

Eastern West Virginia  
Community and Technical College



Program Review  
BET Post-Audit Review  
2020

Submitted by: Amo Oliverio, Faculty (Science)

Approved by Assessment Committee: 05/26/20  
Approved by LOT: 05/27/20  
Approved by Cabinet: 06/02/20  
Approved by BOG: 06/17/20

**Post-Audit Review**  
**For Occupational Programs Implemented Under the Provisions of Series 37**  
West Virginia Council for Community and Technical College Education

Institution: Eastern West Virginia Community and Technical College  
Program (Degree and Title): Biological and Environmental Technology  
Review Date: May 2020

### I. Introduction

Provide a narrative regarding your program (including information for any options or tracks), its nature, unique characteristics, etc. Please limit to one page. It is appropriate to use the catalog description.

This report serves as an account of the initial 3-year development process of the infant B.E.T. program, by outlining the series of program and curriculum changes and the associated decision-making process. Future actionable steps to further improve the program will also be addressed.

The Biological and Environmental Technology program (BET) offers students an opportunity to earn an Associate in Applied Science degree. This program provides students with the skills and knowledge for entry level biological and environmental technology-related careers.

Graduates of this program will be qualified for employment as biological technicians, environmental technicians, and GIS technicians.

Upon successful completion of the Biological and Environmental Technology program, graduates will be able to:

- Follow standard procedures for conducting biological and environmental sampling projects, including use of appropriate equipment and materials.
- Use biologic knowledge and identification skills to aid in the use of practical and ethical biological surveys
- Collect representative samples and perform routine tests using current and relevant tools
- Complete assigned tasks in adherence to occupational health and safety standards and applicable legislative requirements
- Carry out work responsibilities adhering to standards of professional conduct and principles of professional ethics
- Communicate technical information accurately and effectively in oral, written, visual, and electronic forms
- Assist with analysis of water/soil/air samples with the application of scientific and engineering principles
- Use scientific concepts and models when contributing to the prevention, control, and elimination of environmental hazards of remediation of contaminated sites
- Promote and maintain sustainable practices applying the elements of an ecosystem-based environment
- Develop and present strategies for ongoing personal and professional development to enhance performance as a biological and environmental technician
- Use global positioning systems (G.P.S.) and geographic information systems (G.I.S.) to collect, map, and analyze biological and environmental data

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

## II. Goals and Objectives

Identify the goals and objectives of the program. Document the need that the program was implemented to meet.

***How this Program fits into the College's Mission and Vision:*** The goal of Eastern West Virginia Community and Technical College in developing a Biological and Environmental Technology A.A.S. program is to meet the needs of the employers in its service area. The proposed program supports the mission in two ways. First, the program addresses the expressed need for properly trained professionals for the sampling and monitoring of the environment. Secondly, through assessment and articulation of existing skills the program encourages existing workers to return to school to obtain credentials and to work toward a degree. The program also provides an opportunity for retraining workers to help them obtain new positions with excellent earning opportunities.

***How this Program meets Institutional Goals and Objectives:*** This program will provide:

- Graduates to meet current and projected regional employment needs for entry-level environmental technology related fields.
- Provide workers with credentials for new employment opportunities.
- Skills and tools to continue learning about advancements in their field and personal growth.
- Required textbooks and materials are selected to provide excellent curriculum, but at an affordable price by using many open education resources for general science education courses and core curriculum.
- B.E.T. core curriculum includes professional training and certification in various fields various organizations at no additional cost to the student.

### **Program Learning Outcomes as per LOT Committee Approval November 2019:**

The B.E.T. Geographic Information System (G.I.S.) Skill Set:

- Demonstrate their abilities to think mathematically by applying mathematical concepts in problem-solving including estimation, computation, analysis, assimilation, application, transference and modeling strategies as appropriate workforce skills and lifelong learning.
- Use global positioning systems (G.P.S.) and geographic information systems (G.I.S.) to collect, map, and analyze biological and environmental data.

The B.E.T. Certificate of Applied Science (C.A.S.) Program will include additional training listed below:

- Demonstrate their ability to think critically by observing critically, reading critically, planning, reflecting, analyzing, evaluating and synthesizing by using multiple modalities of inquiry to collect information including organizing, evaluating, analyzing, and interpreting findings.
- Communicate technical information accurately and effectively in oral, written, visual, and electronic forms.
- Develop and present strategies for ongoing personal and professional development to enhance performance as a biological and environmental technician.

The B.E.T. Associates in Applied Science (A.A.S.) Degree will include additional training listed below:

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

- Follow standard procedures for conducting biological and environmental sampling projects including use of appropriate equipment and materials.
- Use biologic knowledge and identification skills to aid in the use of practical and ethical biological surveys.
- Collect representative samples and perform routine tests using current and relevant tools.
- Complete assigned tasks in adherence to occupational health and safety standards and applicable legislative requirements.
- Carry out work responsibilities adhering to standards of professional conduct and principles of professional ethics.
- Assist with analysis of water/soil/air samples with the application of scientific and engineering principles.
- Use scientific concepts and models when contributing to the prevention, control, and elimination of environmental hazards of remediation of contaminated sites.
- Promote and maintain sustainable practices applying the elements of an ecosystem-based environment.

### III. Assessment

A. Summarize the principal elements of the departmental assessment plan. The plan must include elements to assess student learning and programmatic outcomes.

#### **Assessment of Goals and Outcomes:**

- Targeted Program Courses as per B.E.T. Program Assessment Plan 2017: At least 75% of students enrolling in B.E.T. courses will successfully complete the course(s). This will be determined at the end of each semester based on final grades. Beginning in fall 2017, completion rates for ELM 100 Occupational Safety & Health, CIS 160 Introduction to Geographic Information Systems and Data Collection, BET 200 Field Biology and BET 240 Soil and Water Conservation will be targeted. At least 75% of the students will demonstrate mastery of the course outcomes by earning at least a 70% average in each course through a variety of classroom assessments.

Courses to be assessed in subsequent semesters will be determined based on program implementation schedule.

#### **Effectiveness of Assessment Plan:**

As this program grows, additional methods of assessment will be added to determine student success and effectiveness of the curriculum. The Five Fundamental Question for Conversations on Student Learning (Priddy and Solomon) will serve as prompts for dialog in utilization of assessment data for improvement of student learning. As trends in student academic achievement are monitored, need for additional assessment activities or change in focus will become evident by applicability of results in curriculum revision.

The five Fundamental Questions for Conversation on Student Learning (Priddy and Solomon)

1. How are state students' learning outcomes appropriate to your mission, programs and degrees?
2. What evidence do you have that students achieve your stated learning outcomes?
3. In what ways do you analyze and use evidence of student learning?
4. How do you ensure shared responsibility for assessment of student learning? How do you evaluate and improve the effectiveness of assessment of student learning efforts?

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

- Drop Rate: For spring 2018, the drop rate for CIS 160 Introduction to Geographic Information Systems and Data Collection will not exceed 30%.

- *CIS160 Spring 2018 drop rate - 0%. (4 enrolled students)*
- *CIS160 changed to BET160 (Nov. 2018)*
- *BET160 Spring 2018 drop rate- 0%. (4 of enrolled students)*
- *BET160 Fall 2019 drop rate – 25% (4 enrolled students)*

- Course-level effectiveness: Course outcomes for targeted BET courses will be assessed on a cyclical basis over a three-year period. At least four outcomes each from two courses will be assessed annually. Exam questions linked to course learning outcomes are included in the final examinations. Students' performance in answering these questions will be analyzed across sections and semesters. For fall 2017, ELM 100 Occupational Safety & Health will be the targeted course. Courses to be assessed in subsequent semesters will be determined based on the part-time evening program implementation schedule.

- Graduation Rate: At least 75% of students enrolling in the B.E.T. CAS will successfully complete the Certificate Program within 3 years. This will be measured by the number of graduates from the program. At least 75% of students enrolling in the B.E.T. A.A.S will successfully complete the degree within 4 years.

- *Since the official start of the B.E.T. program in the fall of 2018, eight students have enrolled in the B.E.T. program. One graduated in May 2019, one non-traditional student decided not to pursue a college degree at this time and dropped out, and one student switched majors. The rest are still actively working towards their B.E.T. A.A.S. degree.*

- Syllabus Analysis: Syllabus analysis will be conducted on an annual basis to assure consistency of outcomes with the Master Course Record Forms and among section of specific courses.

- *All syllabi are reviewed by the B.E.T. Program Coordinator and Division Chair for General Studies to ensure compliance.*

- Transcript Analysis: Transcript analysis will be conducted as triggered by deficiencies in course level assessment activities.

- *The B.E.T. Program Coordinator acts as academic advisor to all B.E.T. students. Therefore, each student's current transcript and program progress is reviewed with the student when registering for the next semester's courses. The student's progress and performance is also reviewed through Degree Works.*

- Enrollment Patterns: Enrollment trends will be monitored. Shifts in target courses and number of majors will trigger detailed assessment review as defined in above items. Courses to be assessed will be determined based on the Program Implementation schedule.

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

- *The enrollment trend has increased each academic year since inception.*
  - *2017-2018: one student enrolled.*
  - *2018-2019: 3 students enrolled, one graduated with B.E.T. A.A.S. degree, one withdrew from college.*
  - *2019-2020: 7 students enrolled, one of those students switched majors.*
  - *B.E.T. courses are assessed as per the course assessment report (C.A.R.) schedule developed by the Assessment committee. See Data Analysis and Recommendations for results of B.E.T. CARs.*
- Course evaluation surveys: used as indirect assessment measures of student success and satisfaction. Survey questions provide self-reports of learning acquired through course completion, understanding of intended course learning outcomes, satisfaction with instruction, and course effectiveness.
    - *Due to low number of enrolled students in each course, statistical analysis of IDEA surveys is not applicable at this time. Surveys are only conducted for sections with 5 or more students enrolled in order to protect the anonymity of those completing it.*
    - *IDEA student satisfaction surveys have been replaced by an internally administered student satisfaction survey using the Blackboard platform.*

B. Provide information on the following elements:

i. Educational goals of the program

***How this Program meets Institutional Goals and Objectives:*** This program will provide:

- Graduates to meet current and projected regional employment needs for entry-level environmental technology related fields.
- Provide workers with credentials for new employment opportunities.
- Skills and tools to continue learning about advancements in their field and personal growth.
- Required textbooks and materials are selected to provide excellent curriculum, but at an affordable price by using many open education resources for general science education courses and core curriculum.
- B.E.T. core curriculum includes professional training and certification in various fields various organizations at no additional cost to the student.

ii. Measures of evaluating success in achieving goals

**Data Collection as per B.E.T. Program Assessment Plan 2017:**

Multiple methods will be used to collect appropriate data to assess student learning and success. Primary data will be analyzed to determine course level effectiveness. A secondary analysis of student records will be conducted to track student success, engagement and goal attainment. Student records selected for the secondary analysis include enrollment patterns in paraprofessional in education, course grades, drop rates, and certificate, or job attainment.

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

Target outcomes will be identified for evaluation over a three-year cycle. Standard exam questions will be administered across multiple sections of target courses.

A secondary analysis of course evaluation will be conducted to address students' perceptions of success and satisfaction. Self-reports will provide a qualitative perspective of the students' "lived experience" in targeted program courses.

- *Primary methods of collecting student learning and success derives from B.E.T. core course assessment reports.*
  - *To assist in the evaluation of target program outcomes, a Program Learning Outcome vs course learning outcome matrix has been created. Following the latest program changes in November of 2019, this program to course outcome matrix needs to be revised.*
  - *The College's Student Satisfaction Survey, run towards the end of each semester, provides students with the opportunity to rate their experience of the course, both in terms of statistical feedback and written comments.*
- iii. Identification of the goals which are being successfully met and those which need attention as determined by an analysis of the data

All B.E.T. program learning outcomes have met the 75% performance level. The program matrix needs to be updated due to recent changes to the program learning outcomes and technical core courses to ensure all program learner outcomes are adequately assessed throughout the B.E.T. program.

C. Provide information on how assessment data is used to improve program quality. Include specific examples.

### **Summary of Course Assessment Report Results from LOT Approved CARs as of January 2020**

#### **Fall 2018 - Field Biology I (BET200): (1 section, 1 student)**

All course learning outcomes were covered by multiple assessments of various types. Statistical analysis of class performance impossible due to only one student enrolled. This student completed all assessments and performed much higher than the 75% performance level mark for each.

Valuable insight was discovered upon course reflection. The vague and encompassing course learning outcomes of BET 200 and its sister course, BET 210, needed to be revised. For details of changes, *see LOT Committee Approval November 2019*. The next CARs for BET 202 and BET 212 in the academic year 2020-2021 will greatly determine the effectiveness of course curriculum changes and spawn further improvements.

#### **Spring 2019 – Intro to G.I.S. and Data Collection (BET 160): (1 section, 4 students)**

All course learning outcomes were covered by a wide variety of assessment types, including exams, quizzes, projects, and assignments. All students performed above the 75% performance mark on all assessments and outcomes. However, the student performance average for the

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

midterm and final exam was 76.5% and requires future action. To improve the student performance on exams in the future, the instructor plans to create structured study guides and delineate time to review material. The instructor has also begun using Blackboard for this course, which will enable a more encompassing CAR in the future. Specific assessments will also be linked to various program outcomes to enable an annual program report to be produced.

Spring 2019 – Ethics and the Environment (SSC 210): (1 section, 2 students)

All learning outcomes were covered by a wide variety of assessment types, including tests, discussions, writing assignments, and activities. Unfortunately, a quirk of building course shells in Blackboard, the instructor was unaware that his present setup did not allow for the Blackboard assessment tool to properly separate all the different types and lumped them into assignments and tests. Both students performed well above the standard 75% performance mark, with 86% being the lowest for any learning outcome or assessment.

Spring 2019 – B.E.T. Capstone (BET 276): (1 section, 1 student)

All learning outcomes were covered by at least two assessments. This course also implemented the OSHA and safety training that was originally covered in WTT 110. The student achieved the OSHA-10hr certificate through 360 Training and Introduction to OSHA certificate and HAZWOPER Basics certificate through CareerSafe. The certificates increase the coverage for the following program learning outcome:

- Complete assigned tasks in adherence to occupational health and safety standards and applicable legislative requirements.

The student also completed all other assessments well above the 75% performance mark, with 85% the lowest score. The assessments and implementation require no changes at this time.

#### IV. Curriculum

A. Include a summary of degree requirements (including entrance standards and exit standards) and provide commentary on significant features of the curriculum.

- There are no “special” B.E.T. entrance requirements other than the standard AccuPlacer admission exams and requirements established by Eastern WV CTC, such as described in the Catalog under Registration, Assessment, and Advising.
- Students must earn a minimum of a 3.0 or higher in all B.E.T. technical core courses and or higher cumulative grade point average on all college work not excluded in the computation of the GPA as a result of applying other Eastern policies.
- Graduates are required to complete an ETS Test, which focuses on critical thinking, math, and English for Associate Degree General Education.
- No B.E.T. specific exit standards established at this time. A B.E.T. exit exam is being drafted and will be proposed to the Advisory Committee and other unofficial advisors of the B.E.T. program.

**Program Learning Outcomes as per LOT Committee Approval November 2019:**

The B.E.T. Geographic Information System (G.I.S.) Skill Set:

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

- Demonstrate their abilities to think mathematically by applying mathematical concepts in problem-solving including estimation, computation, analysis, assimilation, application, transference and modeling strategies as appropriate workforce skills and lifelong learning.
- Use global positioning systems (G.P.S.) and geographic information systems (G.I.S.) to collect, map, and analyze biological and environmental data.

The B.E.T. Certificate of Applied Science (C.A.S.) Program will include additional training listed below:

- Demonstrate their ability to think critically by observing critically, reading critically, planning, reflecting, analyzing, evaluating and synthesizing by using multiple modalities of inquiry to collect information including organizing, evaluating, analyzing, and interpreting findings.
- Communicate technical information accurately and effectively in oral, written, visual, and electronic forms.
- Develop and present strategies for ongoing personal and professional development to enhance performance as a biological and environmental technician.

The B.E.T. Associates in Applied Science (A.A.S.) Degree will include additional training listed below:

- Follow standard procedures for conducting biological and environmental sampling projects including use of appropriate equipment and materials.
- Use biologic knowledge and identification skills to aid in the use of practical and ethical biological surveys.
- Collect representative samples and perform routine tests using current and relevant tools.
- Complete assigned tasks in adherence to occupational health and safety standards and applicable legislative requirements.
- Carry out work responsibilities adhering to standards of professional conduct and principles of professional ethics.
- Assist with analysis of water/soil/air samples with the application of scientific and engineering principles.
- Use scientific concepts and models when contributing to the prevention, control, and elimination of environmental hazards of remediation of contaminated sites.
- Promote and maintain sustainable practices applying the elements of an ecosystem-based environment.

B. Provide a list of courses along with the number of credit hours required for each course. Include specific course titles and numbers. Label as Appendix I.

See Appendix I.

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

C. Submit a listing of the course delivery modes.

<b>Course</b>	<b>Title</b>	<b>Delivery Mode</b>
BET 100	B.E.T. Seminar	Live
BET 160	Introduction to G.I.S. and Data Collection	Live
BET 202	Dendrology and Forest Management	Live
BET 212	Wildlife Biology	Live
BET 235	Water Quality Collection and Assessment	Live
BET 240	Soil and Water Conservation	Live
BET 270	Freshwater Fisheries: Biology and Management	Live
BET 276	B.E.T. Capstone	Live
BIO 101	General Biology I Lecture	Online
BIO 101L	General Biology I Lab	Live*
BIO 102	General Biology II Lecture	Online
BIO 102L	General Biology II Lab	Live
BIO 215	Plant Taxonomy	Live
BIO 220	General Ecology Lecture	Live
BIO 220L	General Ecology Lab	Live
CHM 200	Environmental Chemistry	Live
CIS 114	Introduction to Computers	Live\Online
ENL 101	English Composition I	Live\Online
GSC 110	General Physical Science II Lecture	Live\Online
GSC 110L	General Physical Science II Lab	Live
GSC 120	Environmental Science	Online
MTH 121	College Math	Live/Online
SPH 101	Speech Fundamentals	Live/Online
SSC 210	Ethics and the Environment	Live

\* One semester of BIO 101L was offered online using a new virtual lab software package. Due to numerous and frequent technical issues, this delivery mode has been abandoned at this time.

V. Faculty

Submit information on the total number of full-time and part-time faculty utilized per year to deliver the program. Use Appendix II forms. The narrative should summarize points relating to faculty teaching courses within the major (percentage of faculty holding tenure, extent of use of part-time faculty, level of academic preparation, etc.) Data on part-time faculty may be abbreviated but should minimally include academic degree held and list of courses taught. See Appendix II

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

## VI. Enrollment and Graduates

- A. Submit data indicating the headcount and full-time equivalency (FTE) enrollment along with the number of graduates for each year the program has been in existence. Label as Appendix III.

See Appendix III

- B. Provide information on graduates in terms of places of employment, starting salary ranges, and number employed in the field of specialization. Include evidence and results of follow-up studies of graduates and employers. The studies should indicate graduate and employer satisfaction with the effectiveness of the educational experience. A summary of the results to be included should indicate the number of individuals surveyed or contacted and the number of respondents.

C. Present information on the success of graduates in achieving acceptance into baccalaureate programs.

**NOTE:** Do not identify students or graduates by name.

## VII. Financial

- A. Indicate the annual total expenditures to deliver the program and source(s) of funding for the program. Include departmental resources, state appropriated funds, grants and contracts, state funds and student fees.
- B. Identify projection of future resource requirements and source of funding.

From August 2016 to August 2019, the B.E.T. instructor salaries and equipment purchases were covered by a 3-year Perkins Technical Program Development Grant. Annual expenses are as follows: FY 2017 (\$58,790), FY 2018 (\$74,315), and FY 2019 (\$78,010).

Presently, salaries and other expenses are supported by tuition and fees. Funds for acquisition of lab and field equipment can be supplemented by various research grants, such as the Kempton Mine Complex and Watershed Improvement Grant, which is to be approved in 2020. Other funding opportunities are being explored.

## VIII. Advisory Committee

List all advisory committee members. Provide information on how the advisory committee has been utilized for program improvement.

Advisory Committee Review: Annual advisory committee review will provide qualitative evaluation of program effectiveness in meeting regional employment needs.

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

- *An initial Advisory Committee was created with five individuals representing various fields encompassed by the B.E.T. program. A meeting was held on campus in 2017 to review and revise the program learning outcomes and curriculum.*
- *Future meetings of the original Advisory Committee members became impossible due to their distance from the college, retirement and relocation, or other factors. Therefore, a new strategy was developed specifically to gain the wisdom and guidance of as many professionals as possible in the widest range of fields and sectors encompassed by the B.E.T. program.*
- *Extensive interviews with various representatives of professional organizations in the field, such as the U.S.G.S. Leestown Faculty, WV Department of Agriculture, WV Forestry, WV DNR, EPA, WV DEP, watershed organizations, MD DNR, MD DEP and Garrett College, were conducted either in person, telephone, email, or chance encounter. Specific curriculum or program changes were disseminated to the associated professionals to review and changes were based from the collective opinions. Other program changes resulted from the professionals' answers to questions such as:*
  - *What are the most important skills you are looking for when hiring a new technician in your field?*
  - *What basic skills or knowledge would benefit your organization if the new technician was already competent and reduced the time they would have to train the new employee?*
  - *What are specific skills that the B.E.T. program could focus on that would fit your need better?*
  - *What portions of the B.E.T. program's curriculum would be the most valuable to help a B.E.T. graduate to be hired? Are there skills or curriculum missing you would want included?*
- *This process reduced the waiting time for a set committee meeting to occur and also increased the variety and sheer number of individuals giving advice and guidance.*

## IX. Accreditation

Is an accreditation process available in this field of study? If so, what is the accreditation status of the program?

There is no accreditation process available in this field of study at this time.

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

**Appendix I:** A list of courses along with the number of credit hours:

<b>First Year—Fall Semester</b>				<b>First Year—Spring Semester</b>			
<b>Dept.</b>		<b>Course Title</b>	<b>Sem. Hrs.</b>	<b>Dept.</b>		<b>Course Title</b>	<b>Sem. Hrs.</b>
BIO	101	<b>General Biology I Lecture</b>	3	BIO	102	<b>General Biology II Lecture</b>	3
BIO	101L	<b>General Biology I Lab</b>	1	BIO	102L	<b>General Biology II Lab</b>	1
CIS	114	<b>Introduction to Computers</b>	3	GSC	110	<b>General Physical Science II Lecture</b>	3
ENL	101	<b>English Composition I</b>	3	GSC	110L	<b>General Physical Science II Lab</b>	1
MTH	Elective	<b>MTH 121 or Higher</b>	3	BET	160	<b>Introduction to Geographic Information Systems and Data Collection</b>	3
BET	100	<b>BET Seminar</b>	1	SPH	101	<b>Speech Fundamentals</b>	3
<b>Total Semester Hours</b>			<b>14</b>	<b>Total Semester Hours</b>			<b>14</b>

<b>First Year – Summer Semester</b>			
<b>Dept.</b>		<b>Course Title</b>	<b>Sem. Hrs.</b>
BIO	215	<b>Plant Taxonomy</b>	3
<b>Total Semester Hours</b>			<b>3</b>

<b>Second Year—Fall Semester</b>				<b>Second Year—Spring Semester</b>			
<b>Dept.</b>		<b>Course Title</b>	<b>Sem. Hrs.</b>	<b>Dept.</b>		<b>Course Title</b>	<b>Sem. Hrs.</b>
BET	202	<b>Dendrology and Forest Management</b>	4	BET	212	<b>Wildlife Biology</b>	3
CHM	200	<b>Environmental Chemistry</b>	4	BET	235	<b>Water Quality Collection and Assessment</b>	2
BET	240	<b>Soil and Water Conservation</b>	3	SSC	210	<b>Ethics and the Environment</b>	3
BET	270	<b>Freshwater Fisheries: Biology and Management</b>	2	BIO	220	<b>General Ecology</b>	3
				BIO	220L	<b>General Ecology Lab</b>	1
GSC	120	<b>Concepts in Environmental Science</b>	3	BET	276	<b>Biological and Environmental Technology Capstone</b>	1
<b>Total Semester Hours</b>			<b>16</b>	<b>Total Semester Hours</b>			<b>13</b>

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20



Fall 2018	BIO	101	General Biology	11
Fall 2018	GSC	109	General Physical Science I	10
Spring 2019	GSC	110	General Physical Science II	4
Spring 2019	BET	230	Air and Water Quality Assessment	1
Spring 2019	BET	210	Field Biology II	1
Spring 2019	BET	276	BET Capstone	1
Spring 2019	SSC	210	Ethics and the Environment	2
Fall 2019	BET	100	BET Seminar	5
Fall 2019	CHM	200	Environmental Chemistry	1
Fall 2019	BET	200	Field Biology I	1
Fall 2019	BET	240	Soil and Water Conservation	1
Fall 2019	GSC	109	General Physical Science I	7
Fall 2019	GSC	199	Special Topics in Physical Science	4
Fall 2019	GSC	199L	Special Topics in Physical Science Lab	4
Fall 2019	BET	270	Freshwater Fisheries	1

(b) If degree is not in area of current assignment, explain

Name: Bruce McClelland Rank: Adjunct Instructor

Check one:

Full-time\_\_\_\_ Part-time\_\_\_\_ Adjunct\_\_X\_\_ Graduate Asst.\_\_\_\_

Highest Degree Earned \_\_\_\_B.S.\_\_\_\_ Date Degree Received: May 2016

Conferred by: Frostburg State University

Area of Specialization: Wildlife Biology

Professional registration/licensure – None

Yrs. of employment at present institution – 3

Yrs. of employment in higher education – 4

Yrs. of related experience outside higher education – 5

Non-teaching experience

Biological Technician – Garrett College - 2 years

Lead Biological Technician – Garrett College - 3 years

Technician – Eastern WV CTC - 1 year

To determine compatibility of credentials with assignment:

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20

(a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semester		Course Number & Title		Enrollment	
Semester-Year	Department	Course #	Course Title	Enrollment	Team %
Spring 2018	BIO	102L	General Biology II Lab	10	0
Spring 2018	BET	160	Intro to GIS and Data Collection	4	0
Fall 2018	BET	200	Field Biology I	1	25%
Fall 2018	BET	240	Soil and Water Conservation	1	25%
Fall 2018	BIO	101L	General Biology I Lab	11	0
Fall 2018	GSC	109L	General Physical Science I Lab	10	0
Spring 2019	BET	210	Field Biology II	1	25%
Spring 2019	BET	160	Intro to GIS and Data Collection	4	
Spring 2019	GSC	110L	General Physical Science II Lab	4	0
Fall 2019	BET	200	Field Biology I	1	25%
Fall 2019	BET	160	Intro to GIS and Data Collection	3	0
Fall 2019	BET	270	Freshwater Fisheries	1	50%

(b) If degree is not in area of current assignment, explain

**Appendix III:** the headcount and full-time equivalency (FTE) enrollment along with the number of graduates for each year the program has been in existence.

A.

Academic Year	Headcount	FTE	Graduates
2017-2018	2	2	
2018-2019	2	2	1
2019-2020	5	4	

B. N/A

C. The one graduate has enrolled at Potomac State College to pursue a Bachelor of Science in Biology.

Approved by Assessment Committee: 05/26/20

Approved by LOT: 05/27/20

Approved by Cabinet: 06/02/20

Approved by BOG: 06/17/20