and Wildlife Sciences are much better aligned, geographically to the industry and the college-bound students who are 1) not interested in “Forest Products”, but are looking to become involved in Sustainability of the biomaterial industry, and 2) perhaps capture some of those students that may be attending VT, NC State or Purdue, over Auburn University. We expect within 6 years to have an average of 20-25 students enrolled in this new degree program.

D. Specific Rationale (Strengths) for Program

What is the specific rationale (strengths) for recommending approval of this proposal? List no fewer than three (3) and no more than five (5) potential program strengths.

1. SFWS at Auburn University is the only forest-products based program in Alabama that has the human resources (faculty, staff) to offer a degree program as proposed. We are the ‘go-to’ unit for forestry, wildlife and natural resource management in the state of Alabama.
2. The SFWS is the home of the Forest Products Development Center, a region-based Research Cooperative that has access to and can tap into the billion-dollar industry for support, internships and direction of the degree program.
3. The SFWS at Auburn University has recently completed a Cluster hire for enhancement of Interdisciplinary/Cluster based research. So there will be rich focus on translating sustainable biomaterials research to useful applications across a suite of industries and society as a whole.

- 4. The new proposed curriculum is being supported by faculty from the College of Agriculture and College of Engineering. This curriculum would be a STEM oriented program that is the first of its kind in the United States. This curriculum would be unique nationally because it utilizes supporting faculty across 5 Schools/Colleges**

Please note that letters of support may be included with the proposal.

E. Similar Programs

Using the ACHE Academic Program inventory found at
<http://www.ache.state.al.us/Content/Departments/Instruction/StudentInfo.aspx>

List below all programs at the same degree level (by institution) that utilize the same 6-digit CIP code as the one being requested in the program proposal.

Also, list any programs at other CIP codes that may be offering similar instruction.

If there are no similar programs place a "0/none" by 1. in the listing directly below.

Note: Institutions should consult with ACHE Staff during the NISP phase of proposal development to determine what existing programs are considered duplicative of the proposed program.

The following institutions offer similar programs at this level:

- 1. Alabama A&M, BS Forestry**
- 2. Auburn University, BS Forestry**

Please add numeration and list additional similar programs, if applicable. If the program duplicates, closely resembles, or is similar to another program already offered in the State, provide justification for that duplication. Also, if a graduate program, please identify and list any similar programs at institutions in other SREB states.

The proposed Sustainable Biomaterials and Packaging BS degree shares the same CIP code (03.0599 Forestry, Other) with the undergraduate BS degree program at Alabama A&M and to Auburn University's, BS Forestry. This similar code is due to the CIP number and nothing else. The BS Forestry Degree at A&M and Auburn University are both accredited degree programs by the Society of American Foresters (SAF) and would fall under the "Forestry". This new degree program in Sustainable Biomaterials and Packaging has little resemblance or course overlap between the two curriculums and would not even qualify for accreditation standards by SAF. We are under the opinion, that this degree program falls under the "Other" part of the 03.0599 CIP code.

F. Collaboration With Other Institutions/Agencies

Does the institution plan on collaborating with other institutions in the delivery of this program?

Yes No

If yes, please indicate below which institutions and describe the basis of this collaboration.

If no, please indicate your reasons why.

SFWS will accept credit for equivalent courses taken at other institutions and teaching faculty will interact across departments, especially College of Business and College of Science and Math, however, we are not planning any formal collaboration with other institutions at this time.

G. Curriculum

1. Program Completion Requirements: (Enter a credit hour value for all applicable components, write N/A if not applicable)

Credit hours required in major courses	37
Credit hours required in minor	0
Credit hours in institutional general education or core curriculum	42
Credit hours required in support courses	38
Credit hours in required or free electives	3
Credit hours for thesis or dissertation	0
Total credit hours required for completion	120

2. Will this program be related to other programs at your institution?

This program is unrelated to any other program at Auburn University.

If so, which ones and how?

3. Please identify any existing program, option, concentration or track that this program will replace at your institution.

The Sustainable Biomaterials and Packaging Degree at Auburn University is unique and not directly related to other degrees at the institution. However, it may draw students from other departments that have an interest in the environment / sustainability and/or that may not be familiar with the “forest products” industry.

4. Is it likely that this program will reduce enrollments in other graduate programs at your institution? If so, please explain.

This new degree proposal is not part of a graduate program.

5. If this is a graduate program, please list any existing undergraduate programs at the institution which are directly or indirectly related to the proposed graduate program. If this is a doctoral proposal, also list related master's programs at your institution.

NA. Not a graduate degree program.

6. Please complete the table below indicating the proposed program's courses. Include the course number, and number of credits. (If feasible/useful, please group courses by sub-headings within the table.)

Course Number and Title	Number of Credit Hours	* If New Course
Freshman Year	32	
ENGL 1100 & 1120 English Composition I & II	6	
BIOL Principals of Biology & Lab 1020/1021 & 1030/1031	8	
Math 1130 Pre-Calculus Trig or Higher	3	
CORE History (or Literature Sequence)	3	
INDD 1120 Industrial Design in Modern Society	3	
CORE History or Social Science	3	
CORE History	3	
STAT 2510 Statistics Biological and Health Sciences	3	
Sophomore Year	32	
CHEM 1030/1031 & CHEM 1040/1041	8	
BIOP 2120 Frontiers of Sustainable Materials	3	*
ECON 2020 Principals of Microeconomics	3	
CORE Literature (or History sequence)	3	
COMM 1000 Public Speaking	3	
MKTG Principals of Marketing	3	
CORE Humanities	3	
CORE Arts	3	
SUST 2000 Introduction to Sustainability	3	
Junior Year	28	
BIOP 3390 Intro Forest Products and Packaging	3	*
BIOP 3391 Forest and Manufacturing Processes	1	*
BIOP 4050 Biomass Processing Chemistry	3	*
BIOP 4060 Economics of Bioproducts and Packaging	3	*
BIOP 4070 Performance & Durability of Products and Packaging	3	*
BIOP 4080 Business Management for Products	3	*
BIOP 4360 Sustainable Biomaterials Trade and Marketing	3	*
SCMN 3150 Management of Business Process	2	
MATL 2220 or MATL 2230	1	

Senior Year	28	
BIOP 4840 Sustainability & Life Cycle Assessment	3	*
BIOP 5250 Wood Composites for Biomaterials and Packaging	3	*
BSEN 4400 Agricultural Production & Facility Techniques	3	
BIOP 4400/4410 Biomaterials Product Development I & II	2	*
ENVD 4010 Elements of Design, Thinking and Communication	3	
BIOP 4800 Biopolymers for Biomaterials and Packaging	3	
SCMN 5720 Quality and Process Improvement	3	
BSEN 4240 Fundamentals Bulk Solid Behavior & Processes	3	
FORV 4820 Forestry in the Private Sector	1	
Free Elective	3	

7. Enumerate and briefly describe any additional requirements such as preliminary qualifying examination, comprehensive examination, thesis, dissertation, practicum or internship, some of which may carry credit hours included in the list above.

There will be no additional requirements or examinations needed for this degree other than Auburn University's current application guidelines.

8. Does the program include any options/concentration. If so, please describe the purpose and rationale and list the courses in the option.

No options or concentrations will be required or offered for this degree program.

9. State and list if the program has any special admission requirements. If none, state:

The BIOP degree program has no special admission requirements.

H. Program Review and Assessment

In the final analysis, the institution and its governing board are accountable for the quality, utility and productivity of this and all other programs of instruction.

With this in mind, please describe the procedures that will be used in assessing the program's outcomes.

Be sure to include:

1. An assessment process for the student learning outcomes;

Student Learning Outcomes	Assessment	Results
Understanding of the chemical, physics and mechanics properties of solid wood and bio-based products and packaging materials.	Chemistry and physical bioproduct data sets and models will be used to assess knowledge gains through course assignments.	
Apply critical thinking, problem solving and communication skills to solve problems in professional settings.	Communication and critical thinking skills will be assessed through writing assignments and oral presentations using a rubric evaluation method.	
Demonstrate understanding of fundamental concepts of material sustainability and life cycle assessment	Assess the proficiency gained in courses and other data related technologies through course assignments and pre/post exams.	
Students will be to apply simple mathematical models from bio-composite theory to estimate real world performance.	Database design assessment examining bio-composite theory will be through course assignments, specific test questions and pre/post degree exams	
Understand the economic, legal, and social issues associated with using bio-information, combining engineering with economics ensuring a sustainable yet cost effective future material.	Evaluation of the report from the Final Year Capstone Project work in BIOP 4400 and BIOP 4410.	
Students will understand the trade and marketing structure of both traditional forest products as well as emerging sustainable biomaterial industry segments.	Marketing and Trade structure skills for business management will be assessed through writing assignments and oral presentations using a rubric evaluation method.	

2. A follow-up plan to determine accomplishments of graduates such as obtaining relevant employment or being admitted to a masters or doctoral program (graduate or professional).

All graduating students from SFWS are currently surveyed before they leave Auburn University (FORY, WILD, NATR, GSEI) concerning their employment and collect their contact information to build an active alumni support group. In addition, all graduates are asked to evaluate the strength and weaknesses of our curriculum and degree program. This survey process will continue for the BIOP students with information used to

improve/modify/amend the degree program over time as needed. Graduates employability in terms of median salary, type of employment, and/or admission to the graduate program will be compared with the outcome from similar program in the state of Alabama.

I. Accreditation

If there is a recognized (USDE or CHEA) or other specialized accreditation agency for this program, please identify the agency and explain why you do or not plan to seek accreditation. If there is no accrediting or similar body for this degree program state as such in your response.

The Society of Wood Science and Technology is an oversight group that has accredited other University degree programs that the Sustainable Biomaterials and Packaging degree would fall under. In addition, many of the courses taught within SFWS as part of this new degree program fall under either the Society of American Foresters or the Wildlife Federation, of which are part of an accreditation body currently in use within the SFWS.

J. Instructional Delivery Method

1. Describe which instructional delivery methods will be utilized in delivering this program.

This degree will be traditional lecture and laboratory courses at Auburn University. However, some of the AU required core courses may fall under the “flipped classroom” pedagogy of instruction that focuses on experiential and inquire-based learning.

2. If distance technology is being utilized, indicate an approximate percent of the total program’s courses offered that will be provided by distance education 5 %

Auburn University will accept either core courses or elective courses that fall under the course equivalency.

3. If distance education is not being utilized, please explain why not.

The large number of hand’s-on products-based laboratories and field-based laboratories associated with the required courses in this proposed degree make it difficult to conducted under a distance education format. Especially, the Major Courses. The Core courses, English, Math, Humanities, courses may be available in DE format and would be accepted as part of the degree program. The Curriculum model is set up for many students to take core courses at other institutions that than could transfer into AU as a Junior and still graduate in 4-yrs.

K. Resource Requirements

1. Faculty. Do not attach the curriculum vitae of each existing or additional faculty members to this proposal. (The institution must maintain and have current and additional primary and support faculty curriculum vitae available upon ACHE request for as long as the program is active.) *Please do provide a brief summary of Faculty and their qualifications specific to the program proposal.*

a) Please provide faculty counts for the proposed program:

Dr. Brian Via – is currently a Professor & Director of the Forest Products Development Center and is currently Regions Bank Professor and Director of the Forest Products Development Center. He has 7 years of industry experience at International Paper and Louisiana Pacific Corporation. This background allows for him to relate to the students about real industry issues. He also performs multidisciplinary research across campus and these scientific findings can be brought to the classroom.

Dr. Marie Sole Peresin – is currently an Assistant Professor and a BS, MS, Forest Biomaterials; PhD 2011, North Carolina University. Her specialization is the development of value-added materials based on renewable biomass, with a strong emphasis on nanocellulose. **Teaching Responsibilities:** **Research Interests:** Her research interests include biopolymers and analytical chemistry, nanocomposites, nanotechnology and materials, polymers and surface science.

Status	Faculty Type	
	Primary	Support
Current- Full Time	2	
Current-Part Time	0	
Additional-Full Time (to be hired)	0	
Additional-Part Time (to be hired)	0	

b) Briefly describe the qualifications of new faculty to be hired.

2. Equipment. Will any special equipment be needed specifically for this program?

Yes No

If "Yes", please list:

The cost of the new equipment should be included in the table following (Section K.).

3. Facilities. Will any new facilities be required specifically for the program?

Yes No

If "Yes", please list. Only new facilities need be listed. Their cost should be included in the table following (Section K.).

4. Library. Are there sufficient library resources to support the program?

Yes No

Please provide a brief description of the current status of the library collections supporting the proposed program.

The Ralph Brown Draughon Library is named in honor of Dr. Ralph Brown Draughon, president of Auburn University from 1947 to 1965, and a moving force behind the construction of the original portion of the Library. With the completion of a 207,000 square foot addition in 1991, the Library has a seating capacity of 2,500 designed to serve the study, teaching, and research needs of Auburn students, faculty, and staff.

The combined collections of the Auburn University Libraries contain over 3 million volumes as well as 2.6 million government documents, 2.5 million microforms, and over 148,000 maps. The Libraries receive over 35,000 current periodicals, many which are available online. The library also provides access to over 227 electronic databases and has over 10 million archival and manuscript items.

If "No", please briefly describe how any deficiencies will be remedied; include the cost in the table following (Section K.).

5. Assistantships/Fellowships. Will you offer any assistantships specifically for this program?

Yes No

If "Yes", how many assistantships will be offered? Be sure to include the amount in the table following.

Number of assistantships offered
Be sure to include the cost of assistantships in the table following (Section K.).

6. Program Budget. The proposal projected that a total of \$ in estimated new funds will be required to support the proposed program.

A projected total of \$ will be available to support the new program.

L. New Academic Degree Program Proposal Summary Form

- In the following "NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY" table, please provide a realistic estimate of the costs of the program.
- This should only include the additional costs that will be incurred, not current costs.
- Indicate the sources and amounts of funds available for the program's support.
- DO NOT LEAVE ANY PORTION/SOURCES OF THE NEW FUNDS OR FUNDS AVAILABLE BLANK. ENTER "\$0" IF THERE ARE NO NEW FUNDS NEEDED OR NO FUNDS AVAILABLE.
- THERE MUST BE AN ACTUAL DOLLAR AMOUNT PROVIDED FOR TUITION, SINCE THOSE FIGURES REPRESENT PROJECTED ENROLLED STUDENTS.
- **If it is stated that new funds are requested or if it is a reallocation of resources, please explain directly below from what source(s) the funds for the proposed new program, (e.g. faculty, equipment, etc.) will be attained.**
- **If tuition is used to support the program, what start-up revenue source will be used to initiate the program.**
-

Also, include enrollment and completer projections.

- New enrollment headcounts are defined as unduplicated counts across years. For example, if "Student A" would be initially enrolled in the program in year 2, and again is enrolled in the program in years 4 and 5; "Student A" is only counted in the new enrollment headcount in year 2.
- Total enrollment headcounts represent the actual number of students enrolled (both part-time and full time each year. This is a duplicated count).

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

INSTITUTION	Auburn University
PROGRAM	Bachelor of Science – Sustainable Biomaterials and Packaging (BIOP)

ESTIMATED NEW FUNDS REQUIRED TO SUPPORT PROPOSED PROGRAM

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
FACULTY	\$0	\$0	\$0	\$0	\$0	\$0
LIBRARY	\$0	\$0	\$0	\$0	\$0	\$0
FACILITIES	\$0	\$0	\$0	\$0	\$0	\$0
EQUIPMENT	\$0	\$0	\$0	\$0	\$0	\$0
STAFF	\$0	\$0	\$0	\$0	\$0	\$0
ASSISTANTSHIPS	\$0	\$0	\$0	\$0	\$0	\$0
OTHER	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

SOURCES OF FUNDS AVAILABLE FOR PROGRAM SUPPORT

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
INTERNAL REALLOCATIONS	\$0	\$0	\$0	\$0	\$0	\$0
EXTRAMURAL	\$0	\$0	\$0	\$0	\$0	\$0
TUITION	\$184,400*	\$379,800	\$667,400	\$870,400	\$1,331,400	\$3,433,000
TOTAL	\$184,400	\$379,800	\$667,400	\$870,400	\$1,331,400	\$3,433,000

ENROLLMENT PROJECTIONS AND DEGREE COMPLETION PROJECTIONS

Note: "New Enrollment Headcount" is defined as unduplicated counts across years.

	Year 1	Year 2	Year 3	Year 4	Year 5	5-YEAR AVERAGE
FULL TIME HEADCOUNT	10	12	15	20	25	16
PART TIME HEADCOUNT	0	0	0	0	0	0
TOTAL HEADCOUNT	10	22	37	47	72	37
NEW ENROLLMENT HEADCOUNT	10	12	15	20	25	16
DEGREE COMPLETION PROJECTIONS	0	0	5	10	12	9

*** Based on 2017 Tuition and Fees and current percentage AU student population of 40% out of state and 60% in-state residency.**