

## BOG Undergraduate Program Review

Spring 2022

- Chairs:** Louis Slimak - Provost's Office - WVU-Morgantown  
Evan Widders - Provost's Office - WVU-Morgantown
- Members:** Robynn Shannon - Provost's Office - WVU-Morgantown  
Shirley Robinson - Provost Office Support Staff - WVU-Morgantown  
Scott Davidson - Eberly - WVU-Morgantown  
Rebel Smith - Chambers - WVU-Morgantown  
John Navaratnam - Eberly - WVU-Morgantown  
Emily Corio - Media - WVU-Morgantown  
Steve Chhin - Davis - WVU-Morgantown  
Tina Antill-Keener - Health Sciences - WVU-Morgantown  
Ashley Simmons - Health Sciences - WVU-Morgantown  
Damien Clement - Honors - CPASS - WVU-Morgantown  
Srinivas Palanki - Statler - WVU-Morgantown  
Sandra Schwartz - Creative Arts - WVU-Morgantown  
Matthew Steele - Libraries - WVU-Morgantown  
Amy Weaver - WVU-Keyser  
Andrea Schafer - WVU-Keyser  
Md. Amin - WVU-Beckley

This year the Undergraduate Council reviewed 25 undergraduate programs including bachelor and associate degree programs at WVU-Morgantown, WVU Institute of Technology, and Potomac State College. The following pages consist of the recommendations and rationales for the review decisions for the programs listed below.

### WEST VIRGINIA UNIVERSITY

Mathematics, BA/BS, WVU Morgantown  
Communication Sciences and Disorders, BS, WVU Morgantown  
Design and Merchandising, BS, WVU Morgantown  
Health Informatics and information Management, BS, WVU Morgantown  
Information Systems, BS, WVU Morgantown  
Aerospace Engineering, BSAE, WVU Morgantown  
Aerospace Engineering, BSAE, WVU Morgantown  
Biomedical Engineering, BSBME, WVU Morgantown  
Chemical Engineering, BSCHE, WVU Morgantown  
Civil Engineering, BSCHE, WVU Morgantown  
Computer Science, BSCS, WVU Morgantown  
Electrical Engineering, BSEE, WVU Morgantown  
Industrial Engineering, BSIE, WVU Morgantown  
Mechanical Engineering, BSME, WVU Morgantown  
Mining Engineering, BSMINE, WVU Morgantown, WVU Morgantown  
Petroleum and Natural Gas Engineering, BSPNGE, WVU Morgantown  
Speech Pathology and Audiology, BS

WVU INSTITUTE OF TECHNOLOGY  
 Aviation Management, BS, WVUIT  
 Chemical Engineering, BSCHE, WVUIT  
 Civil Engineering, BSCE, WVUIT  
 Computer Engineering, BSCPE, WVUIT  
 Electrical Engineering, BSEE, WVUIT  
 Engineering Technology, BSET, WVUIT  
 Mathematics, BS, WVUIT  
 Mechanical Engineering, BSME, WVUIT

WVU POTOMAC STATE  
 Computer Information Systems, AAS, WVU Potomac State

WVU Board of Governor’s Program Review

Executive Summary – Academic Year 2021-2022

Undergraduate Programs

- 25 programs were reviewed
- 16 programs were continued at the current level of activity
- 9 programs were continued with specific action
  - 1 actions were assigned to assessment of student learning
  - 4 actions were assigned around adequate faculty
  - 1 action was assigned around adequate facilities
  - 1 action was assigned around enrollment and viability
- 2 programs were recommended for further development or discontinuance
- 2 majors in the BS Engineering Technology (WVUIT) were discontinued

Specific Actions Detail

Program	Follow-up actions recommended
AAS Computer Information Systems (PSC)	IT and lab facilities, adequate faculty
BS Aviation Management (WVUIT)	Further development or discontinuance
BS Chemical Engineering (WVUIT)	Enrollment
BS Computer Engineering (WVUIT)	Faculty adequacy, enrollment, completion
BS Computer Science (WVUIT)	Faculty adequacy
BS Design and Merchandising	Degree / major structure, accreditation alignment
BS Engineering Technology (WVUIT)	Further development
BS Mathematics (WVUIT)	Learning outcomes, evidence of assessment
BSCE Computer Engineering	Faculty adequacy

Follow-up Actions Assigned in Previous Years

- 9 follow-up actions were reviewed
- 7 programs resolved their issues
- 2 programs require further follow-up

Program	Follow-up action status
BA Art History	Resolved: adequate faculty
BA Communication Studies	Resolved: evidence of assessment

BA English	Resolved: evidence of assessment
BA Music	Not Resolved: evidence of assessment
BM Music	Not Resolved: evidence of assessment
BS immunology and Medical Microbiology	Resolved: Labs, faculty adequacy, learning outcomes, evidence of assessment
BSBAD Entrepreneurship and Innovation	Resolved: evidence of assessment
BSBAD Global Supply Chain Management	Resolved: evidence of assessment
BSBAD Marketing	Resolved: evidence of assessment

Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

B.A./B.S. Mathematics

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

This program aligns with WVU's mission, vision, and values by providing instruction to students across campus, in addition to those in the major. It also provides instruction in a core area of STEM knowledge. The program's seniors typically perform above average on nationally normed tests. Evidence is provided that shows graduates are well equipped to enter and complete graduate programs or to work in industry using their math expertise.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program acknowledges that several infrastructure issues exist: 1. Challenges around meeting the needs of students with accommodations, particularly with test taking 2. Inadequate classroom space 3. Limited to no resources to address cheating with online test taking Regarding the first item: After reading the program's report, I would like to know what evidence the program has that students with accommodations have a "significant and unfair advantage" when it comes to test taking. If there is evidence to support this, then no, the issue has not been resolved. A couple of questions that come to my mind: Can variables be changed on tests so that concepts stay the same but answers are different? Can the Office of Accessibility Services proctor tests for students who need accommodations during the normal test time so different tests are not even needed? Regarding item 2: No, the issue has not been adequately resolved. Enrollment numbers would need to be reduced for the program to access appropriate classrooms. Regarding item 3: No, the issue has not been adequately resolved. Again, like item #1, I'm not sure what evidence the program has of online cheating. But some ways to address this could include altering values on tests so that answers are different and limiting testing time online.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program is using "overloads" for faculty to address increased teaching demands, which the program indicates is a result of an increase in the number of remedial courses that are needed. But the program has also had to limit the number of post docs it supports, which also puts more pressure on faculty to teach. This solution, in my opinion, is a temporary fix. Faculty who teach have already been stretched during the pandemic, from having to work expeditiously to alter course design and expectations to addressing increased mental health issues among students; therefore, I do not think "overloads" is an adequate long-term solution. The program also states that a reduction in resources, in addition to the pandemic, has impacted faculty productivity. Specifically, the program states that the administration has reduced its revenue from its entrepreneurial activities (online courses, summer courses) by 50% and is providing less support for GAs. As a result, the program cut resources. Faculty no longer have phones in their offices. The program supports 40% fewer post docs.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment increased overall during the review period. The number of graduates per year is down from a high of 23 in 2017-18. That number was 17 in 2020-21; however, 17 was an improvement from the previous two years. The dip in graduates in 2018-19 and 2019-20 coincides with an increased in "time to completion." Since then, time to completion is lower at approximately 3.8 years. The program addressed high D/F/W rates in one course by changing the instructor, which the program reports has addressed the issue. The program also uses the results of a national ETS mathematics assessment exam to assess its program. The program discovered during this review timeframe that there were deficiencies in Modern Algebra. Two new faculty members who specialize in this subject have been hired, and student performance in this area has improved.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program uses exit surveys and national exams for assessment purposes. Additionally, through self-assessment, the program recently made changes to its overall curriculum by redesigning Areas of Emphasis and minors.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program is now part of the School for Mathematical and Data Sciences. It is working on rebranding efforts internally and externally. The program is in the process of forming an advisory committee for the school. Redesigning Areas of Emphasis and Minors has been completed during this review period.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*



### Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

*This question was not displayed to the respondent.*

Curriculum and Assessment

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

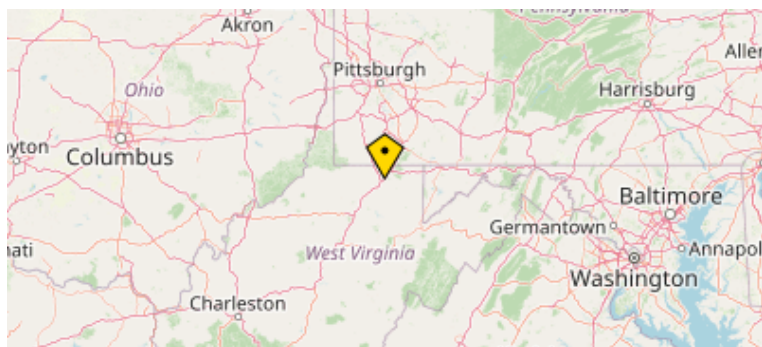
This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.595306396484](#), [-79.922897338867](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Communication Sciences and Disorders

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

This program aligns with WVU's vision to "bring needed and valued solutions to real-life problems within the pillars of education, healthcare and prosperity" through preparing students to pursue professions that assist individuals with communication disorders. Individuals living with communication disorders are at greater risk for unemployment, mental health issues, and not completing high school. Students and graduates connecting and assisting individuals with communication disorders advance the WVU mission of "leading transformation in West Virginia and the world through local, state and global engagement."

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate and accessible infrastructure resources. The program has not experienced significant issues with providing students with accommodations, scheduling classrooms, accessing technological infrastructure and support, or maintaining adequate physical infrastructure.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports having adequate faculty to meet the needs of the program. A summary of faculty credentials, composition, and productivity was not located within the program review or data files.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The number of students in the program has dramatically increased by 67% through Fall 2016-2020). (F16/77; F17/82; F18/ 79; F19/97; F20/129). The number of pre-communication sciences and disorder students increased too. Increase enrollment credited to better recruiting and removing a 45 student cap. Program continuance remains high ( 91-100%). Time to completion ranged from 3.5-4.1 throughout review period dates of fall 16-fall 20. Chemistry 111 was the one course identified as a high D/F course (12.77%; six students having to retake the course during the past three academic years). A recent curricular change no longer requires Chemistry 111. Instead, Physics 105 is required.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

- Yes  
 No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

- Yes  
 No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

- Yes  
 No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program recently (11/21) adopted new specific and measurable program learning outcomes. The program is updating the current assessment plan (student and alumni surveys) to reflect the recent changes. The program used previous assessment data and requirements of graduate programs to identify program weaknesses in math and certain science areas. The program used data to change math requirements, require physics, and a neuroanatomy course.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program revised the curriculum in 2017-2018 and required CSAD236: Language Science and CSAD234 and Anatomy and Physiology of the Speech and Hearing Mechanism to provide required foundational knowledge before the 300 level course. As previously mentioned, program learning outcomes were recently revised to align with experiential learning in the STEPS center and provide a systematic method for evaluating the program's effectiveness. Additionally, the program has adopted a philosophy CSD Signature Pedagogy to promote best practices for adult learning and clinical training. Lastly, the Division of Communication Sciences and Disorders is initiating a Student Advisory Board to include undergraduate and graduate students to provide feedback and insight into recruitment and retention of students. The council commends your work of enhancing your program learning outcomes and improving your assessment plan. A few recommendations would be sure to replace previous program learning outcomes on all website resources. Consider identifying your community of interest (ex: employers of graduates) and adding their feedback to the assessment plan.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

### Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

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Curriculum and Assessment

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Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

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Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

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Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
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particular prompts) with additional supporting evidence and/or data.

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4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

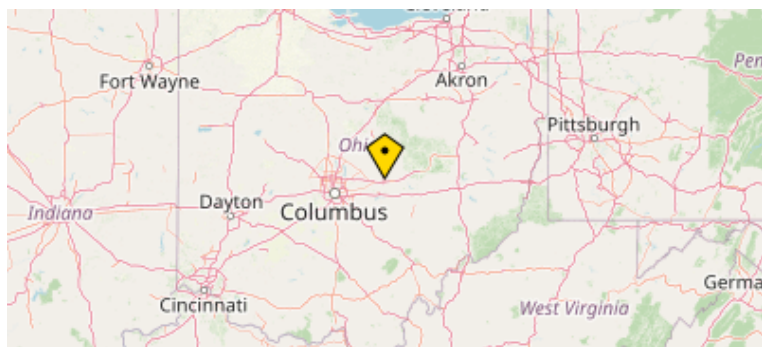
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#### Location Data

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**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

B.S. Health Informatics and Information Management

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

The program is actively seeking accreditation through CHIIM and participated in a site visit in November 2021. The site visit concluded the program has met 25 of 26 standards, with minor revisions needed. The program anticipates accreditation being announced March 2022.

Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS in Design and Merchandising

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The core purpose of the programs is to mentor students and to help individuals and communities prosper. Service to the community is foundational to their operations. The Interior Architecture (IA) program partners with stakeholders to develop and implement design solutions that serve communities. IA students designed a mobile, accessible COVID testing pod in spring of 2020. Fashion, Dress, and Merchandising (FDM) students helped develop masks and sewed masks during the early part of the pandemic. Design Studies (DS) students provided services to local and statewide business in need of guidance. There are several other examples of how these students are giving back to their community.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate faculty necessary to meet its mission.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

WVU ended the ACM which has impacted enrollment for FDM. The degree saw a 15.8% decrease in fall enrollment over the last three years (17-20). FDM is limited to 15 students per year due to studio space limitations. Graduation has decreased and is typically 4 yrs. There were high DFW rates in BUSA 201 and 202, but these are no longer required. The required grade in MATH 124/126 was changed from C- to D-. FDM 130 was a cause for concern due to being inconsistently taught by grad students and adjuncts. It is now being taught by a TAP. FDM 110 has a high DFW rate. It is open to anyone on campus. FDM students have been successful in securing competitive scholarships and internships. Approximately 60% of students secure a job offer in a fashion-relevant company by graduation. Students are taking advantage of the WVU Launch Lab and one has now established her own fashion line. After the FR year of IA, only 20 students can advance in the program. Graduates have increased 41%. Graduation typically occurs in 4 yrs. Courses with high DFW rates occur during the first year. Anecdotal surveys indicate 95-100% employment in the design field within a year of seeking employment. DS has seen steady growth. Graduation typically occurs in 4 yrs. There are few DFWs. Students have found jobs with many successful companies. Transfers may encounter difficulty with degree progression due to sequencing of courses and the fact that they are only offered once a year.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

All three use the word "understand." One LO for DS is "share work experience...and gain a greater understanding..." How is this measured? FDM has 25 LOs. Many begin with "understand."

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

IA designed a 5 yr assessment cycle - first completed in spring 2019. Formal assessments were not done March 2020-Spring 2021. Findings demonstrated the need for improved facilities and smoother learning transitions from class to class. A self assessment cycle was developed by FDM faculty in 2018, but a change in leadership, faculty changes, and a shift in focus to accreditation put this assessment in limbo. The NASAD accreditation self-study was completed and the TAPAC accreditation self-study is in process for FDM and DS and will be finished in spring 2022.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

IA revised its curriculum and LOs to align with CIDA standards with the intention of apply for CIDA accreditation. Students will graduate from this new curriculum in May of 2023. The program changed its name from Interior Design to Interior Architecture in fall of 2021. FDM made significant changes to design and merchandising tracks based on advisory board recommendations, peer institutions, and insights gained from student interns and their managers. Three new design studios and three new merchandising courses for the AoE were added. Minor options were changed. Three of the core courses began to be offered online to provide more flexibility. DS added three required visual design classes and two product elective classes.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Q7.3.  
Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

Continuance at the current level of activity

Continuance at the current level of activity with specific action

Continuance at a reduced level of activity

Identification of the program for further development



- Development of a cooperative program
- Discontinuance

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

By December 2022, the program will submit a follow-up report to the Undergraduate Council that: 1) Explains a plan to review the program's three majors, their learning outcomes, and their accrediting bodies and decide how to better position the Interior Architecture major by either making it a stand-alone program or moving it within another program in the division. Given the changes to all of the majors during the review period, it seems that this particular major is no longer aligned with the other two in terms of mission, curriculum, and accreditation.

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

## Location Data

**Location:** ([39.651992797852](#), [-79.944396972656](#))

**Source:** GeolP Estimation



Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program supports WVU's mission, vision, and values by providing accessible education via hyflex modality, supporting participation in interprofessional education, and requiring professional practice experience, all training students for direct connection to and support of citizens after graduation. The program serves as a resource to communities of practice by supporting nonprofit agencies and regional health integrated delivery systems. The program reports involvement with state COVID vaccine initiatives. Students support the region and state through a variety of local and national organization involvement.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program does not report significant issues with technological or physical infrastructure, ability to meet student accommodation needs, or technological support components.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program is delivered by four properly credentialed faculty members, including the program director. The program planned to utilize a few adjuncts to deliver one course each beginning fall 2021.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Program enrollment grew from 25 to 111 in just four years. According to data provided by the program, fall to fall retention is 83.7%. Program review data indicates continuance from F18-19 at 87% and another 87% continuance rate F19-F20. The inaugural graduating class of 2019 - 2020 consisted of 26 students, while the second graduating class was also 26 students. An expected 30 students will graduate in May 2022. Time to completion was 4.2 years. The program reports two high DFW rate courses. The program has articulated a plan to mitigate the potential challenges students face/report in these courses.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Program learning outcomes are measurable and action oriented, separated by domains applicable to the nature of the degree. Outcomes target knowledge and tasks as well as dispositions within the profession. Program assessment efforts are well documented. The program has identified learning outcomes targeting accreditation domains (7). Multiple measures are collected for each learning outcome. Measures are well detailed. Benchmarks of mastery have been met in nearly all assessments of outcomes. In the few that have not seen mastery, the program indicates steps toward revision that also align with requirements of the accreditation process.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program provides numerous specific examples of student success, all corroborated with reflections in detailed community outreach and plans for program development as present in a virtual binder. Program successes most notably include anticipated spring 2022 accreditation by the Commission on Accreditation for Health Informatics and Information Management. The program is supported by an Advisory Council comprised of critical stakeholders, and this structure has prompted the development of PPE opportunities and internships, a minor in Healthcare Data Analytics, and an upcoming Professional Coding Certificate program. The program has developed and implemented a hyflex delivery modality and finds classroom space in HSC to support the needs of the modality. Curriculum has been revised to meet virtual learning needs. The program is currently putting much focus marketing/recruiting, developing a robust recruitment plan. Pre pandemic recruitment through a variety of avenues had been successful. New opportunities include targeting 2 year markets, out-of-state students who do not have a face to face option with such a degree, honors college and live learn communities. The program is developing videos and social media campaigns to support recruitment efforts.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

### Q7.3

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

This program meets the Program of Excellence criteria for "distinction" as follows:

### Q7.4.

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.649795532227, -78.935699462891](#))

**Source:** GeolIP Estimation





Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Information Systems

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

Respondent did not answer questions Q2.4-Q2.10; therefore, it is currently unknown if the program is seeking specialized accreditation.

Q1.6. Provide a brief explanation of how the program is aligned with WVU's mission, vision, and values.

If the program has been out of alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The BS Information Systems program is in alignment with the mission, vision and values of WVU. This is evidenced through the programs committed excellence in teaching, research and diversity among faculty members. Their mission statement is published on the Department of Computer Science and Information Systems webpage.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

No issues identified at this time.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program identified 1 key faculty members that holds a relevant degree related to the area of instruction. This member has a PhD in Mathematics and 10 years of experience in teaching Computer Science and Information Systems courses. No issues identified in faculty adequacy, credentials, composition or productivity.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

A decline in enrollment was noted due to (1) Pandemic (2) Delay in adding education in Cybersecurity education program, and it is anticipated that enrollment in both programs will increase once the pandemic subsides. The program notes that 9 students currently enrolled plan to graduate in May of 2022 and 2 plan to graduate in December of 2022. Most IS students graduate in 4 years time. 3 course are noted as high DFW. The department is taking measures to correct this and are encouraging students to seek tutorial help early. Additionally, the IS program is working with the Math Dept to help students with difficulties in Math 150. Specific measures taken (1) Review of the course and delivery methods, implementation of newer and more appropriate textbook for the course. (2) Some students are less prepared in the fundamentals of computing and they have taken the measure of reviewing course and delivery methods and utilizing a new textbook for the course. Job placement noted to be 100%. This is evidenced by the employment of several graduates in industry specific jobs. While some students have participated in faculty research projects and presented their research at undergraduate research day at the capitol.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Minor concerns at times were noted, however their students are attaining the student outcomes of the program. Occasional lower scores for measuring instruments of performance indicators are due to poor analytic skills of the students. The department has continuously been working to improve the content and instructional tools that teaches students fundamentals needed to succeed. The department has adopted more modern textbooks for the sequence of courses to enhance learning. As a result of these actions, student learning and performance has improved immensely.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

In analyzing assessment data, the department attributed poor lower scores of measuring instruments to weak problem solving skills. Course content was added to improve students problem solving skills. In addition to course content, help sessions in problem solving were provided to the students. During the last 3 years students showed continuous improvement in their performance at an international competition.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

### Q7.3

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

### Q7.4.

This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.595306396484](#), [-79.922897338867](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BSAE Aerospace Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.



The Aerospace Engineering program seems to be aligned with WVU's mission, vision, and values as it places emphasis on the delivery of high-quality education, contributing to the advancement of society, stimulating the economic well-being of the state and engagement in technical innovation and knowledge creation. The only area where the program's mission appears to not be consistent with WVU's is the lack of reference of "creating a diverse and inclusive culture."

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports having adequate and accessible infrastructure resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports having adequate faculty to meet its mission regarding teaching, research, and service. More specifically, the program has tenure track faculty (10) and teaching faculty (1). There appears to be an imbalance between tenured track and the non tenure track individuals in the program. Faculty in the program appear to be productive due to the achievements reported which included fellowships ( 2 faculty members), earned NSF Career Awards (2 faculty members), and affiliations with NASA (3 faculty members) and government departments (DoD and DoE).

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment in the program throughout the reporting cycle continuously improved from Fall 2016 (306) to Fall 2020 (389). Average enrollment in the program throughout this time period was 345. The number of graduates generally increased albeit with some fluctuations. More specifically, the number of graduates in AY 17-18 and AY 19-20 respectively were 57 and 69 (the lows) with AY 18-19 and 20-21 reporting 78 and 81 graduates respectively. Time to degree completion generally decreased during the reporting period, with the shortest time to completion reported in AY 20-21 and the longest time period being in AY 16-17. Average time to completion was 4.59 years. It must be noted that the time to degree completion includes students who participated in internships, Co-ops and student abroad experiences which typically delay graduation for those students. The D/F/W courses reported were MAE 345 (25.24%), MAE 365 (32.02%), MAE 460 (45.14%), MAE 342 (42.31%) and MAE 423 (34.92%). With that being said, the department reported extensive measures to help students with these courses. With regard to student success the NASA Rover Challenge and the Rocketry Club competition have displayed national competitiveness via their top placement.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

- Yes  
 No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

- Yes  
 No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

- Yes  
 No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The Aerospace program is accredited by ABET and thus this body drives the assessment plan within the program. ABET recently changed its SLOs and the program complied with this transition by deploying a self assessment in which faculty members collected student portfolios with student produced evidence. ABET's assessment teams then reviewed the submitted materials, and in every SLO, the minimum performance expectation threshold was reached and exceeded. Thus, no corrective actions were necessary regarding SLOs.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

During the current review cycle, the program transitioned from old SLOs to SLOs as directed by ABET. This change required the review and adaptation of the syllabi of 40% of the courses in the program. More specifically it called for the redefinition of SLOs to match the new ABET criteria which involved the careful redesign of assignments and the emphasis selected topics which have evolved since the program was last reviewed. Another change entailed improvements in the curriculum to reflect the evolution of the market place demand. For e.g., a new seminar-course was added to prepare students to take the Engineering in Training Certificate test administered by the NCEES Board. This exam leads to Professional Engineering Licensure. Additional changes include getting feedback from undergraduate students in the form of surveys and focus group discussions with student professional clubs and chapters regarding program educational objectives; better documenting the spacecraft design experience; conducting the self assessment process once every two year; utilizing discretionary funds produced by research overhead and summer school to compensate for budget cuts; and implementing the use of a electronic repository to archive Assessment Material (portfolios, presentations, minutes of meetings, protocols and forms).

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

Yes

Maybe

No

Q7.3. Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

The program reports being ranked # 38 in the Nation by NSF in Research Expenditures by Combined Disciplines (Mechanical & Aerospace Engineering), with over\$15.76M in research expenditures in 2019. With that being said, the reviewers were curious as the "N" of this sample to be able to better contextualize the relative ranking of 38.The program reports being "nationally competitive in research" but the reviewers were not exactly sure what that meant? Perhaps some additional details could be provided so we can better evaluate the validity of that statement. Finally, the program also reports being ranked in the top 18 for "Best Value" BSAE Program and top 36 as "Most Popular" BSAE Program by College Factual. The reviewers would have liked some additional information regarding these rankings to be better contextualize and understand them. For e.g., how many programs were evaluated, what were the criteria for evaluation etc.

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

Faculty appear to be appropriately qualified and credentialed. Furthermore, evidence of faculty achievements include participation in fellowships ( 2 faculty members), earned NSF Career Awards (2 faculty members), and affiliations with NASA (3 faculty members) and government departments (DoD and DoE).

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

According to the information submitted 48% of the program's graduates participated in industrial rotation or internship. Of these, 35% were enrolled in the Dual Degree Program. Students were typically hired upon graduation or admitted to graduate schools. 46% of the program's graduates had a job offer by the time they graduated while 11% of graduates were admitted to a graduate program or professional school. Finally, 7% of the program's graduates had military commitments at the time of graduation. With regard to student success the NASA Rover Challenge and the Rocketry Club competition have displayed national competitiveness via their top placement.

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

The reviewers believe that this area is met due to the program's continued accreditation through ABET. Impressively, the program has been fully accredited for the last 6 cycles (36 years).

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.651992797852, -79.944396972656](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

B.S. Biomedical Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.



BSBME program trains students on cutting-edge research problems that impact society. The BSBME curriculum trains students with diverse engineering topics, which include biomaterials, biomechanics, biotransport, and bioinstrumentation. Externally (DOE, NSF, NIH, and private industry partners) funded research amounting to \$5 million in annual research expenditures, with expected growth in funding in coming years with the addition of six new research-active faculty members. Graduates of the program have been serving local and regional businesses. The program also focuses on current challenges in the development of efficient strategies in rehabilitation engineering and precision medicine that impact the aging population of WV. BSBME students also continue into the Ph.D. program at WVU and elsewhere.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports no significant infrastructure issues.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports adequate faculty, credentials, composition, and productivity.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment has steadily increased from 75 (Fall 16) to 134 (Fall 20). Program continuance has ranged from 88.9% (F15-F16) to a high of 96.3% (F18-F19). The number of graduates has also steadily increased from 16 (AY 16-17) to 36 (AY 20-21). Time to completion has been stable and ranged from 3.7 to 4.11 within the evaluation period. High D/F/W courses include BMEG 230 (16.67%) and BMEG 315 (12.07%) in the last 3 academic years. Also, noted: "some of the best students in the Statler College of Engineering and Mineral Resources choose to major in the BSBME program as evidenced by the number of honors students, Goldwater scholars, Foundation scholars and other scholarships recipients at the college and university levels. Students frequently win awards at the AIChE Annual Meeting and many students pursue medical school or graduate school."

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program provided supplemental documents as part of the ABET reaccreditation self-study. Included are assessment reports for student outcomes (by academic year), curriculum alignment efforts, and graduating senior exit surveys.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The department faculty have reviewed (Fall 2021) the entire Chemical Engineering undergraduate curriculum and have recommended some changes that include the addition of more contemporary material to the program which aligns with programs in competitor schools. These changes are to be implemented in Fall 2022.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.651992797852, -79.944396972656](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Civil Engineering - Morgantown

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The BSCE program aligns with the WVU mission, vision, and values by providing students with the education which develops graduates who excel at research and innovation and are committed to the work of bettering society's infrastructure at a local, state, global level. The program also promotes a culture of diversity and inclusion and requires graduates to hold paramount the safety, health, and welfare of the public.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program states that it has adequate and accessible infrastructure resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.



The program states that it has adequate faculty necessary to meet the mission of the program. Faculty have been praised by the institution and by student for the quality of teaching and advisement and have been awarded based on that quality. Faculty are also highly engaged in research and are recognized as scholars in their field through awards and external funding of research centers. The faculty is composed of 18 full-time tenure track members who devote 40% of their time for teaching. The program does state that COVID-19 and the resulting switch to online learning during 2020 negatively affected faculty teaching, research, and service.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The BSCE is active in enrollment and recruitment of students. In 2016 the program created a plan to improve course offerings to their majors; which included decreasing time conflicts, adding more summer offerings, moving courses on grid, and open more sections when needed. Since these changes were made, program continuance has gone up 5-8% and rests in the low 90% range. They also have steady graduates per year, headcount, and time to completion. The program notes three courses that have high DFWs and part of their program. Two of the courses are prereqs for CE classes that are taught by other programs (MAE and STAT). For the MAE course which has the highest number of DFW, the program has suggested offering their own section of the course. The program lists no resolution of the STAT course DFW. For CE 351, which does have the lowest number of DFWs, the program notes a change in the ways lecture is presented that has increased student performance since 2018. The program notes several success and first place finishes their students have achieved and regional and national competitions throughout the course of the review cycle.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has an assessment plan and evidence of assessment for the review cycle. The program evaluates teaching and LOs using multiple methods; Student performance and Student, Alumni, and Employee surveys. Student performance is measured on individual assignments in courses measured against a set threshold of 80%. Survey performance was measured on a Likert scale of 1-5. The program uses the data that is collected in their Continuous Program Improvement (CPI) especially in course where the student performance for an LO was not meeting the 80% threshold. The program notes three course that were evaluated and reconfigured because of this. There are no issues with the assessment plan or for the steps the program take to improve the courses and curriculum.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

During the review cycle the program has taken steps to improve the way that their courses and curriculum are presented to students. They have made improvements to how courses are offered which has increased the program continuance. They have a strong assessment plan that has allowed for adjustments to how courses are taught and maximize student's ability to meet the learning objectives.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

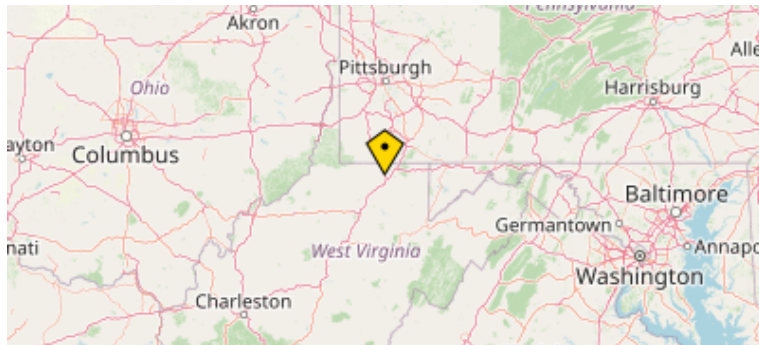
This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.609100341797](#), [-79.983001708984](#))

**Source:** GeolIP Estimation



## Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Computer Engineering

If the program is specially accredited, is it in good standing with its accrediting body?

Yes

No

Not specially accredited; no national accrediting body

Not specially accredited; there is a national accrediting body

Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out of alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The Computer Engineering program objectives align with WVU's mission/values through the production of successful graduates who apply their knowledge and skills to achieve success in industry, research, government service, academia, etc. to contribute to the betterment of society. Graduates from this program are expected to achieve success and proficiency in their careers and be recognized as leaders within five years after graduation.

Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program appears to have adequate and accessible infrastructure according to program report.

Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate infrastructure, however, they are struggling to fill gaps left by long time faculty members who have retired. They are currently searching for up to five new faculty in the 2021-2022 academic year. This was also noted as an area of weakness in the ABET visit in September 2021.

Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment Trends-Enrollment has been consistent in the program over the course of the review with an increased number of students enrolled in 2020 and 2021. Number of Graduates-Graduation numbers have been consistent in the program over the course of the review period. There was a surge in rates in the 2018-2019 and 2019-2020 academic years. Time to Completion-Time for completion ranges over the review period from 4.19 to 4.37. High D/F/W courses-The program identified three courses with a high D/F/W rate: EE 327, EE 355, and Math 375. Program is working to address issues in these courses and cooperate with Math faculty to ensure consistent coverage of topics. Student Success-Program self study shows high levels of satisfaction. Average salary for graduated \$73,438. Placement and salary data collected annually. Undergraduate research opportunities are available for students. WVU EcoCAR team placed 3rd out of a group of teams from 12 prominent universities in 2021.

Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.



Program has an assessment plan in place with course mapping and dates in place. The assessment measures showed data collected and evidence of analysis of the data to make changes in the program as needed "closing the loop". Assessment data was used over the review period to make program changes, purchase new equipment, strengthen areas of curriculum, prerequisites, and add a focus area on ethics and professionalism. It appears that the faculty are doing a great job of using their assessment feedback to implement necessary changes.

Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program improved their assessment data over this review period to help make necessary changes to the program by adding courses in Ethics and Professionalism and dropping Macroeconomics. The LCSEE Learning Center was created to provide tutoring to students as a department initiative based on student feedback. The program also reduced the total credit hours for the degree from 130 to 126. This change was approved by the WVU Faculty Senate and implemented in the 2020-2021 academic year.

Is the program seeking the Program of Excellence distinction?

Yes

No

What is the recommendation for this program?

Continuance at the current level of activity

Continuance at the current level of activity with specific action

Continuance at a reduced level of activity

Identification of the program for further development

Development of a cooperative program

Discontinuance

Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end

of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

By December 2022, the program will submit a follow-up report to the Undergraduate Council that: 1) Addresses if it has been successful in hiring any or all of the five faculty it was searching for at the time of this review. 2) Present a plan to retain and develop its faculty.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS in Computer Science

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The Program Educational Objective (PEO) is to produce graduates who will apply their knowledge and skills to achieve success in their careers. They are expected to contribute to the betterment of society. Both the PEO and WVU'S mission statement emphasize educational preparation, excellence, and the improvement of society.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate faculty necessary to meet their mission and none are qualified by other means than their academic credentials.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment has increased since 2019 from 188 to 220 in fall of 2021. Retention has been 74-83%, with increases in the last two years. Graduation rates have increased from 46 in 18-19 to 53 in 20-21. Average time to completion is 4 years. Three courses have high DFW rates: CPE 271 = 31.13%, CS 210 = 36.54%, and CS 320 = 48.28%. In fall of 2019, the department introduced the Lane Learning Center which provides tutoring for introductory courses such as CPE 271. In CS 210, the class was expanded to include an additional lab section in addition to the 3 hrs of lecture. CS 320 was renumbered from CS 220 so that students take this course later in their career and after additional math courses. Average starting salary for graduates is \$65,000. Students are able to participate in research and competition teams. The WVU EcoCAR team placed 3rd out of 12 in 2021.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The curriculum committee made a number of changes based on student performance and feedback in CS 450, CS 350, CS 453. And based on interest from students, a separate degree program and an AoE in cybersecurity were created. A 1-cr hr class in ethics and professionalism was created.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

CS 450 was increased from 3 to 4 cr hrs. The addition of CSEE 380 Engineering Professionalism Seminar has strengthened student attainment of Outcomes 4 and 7.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or



particular prompts) with additional supporting evidence and/or data.

- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.595306396484](#), [-79.922897338867](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS in Electrical Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program is aligned with WVU's mission, vision, and values. The Bachelor of Science in Electrical Engineering (BSEE) degree program focuses primarily on advancing education and generating a workforce that is capable of applying their knowledge and skills in an important strategic area that serves the interests of industry, government service, and academia both within the state of West Virginia and nationally.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The BS in Electrical Engineering program reports adequate physical and technological infrastructure.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The Excel data file associated with this program did not have any further statistics associated with the faculty. Information had to be gleaned from the large self-study document (~469 pages) that was prepared for in relation to the accreditation process. Unfortunately, faculty characteristics are provided for the full Department of Computer Science and Electrical Engineering which administers 5 undergraduate degree programs including Electrical Engineering. The faculty have the necessary credentials to teach the courses in their curriculum. The general appointment split for most faculty in this department is 40% teaching and 40% research. There is a total of 25 tenure track faculty members in this department but is unclear initially the number housed in the BSEE program. Some of faculty in the department are cross-listed across the 5 undergraduate programs. Faculty with a 75% or more appointment in BSEE leads to a count of 13 faculty members. There is no detailed information available for faculty productivity with regards to research.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The average enrollment over the 5 years reported from Fall 2016 to Fall 2020 was 125 students. With approximately 13 faculty members mainly associated with the BSEE program, this results in approximately a student:faculty ratio of 9.6. The average program continuance level was reasonably high at 82.1% over the 5 year reporting period from Fall 2015-Fall 2020. The average graduation rate for the 5-year reporting period of AY 16-17 to AY 20-21 was 41.8 students. The average time to completion is 4.2 years over the 5-year reporting period of AY 16-17 to AY 20-21.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Their assessment approach is based primarily on faculty measuring student performance on assignments and exams embedded within required courses which in turn is tied to meeting 7 student outcomes related to themes of analysis, design, communication, professional responsibility, teamwork, experimental methods, and learning. The instructor categorizes student performance into three levels: "Meets Expectations", "Exceeds Expectation" or "Does Not Meet Expectations". The program also conducts a survey of graduating senior with questions associated with the same 7 student outcomes. Furthermore, there is a curriculum committee in this program that meets to examine the assessment products and examine whether student outcomes are being met. Assessment data is then used to tailor changes in current courses, creation of new courses, or elimination of courses in the program curriculum as well as changes and laboratory equipment. While it is stated and eluded to that the curriculum committee makes use of other assessment data in their deliberations, the other types of data are not expanded further. The BSEE program is in the process of addressing weaknesses identified during the accreditation process including issues raised around effective implementation of assessment practices.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

Many of the improvements to the program are made in response to the assessment of student outcomes in the required courses. In addition, some of the program's facility improvements have been based on the generous support of donations from former alumni. The program has fine tuned its curriculum and the approved changes were implemented for the 2020-21 catalog year. The learning center focused on tutoring of sophomore level courses has been either initiated or has been completed. The program primarily focused on recent improvements and did not provide a detailed plan for future improvements.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*  
Provide an explanation of what follow up action(s) should be taken by the program, what response is

Q8.3.  
*This question was not displayed to the respondent.*  
expected to the Council (if any), and when.

Provide a rationale explaining the recommendation for discontinuance.

Q8.4.  
*This question was not displayed to the respondent.*

Q9.1.  
This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** [\(39.651992797852, -79.944396972656\)](#)

**Source:** GeolIP Estimation





Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BSIE Industrial Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program provides access and opportunity to students in West Virginia and the surrounding region an trains students to develop unique skills and knowledge to successfully address "Process Improvement" challenges which are central to the growth of any business, allowing graduates to contribute to the prosperity of the state and region.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Yes, the program's infrastructure resources are adequate and accessible. The program does not identify any inadequacies, and no program shortcomings were identified in the 2021 ABET accreditation visit.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program claims it has adequate faculty, that nothing has happened to have significant negative effects on productivity, and that no faculty are qualified by means other than their academic credentials. No program shortcomings were identified in the 2021 ABET accreditation visit.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment and time to completion have stayed fairly steady. Four upper-level courses have DFW rates above 30%. One of these courses has been replaced with a different (more appropriate) course. Appropriate strategies for improving high DFW rates are described; the program should be encouraged to evaluate these strategies for effectiveness regularly and make adjustments as indicated by assessment results. The program notes that the field has grown dramatically for women but they do not comment on whether program has shown a corresponding increase in enrollment of women.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Very detailed information about assessment methods and timeline, alignment of assessments with program outcomes and goals, and steps taken towards improvement based on assessment results is provided. No program shortcomings were identified in the 2021 ABET accreditation visit.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program has a well-established systematic process for reviewing assessment data annually and making recommendations based on that review. Detailed information is provided for each course in the major on improvements that were made based on assessment results and/or planned improvements.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

Provide an explanation of what follow-up action(s) should be taken by the program, what response is

Q8.3.

expected to the Council (if any), and when.

Provide a rationale explaining the recommendation for discontinuance.

Q8.4.

This question was not displayed to the respondent.

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.609100341797](#), [-79.983001708984](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BSME Mechanical Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.



The Mechanical Engineering program seems to be aligned with WVU's mission, vision, and values as it places emphasis on the delivery of high-quality education, contributing to the advancement of society, stimulating the economic well-being of the state and engagement in technical innovation and knowledge creation. The only area where the program's mission appears to not be consistent with WVU's is the lack of reference of "creating a diverse and inclusive culture."

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports having adequate and accessible infrastructure resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports having adequate faculty to meet its mission regarding teaching, research, and service. More specifically, the program has tenure track faculty (10) and teaching faculty (1). There appears to be an imbalance between tenured track and the non tenure track individuals in the program. Faculty in the program appear to be productive due to the achievements reported which included fellowships (3), being named fellows (4) earned NSF Career Awards (2), and affiliations with NASA (3 faculty members) and government departments (DoD and DoE).

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment in the program throughout the reporting cycle has been relatively stable from Fall 2017 (682) to Fall 2020 (624). Average enrollment in the program throughout this time period was 640. The number of graduates remained relatively consistent albeit with some fluctuations. More specifically, the number of graduates in AY 16-17 and AY 20-21 respectively were 158 and 156 with AY 17-18, AY 18-19 and 19-20 reporting 171, 212, and 170 graduates respectively. Time to degree completion generally increased during the reporting period, with the shortest time to completion reported in AY 17-18 and the longest time period being in AY 20-21. Average time to completion was 4.42 years. It must be noted that the time to degree completion includes students who participated in internships, Co-ops and student abroad experiences which typically delay graduation for those students. The D/F/W courses reported were MAE 460 (48.15%), MAE 423 (42.11%), MAE 321 (45.76%), MAE 342 (50.0%) and MAE 423 (25.45%). With that being said, the department reported extensive measures to help students with these courses. With regard to student success the NASA Rover Challenge and the EcoCAR Project have displayed national competitiveness via their top placement.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The Mechanical Engineering program is accredited by ABET and thus this body drives the assessment plan within the program. ABET recently changed its SLOs and the program complied with this transition by deploying a self assessment in which faculty members collected student portfolios with student produced evidence. ABET's assessment teams then reviewed the submitted materials, and in every SLO, the minimum performance expectation threshold was reached and exceeded. Thus, no corrective actions were necessary regarding SLOs.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

During the current review cycle, the program transitioned from old SLOs to SLOs as directed by ABET. This change required the review and adaptation of the syllabi of 40% of the courses in the program. More specifically it called for the redefinition of SLOs to match the new ABET criteria which involved the careful redesign of assignments and the emphasis selected topics which have evolved since the program was last reviewed. Another change was the implementation of a electronic repository to archive Assessment Material (portfolios, presentations, minutes of meetings, protocols and forms). Additionally, the program now conducts a survey with undergraduate students to get feedback and make them aware of our Program Educational Objectives. Other changes involved improvements on the curriculum which reflects both the self assessment process and the evolution of the market place demand to address new topics in several courses. For example, the program now offers a new seminar-course to prepare students to take the Engineering in Training Certificate test (called Fundamentals of Engineering Test) administered by the NCEES Board.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

Yes

Maybe

No

Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

The program reports being ranked # 24 in the Nation by NSF in Research Expenditures by Combined Disciplines (Mechanical & Aerospace Engineering), with over \$15.61M in research expenditures in 2019. With that being said, the reviewers were curious as to the "N" of this sample to be able to better contextualize the relative ranking of 24. The program reports being "nationally competitive in research" but the reviewers were not exactly sure what that meant? Perhaps some additional details could be provided so we can better evaluate the validity of that statement. Finally, the program also reports being ranked in the top 24% for "Most Popular" BSME Program and top 34 as "Best Value BSME Program by College Factual. The reviewers would have liked some additional information regarding these rankings to be better contextualized and understand them. For e.g., how many programs were evaluated, what were the criteria for evaluation etc.

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

Faculty appear to be appropriately qualified and credentialed. Furthermore, evidence of faculty achievements include participation in fellowships (3), fellows (4), earned NSF Career Awards (2), and affiliations with NASA (3) and government departments (DoD and DoE).

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

According to the information submitted 54% of the program's graduates participated in industrial rotation or internship. Students were typically hired upon graduation or admitted to graduate schools. 30% of the program's graduates had a job offer by the time they graduated while 12% of graduates were admitted to a graduate program or professional school. Finally, 8% of the program's graduates had military commitments at the time of graduation. With regard to student success the NASA Rover Challenge and the EcoCAR Project competition have displayed national competitiveness via their top placement.

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

The reviewers believe that this area is met due to the program's continued accreditation through ABET. Impressively, the program has been fully accredited for the last 6 cycles (36 years).

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuance

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

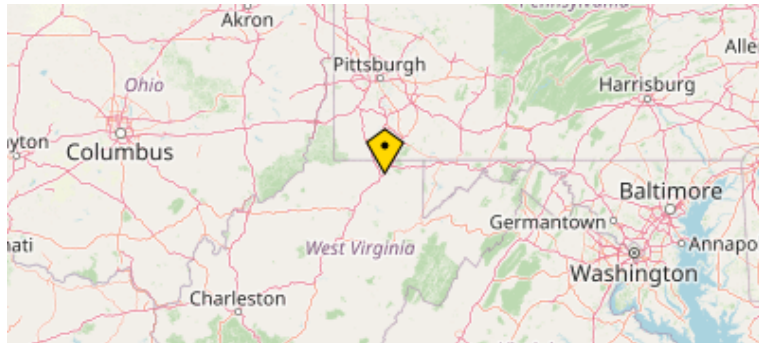
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Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.595306396484, -79.922897338867](#))

**Source:** GeoIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Mining Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.



This program aligns with WVU's mission of embracing a culture of diversity and inclusion, preparing graduates to meet the operational and engineering challenges of the mining industry, serving as leaders of professional organizations, and advancing education and research to discover and develop innovative uses of coal and other mineral resources.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has not experienced significant issues with providing students with accommodations, scheduling classrooms, accessing technological infrastructure and support, or maintaining adequate physical infrastructure.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Several faculty retired in 2017, and new junior faculty joined the department. Per the catalog website, all faculty have a PhD. The program reports change in leadership, and faculty composition is advancing growth and opportunities for students. For example, more students are gaining internships and employment in the metal and non-metal sectors of the mining industry. Faculty are involved in research and serve in leadership roles for state professional organizations.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment and graduation rates have decreased over the review period. For example, the graduation number in 2017 was 24, 13 graduates in 2021. Contributing factors associated with the reduced numbers include the impact of COVID, cancellation of Academic Common Market, limited opportunity to recruit from the first-year engineering class, lack of public knowledge regarding mining, and negative perception of mining. Steps to address these issues include increasing scholarship opportunities, especially for out-of-state students, seeking collaboration with international partners, exploring options with tech schools, returning to presenting the program to first-year students engineering students, and promoting accolades and honors of students in the program. The program is shifting to prepare students for coal mining and non-metal and metal mineral operations. The program has established multidisciplinary collaborations and plans to invite more metal and non-metal mining companies to campus for informational and recruitment sessions. The Department has secured \$2.9 million in endowed scholarships, and students have received over \$1000,00 of external scholarships. The program has identified a goal to increase female enrollment to at least 40% over the next five years. The student chapter of Women in mining is active in recruitment activity. Three-course are identified as having high D/F. Faculty are actively seeking methods to assist students.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program uses three methods to assess student outcomes: student course assessment survey, student exit surveys, instructor outcome assessment. The assessment method has remained unchanged, but assessment data were updated to reflect newly adopted student outcomes in fall 2019. The program has an advisory/visiting committee, including alumni and other industry leaders who meet annually and provide input. Formal and informal data from students, faculty, and stakeholders are used for continuous improvement. The assessment plan includes a summary list of proposed improvements, who initiated the proposed improvement or change, and the outcome of the proposal for each academic year. The program appropriately uses assessment data to resolve issues and inform continuous improvement.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

Significant changes occurred in 2017. Several faculty retired and new junior faculty joined the department. During this time, the curriculum was reviewed and updated to reflect changes in the mining industry, including expanding to metal and non-metal sectors. The council commends the leaders and students of this program. Diversifying the curriculum to include coal and other minerals is essential to ensure we have safe and knowledgeable individuals to promote our state and world infrastructure. We applaud your contributions to your students' success in receiving many national accolades and honors and graduates securing a 100% job placement rate. It may be beneficial to connect with WVU career services to assist in highlighting your program and recruiting students.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

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Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

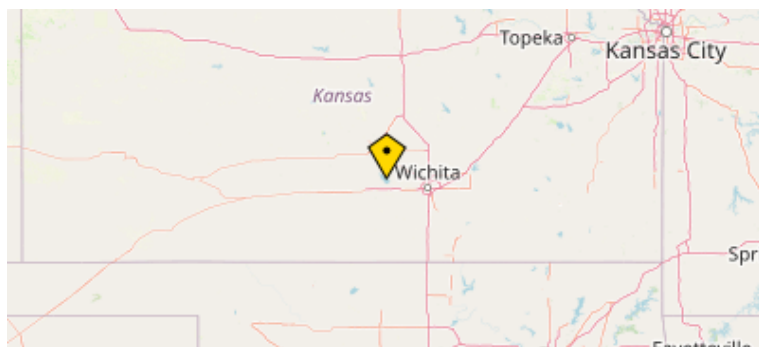
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Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** [\(37.751007080078, -97.821998596191\)](#)

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS in Petroleum and Natural Gas Engineering

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The Department of Petroleum and Natural Gas Engineering continuously aims to align itself with the mission of WVU; to deliver high quality education, excel in discovery and innovation, model a culture of diversity and inclusion, and build pathways for the exchange of knowledge and opportunity between the state, the nation, and the world. The BSPNGE program exemplifies alignment with WVU's mission, vision and values. Their mission statement is published on the [pnge.statler.wvu.edu](http://pnge.statler.wvu.edu) webpage for the public to see.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The BSPNGE did not identify any significant issues with accessible infrastructure resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.



The BSNGE program has adequate faculty necessary to meet the mission of the program. The PNGE undergraduate program experienced a high influx of students in 2015 causing the undergraduate enrollment to exceed beyond our capacity for a number of years and drained their resources. The total number of faculty during that period consisted of five or six including new faculty members, who had limited teaching load for the first three years of their contract. Furthermore, two of their faculty members have been on approved family and medical leaves recently. Finally, COVID-19 pandemic changed everything for the BSPNGE program. The strain on their department, caused by all these factors, affected the faculty workload as well as the research productivity. The PNGE undergraduate program enrollment has declined from its peak in 2015 and now it is closer to their "actual" capacity. It was noted that the impact of the COVID-19 has been mitigated to a large extent; however, steps taken to mitigate these issues were not noted.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment was negatively impacted during the past several years due to conditions in oil and gas industry. Several hardships in the industry were noted including COVID-19 preventing some international students to enter the BSPNGE program during the 2020-21 academic year. The ratio of the number of graduates to enrollment varies from 0.31 to 0.39 and on average it is 0.36 for the past five years. It should be noted that the the freshman are enrolled in Statler College Fundamental of Engineering Program and are not included in enrollment figures for their program. Therefore, the ratio of the number of graduates to enrollment is well within the expected range for their program. The "Time to Completion" varies from 4.18 to 4.27 years and on average it is 4.21 years for the past five years which is well within expected range for their program. The courses with high DFW are academically rigorous courses which require strong backgrounds in mathematics and physics as well as significant effort by the students. PNGE graduates are well-prepared to enter the workforce as petroleum and natural gas engineers and are in demand enjoying some of the highest salaries of all graduates. Many elect to continue their education at the graduate level. Many of the international students came with sponsorships from oil & gas companies such as Saudi Aramco, ADNOC, Kuwait Oil Company and/or government entities to cover the cost of their education at WVU. These students immediately secure positions

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Actions to improve the program based on program outcome assessment indicates that the BSPNGE program is taking the necessary steps to facilitate program outcomes, despite the transition to online course format due to COVID19. The revision of student outcomes in 2019 required additional action during 2019-2021 to incorporate "Complex Engineering Problems" relative to Student Outcome 1 in courses listed. Switching to online teaching, due to COVID-19 pandemic, in 2020-21 has obscured the assessment results relative to Student Outcome 1 as well as other Student Outcomes. The following actions have proposed to improve the outcomes: 1. The "Complex Engineering Problems" relative to Student Outcome 1 will be further emphasized in courses listed in Table 4-3. 2. The design concepts relative to Student Outcome 2 will be further emphasized in courses.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The PNGE Department has established excellent relationships with key industry contacts and have raised millions of dollars in donations and in-kind contributions from companies such as Schlumberger, Halliburton, Dominion Energy, Berkshire-Hathaway Energy, Chevron, and others. They have been working with their Advisory Committee for financing the development a Midstream Engineering program to train students in this critical component of the oil and gas industry that has become increasingly more significant in the region with the influx of shale development, and the shift in traditional supply and demand markets for natural gas. As of today, no other university in the country offers such a program. They are working with their partners in the oil and gas industry to start the new curriculum initially as a professional elective to undergraduate students and/or certificate program. They plan to develop a stand-alone degree programs in midstream engineering. The PNGE advisory committee is very much in favor of this program as well as industry partners such as Berkshire Hathaway Energy, Antero Resources, and TransCanada. It promises to attract many students to WVU and their department.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
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3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Provide a rationale explaining the recommendation for discontinuance.

Q8.4.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.651992797852](#), [-79.944396972656](#))

**Source:** GeolIP Estimation



## Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

AAS Computer Information Systems - PSC

If the program is specially accredited, is it in good standing with its accrediting body?

Yes

No

Not specially accredited; no national accrediting body

Not specially accredited; there is a national accrediting body

Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out of alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The AAS in Computer Information Systems at Potomac State program aligns with the WVU mission, vision, and values by fostering an environment of learning and advisement that is inclusive, student-focused, and personalized. This develops a culture where students in the state of West Virginia can develop practical work experience that is applicable to real-life problems and experience in the business world.

Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program notes that there are significant issues with adequate and accessible infrastructure resources. The main issue, commonly discussed in program review, is access to lab space and equipment necessary for students in the program. This is compounded by the high-cost of operating hardware and software that are relevant to the program as well as inadequate access to internet for students in the program. This issue was also discussed in the previous program. The program notes how this inadequacy affects both students in the program for completing lab exercises and meeting learning outcomes as well as recruitment of new students who are coming from high schools and technical teaching centers that provide better equipment and spaces. In lieu of developing more space for a physical lab, the program has proposed an investment in a virtual cloud-based lab which students could access necessary programs which would alleviate the need for an updated lab. The proposition would be adequate but not perfect solution and would require more resources from students in the program. It is unclear if the proposition has been submitted to the university at this time. At this time the issue has not been adequately resolved.

Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program notes that they do not have an adequate number of faculty. Currently there is one tenure-track faculty member that teaches an overloaded course and advisement schedule. This member of the program shows no deficiencies in credentials or productivity. There was second-tenure track faculty member that was hired in 2018 but left in 2020. There was a visiting faculty member that was hired in Spring of 2021. It is unclear if that faculty member was retained. The program is currently conducting a search for a second tenure-track member. The issue of faculty composition has not been adequately resolved.

Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

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Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program does not have data before Fall 2017, but since that point has shown steady increases in headcounts and graduation with a time to completion hovering between 2 and 2.5 years. In the review, the program discusses a solid relationship with Enrollment Services and recruitment efforts by faculty. The program did not provide a reflection on relevant trends on graduation data (Q8.7) but their numbers do not look abnormal. The program does note a spike in DFW rates from Spr2020 to Spr2021. Before Spr2021 their numbers looked normal. But in Spr2021 over half of their CIS 245 class withdrew or failed. The program notes that this could be a product of a switch to online learning due to COVID-19. To address the issue the program has included new learning techniques and active learning exercises. While this could be just a function of the change to online learning it is a matter where the issue is not resolved and follow-up data on the DFW for the course could be provided to the council. The program notes anecdotally several success with graduates finding employment and current students acquiring internship positions.

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Are the program's learning outcomes accurately published in the Catalog?

Yes

No

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Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

---

Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes



No

Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has worked with Assessment Coordinator at PSC to develop a working assessment plan complete with a review schedule of SLOs and curriculum map. Most assessment activities are focused direct measures on exam outcomes. And all outcomes include plans based on their findings and discussion about the findings. The reviewer found that there is no issue to resolve. The program notes that in their assessment they have found matters that they are addressing going forward, such as "skill loss" for students enter the BAS program, and students who do not take the certification program. The program notes changes to be made. Neither issue looks to be a matter that would need follow-up in council. The program discusses changes made through and to assessment during the review in their assessment workbook attachment but did not summarize their finding in Q9.6.

Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

Improvements since the last program review include the creation and implementation of an assessment plan which includes; review cycles for SLOs, curriculum mapping, and plans based on findings. The program has also added a virtual lab that students may use to access necessary software; as well as added software to physical computers in lab AC304. The program has also begun a search for a second tenure-track faculty member that would alleviate the workload of the current faculty.

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Is the program seeking the Program of Excellence distinction?

Yes

No

What is the recommendation for this program?

Continuance at the current level of activity

Continuance at the current level of activity with specific action

Continuance at a reduced level of activity

Identification of the program for further development

Development of a cooperative program

Discontinuance

Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

By December of 2022, submit a follow-up report that does the following: 1. Addresses how the program will improve its IT infrastructure and lab space, including the lack of necessary software and reliable internet access. 2. Addresses how the program will improve the adequacy and stability of dedicated faculty for the program. We also recommend informally that the program work to document how it uses its assessment of learning to make program changes and improvements.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Aviation Management (WVUT)

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

No information provided

Q1.6. Provide a brief explanation of how the program is aligned with WVU's mission, vision, and values.

If the program has been out of alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program highlights two particular areas of how it aligns with WVU's values. Service: There is a need for a program to allow students to learn to fly near their homes and still pursue a college education, saving them tens of thousands of dollars. This opens the door to an aviation career to students that cannot afford the large collegiate aviation programs. Accountability: Few careers require more accountability than that of a professional pilot. Both the Tech academic courses and the flight training experience teach accountability. Although the program didn't specifically reference WVU's mission or vision, it is in alignment and fulfills a need in the state of WV.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports no significant issues. Note: This is the program's first-ever BOG review. The program did report a problem with financial aid for flight training when the program first started. This was the result of one [unknown] person mishandling an agreement with a partner flight school. Despite the late approval for financial aid for flight training for students, the program reports that applications have remained steady and registration has increased for AY 21-22.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports having adequate faculty.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

AY 15-16 was prior to the program's approval. Data are AY16-17 to present. Enrollment has increased since the program started: 1, 2, 3, 6 students  
Number of graduates has been 0 until AY 20-21, at which time 1 student graduated. This trend is not surprising given when students began in the program. Time to completion data are incomplete given that only 1 student has graduated from the program to-date. High D/F/W courses are AVIA 484 (4 AM majors) and FIN 321 (2 AM majors) - although the program reports no high D/F/W courses... Student success - The program reports two graduates (though only 1 in the data file?), both are employed as professional pilots and instructors and are progressing toward an airline career.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

Graduates will obtain the FAA certifications as outlined in the program in a timely manner. (I think whatever the timeline is should be specified....but this still isn't a learning outcome. Applying \_\_, \_\_, and \_\_ in order to obtain FAA certifications would be closer to a PLO.) Graduates will have a cumulative pass rate on FAA practical tests (flight tests) of 80% or above. Individual students will repeat no more than two FAA practical tests during the course of the program. (These look like program policies and academic standards, not PLOs). Graduates will develop a thorough knowledge of aeronautical theories, practices, regulations, and procedures. (This is not observable or measurable. The knowledge needs to be applied in some way.) Graduates will develop the ability to think critically and communicate effectively. (Critical thinking is not an observable or measurable outcome. How will it be demonstrated? Same with effective communication.)

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

- Yes
- No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

There doesn't seem to be an assessment plan. In lieu of a curriculum map, the program pasted curriculum, program, and major requirements (from the catalog) and reported the (increasing) enrollment trend.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

With the initial unavailability of financial aid for flight training and the loss of their primary flight training provider, the program was forced to pivot to a "pick your own flight school" model. While this model is more limiting in some ways, (e.g., most flight schools do not have housing available), it does allow for a wider geographic reach and the ability to work with many more schools. WVU Tech is currently participating in talks with New River Community and Technical College regarding the viability of a collaborative 2+2 program with NRCTC's pending Aviation Maintenance program which will be offered at the Raleigh County Memorial Airport. The Tech Aviation Management program could easily add a Maintenance Technician track to accommodate such a program.

Q7.1. Is the program seeking the Program of Excellence distinction?

- Yes
- No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Q7.3.  
Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuance at the current level of activity
- Continuance at the current level of activity with specific action
- Continuance at a reduced level of activity
- Identification of the program for further development



- Development of a cooperative program
- Discontinuance

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

The Undergraduate Council recommends that the Aviation Management program either: 1. Be given the appropriate resources it needs to be delivered, including dedicated faculty, and easier access to flight training for students; or 2. Be discontinued. Should WVUIT choose to continue the program, it will need to submit a follow-up report in December of 2022 that: 1. Explains the allocation of faculty to the program, 2. Details how students will earn their flight training, 3. Revises the program's student learning outcomes. By December 2023, the program will need to demonstrate that it has: 1. Created a curriculum map based upon the new student learning outcomes, 2. Has implemented assessment of learning based on the curriculum map and new learning outcomes.

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

**Location Data**

**Location:** ([39.652, -79.9444](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Chemical Engineering WVU Tech

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program aligns with the university's mission. It is committed to educating students who can use technological know-how to create a better future for West Virginia and the world. Students leave the program with the ability to solve real-life problems.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate resources at the present time.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The faculty have the appropriate credentials and remain active professionally. They regularly attend conferences and publish research in their field.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment has trended downward during the period under review from 42 (2016) to 22 undergraduates (2019 and 2020). To their credit, the department has taken steps to meet with admissions and try to improve recruitment. It is unclear whether this will yield results at the present time. Recruitment and enrollment is thus an area of concern for the health of this program. Retention numbers are reasonably good, and time to completion is just under 4 years on average. DFW rate is high in a course on Multivariable Calculus. The program has worked with Math faculty to increase availability of assistance outside of class for these students.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Assessment was an area for improvement in the program's previous accreditation report. Since then, the program has taken steps to improve its assessment plan and to collect relevant data. The current accreditation report had no problems with the current program assessment. Assessment is complex in this department. From what we gather, there are a set of learning outcomes established by the accrediting body. The department then has to map how each of these outcomes are assessed and in what specific courses. In addition, the program established its own set of seven objectives and has its own measures of them. It is clear that a lot of data is being gathered, but it is a little less clear how the program uses this data for improvement. If it does, concrete examples would be helpful.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program has adjusted to a lot of changes - changes in physical location, changes in faculty, and changes in curriculum to align with the Morgantown campus. And it recently passed a successful accreditation visit. Plans for future improvements are less clear in this report. It is clear that the department takes initiatives to improve include the concern about better recruitment, changes to the design of some senior courses, and addressing the DFW rate of the math course. These show that the department is actively addressing problems as they arise.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or



particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

By December 2022, the program will submit a follow-up report to the Undergraduate Council that: 1) Details a plan to improve enrollment in the program, including a target enrollment and a timeline to achieve that enrollment in the next two or three academic years. By December in each of 2023 and 2024, submit a follow-up report to the Undergraduate Council that: 1) Provides enrollment data explaining the program's progress towards achieving its improvement plan.

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

**Location Data**

**Location:** [\(39.652, -79.9444\)](#)

**Source:** GeoIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BSCE Civil Engineering- WVUIT

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The mission of Civil Engineering program at WVU Tech aligns with that of WVU. The program supports WVU's LandGrant mission by offering the civil engineering program to the citizens of southern West Virginia who may not otherwise be able to attend the main campus in Morgantown. The program addresses this mission by preparing the students for civil engineering jobs, higher studies, and professional registration. The program also advances the mission by energizing the students to learn new skills and move to new positions with increased leadership, mentoring, and management responsibilities.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has adequate and accessible infrastructure resources. No issues have been identified in terms of resources, including student accommodation, classrooms, technological infrastructure, technological support, physical infrastructure, or library resources.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has highly qualified and productive faculty to meet the missions of the program. The number of faculty members is adequate. Nothing happened during the review period to have significantly negative effect on the productivity of faculty in terms of teaching, research, and service.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The enrollment in the program over the past five years ranged from 53-66 (with an average of 61 students). The enrollment was down in Fall 2020 because of the unprecedented situation of COVID-19. The demand for civil engineering graduates has increased since the passage of West Virginia's Roads to Prosperity \$200 million program in 2017. With the recent passage of the \$1.2 trillion dollar infrastructure bill, the demand for civil engineering graduates and future enrollments in the program are expected to increase further. The number of graduates over the past five years ranged from 9-15 (with an average of 11). The average program retention rate was 64.58%. The average length of time for students to graduate was 4.13 years. The time for completing the program showed a reduction from 4.76 years in AY 16-17 to 3.93 years in AY 20-21 because of the reduction of total credit hours from 131 (in 2015-16) to 125 (beginning in 2016-17). MATH 155 Calculus I was the course in which there were 11 CE students over the past three years with DFWs. The Student Success Center tries to address students' deficiencies in mathematics by placing students according to their ACT or SAT scores in mathematics and offering individual tutoring to the underprepared students.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

- Yes  
 No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

- Yes  
 No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

- Yes  
 No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The learning outcomes are clear and measurable. The program used direct assessments from student work as well as indirect assessments from surveys. A 70 percent target achievement goal was selected in all review cycles. With the exceptions of a few student outcomes in the 2014-2015 and 2015-16 review cycles, the 70 percent achievement goal was met in all student outcomes of the review cycles. At the end of each academic year, the department meetings are held to analyse and discuss the results from the direct and indirect assessment values for all classes and recommend possible improvements for the coming review cycle. The detailed and summarized results of the assessment of learning outcomes are spelled out in their ABET Self-Study Report. A careful examination of the Reports for the 2018-19 and 2019-2020 Review Cycles show the following in each course: (a) Modifications that have been made to the courses resulting from a previous assessment (b) Additional observations on student preparation, student performance, course management, in relation to student outcomes, etc. (c) Recommendations to improve the performance on the student outcomes.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program reduced the number of student learning outcomes from thirteen to seven (beginning AY 2018-19). It reduced the number of total credit hours to graduate from 131 to 125 (beginning AY 2016-17). As an incentive for students to pass the FE (Fundamentals of Engineering) exam, the Department covers the FE exam costs for the students. Based on feedback from the Civil Engineering Advisor Board and the ever-growing usages of GIS applications in civil engineering, it introduced a new elective, CE 375 (GIS Applications in Engineering) into the CE curriculum. ENGR 293R Pilot Program which was initiated in 2015 is ongoing and in the process of being adopted as a permanent program. This program allows eligible students who are starting one semester behind in math the opportunity to graduate in four years. It has the stability of faculty members. All civil engineering faculty members have now achieved tenure and have the rank of Associate Professor with the exception of one Associate Professor who will be applying for tenure & promotion next year. The Engineering Laboratory (ELAB) was constructed and completed before the Tech campus moved from Montgomery to Beckley in Fall 2017. The CE faculty recently approved adding CMGT 350 (Construction Estimating) in the 2022-2023 curriculum while reducing the number of technical electives from two to one.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

### Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

*This question was not displayed to the respondent.*  
Curriculum and Assessment

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or



particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.595306396484](#), [-79.922897338867](#))

**Source:** GeolIP Estimation



Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS in Computer Engineering - WVUIT

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program is aligned with WVU's mission, vision, and values. In particular, the program draws in the geographic diversity of students located near the Beckley campus of WVUIT while also attracting international students. The Bachelor of Science in Computer Engineering (BSCE) degree program focuses primarily on advancing education by instilling applied skills related to computer engineering. This educates a workforce in an important strategic area that serves the interests of industry, the state of West Virginia, and nationally. The program highlights the success of graduates obtaining jobs in computer related companies.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The BS in Computer Engineering program at WVUIT reports adequate physical and technological infrastructure.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The BSCE program at WVUIT is comprised of 6 faculty members who come from different countries which showcases its commitment to diversity. The faculty have the necessary credentials to teach the courses. Given the recent enrollment number of 25 students in Fall 2021 this results in approximately a student:faculty ratio of 4.2 which suggests that there is sufficient faculty but room for increased enrollment of students. The Excel data file associated with this program did not have any further statistics associated with the faculty. No info was provided on faculty productivity except for mentioning some instances of NSF funded projects. It is unclear what the typical appointment split is between teaching and research but it is assumed that appointments are primarily teaching appointments at WVUIT. The accreditation process revealed a concern related to high faculty turnover. The BSCE program at WVUIT submitted a response back to the accreditation body but unfortunately this body was not satisfied with the response. This concern was not elaborated further in the self-study materials provided by the BSCE program.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Given the recent enrollment number of 25 students in Fall 2021 and 6 faculty members in the program, this results in approximately a student:faculty ratio of 4.2 which suggests that there is room for increased enrollment of students. The average graduation rate for the 5-year reporting period of AY 16-17 to AY 20-21 was only 1.6 students which is low. Unfortunately, average program continuance of 52.8 % is also low over the 5-year period from 2015-2020. The bright spot is that for the students staying in the program, the average time to completion is an average of 4.2 years over the 4-year reporting period of AY 16-17 to AY 19-20.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The BSCE program at WVUIT has kept comprehensive records of their assessment activities which was one of their appendices in their accreditation report. Their assessment approach is based on the examination of student performance on tests and exams and assignments, capstone project presentations, and exit surveys of senior students. These assessment approaches involve examination of the degree to which different types of student learning outcomes have been attained on a 4 level rating scale (i.e., poor, fair, good, excellent).

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The main areas of improvement have been invested in satisfying the accreditation body in terms of the correct sequencing of courses with proper prerequisite requirements. The program also plans to offer a new introductory course co-taught by faculty in the program to allow earlier student exposure to computer engineering topics and allow early interaction between students and faculty in the program with the hope that this will lead to increased retention rates. It is recommended that the program develop a more comprehensive plan to increase program continuance and therefore retention rates. For instance, a tutoring system run by a graduate teaching assistant could provide assistance in the more challenging courses with complicated mathematical, computer science, and engineering topics.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

By December 2022, the program will submit a follow-up report to the Undergraduate Council that: 1) Addresses whether the program has been able to hire and retain faculty and resolve the related accreditation concern from its most recent ABET review. 2) Submit an improvement plan that identifies an enrollment target and a timeline to achieve that target in the next two or three academic years. 3) Submit an improvement plan that addresses how the program will improve program continuance and completion. By December in each of 2023 and 2024, submit a follow-up report to the Undergraduate Council that: 1) Provides data to show the progress the program is making towards meeting its enrollment and completion targets.

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

**Location Data**



**Location:** [\(39.652, -79.9444\)](#)

**Source:** GeoIP Estimation



This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Computer Science

If the program is specially accredited, is it in good standing with its accrediting body?

Yes

No

Not specially accredited; no national accrediting body

Not specially accredited; there is a national accrediting body

Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

Program aligns with the WVU mission and values through a commitment to excellence in teaching and research. The department is made up of diverse backgrounds and seeks to train highly skilled professionals who are able to continuously pursue best practices and enhance the opportunities and productivity of our state, country, and global community.

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Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program does seem to have adequate resources that allows them to accomplish their mission. One issue of concern is the accreditation was faculty retention. The department feels this could be due to the salary. Many professionals and students graduating the program are able to secure much higher salaries in the industry.

Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

One faculty member in this program is qualified by means other than academic credentials. This faculty member (Ranjith Munasinghe) does have a PhD in a related area, course work in Computer Programming, 10 years experience teaching CS and Information Systems courses, and research experience in this area.

Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment Trends- Enrollment trends for the program appear to be slightly lower, but according to the report students transfer from CS to IS and the delay in official change in major creates a difference in the reported numbers. The report also attributes potential decline in numbers due to the pandemic and a delay in adding the Cybersecurity program. The program has been corrected through the addition of a minor in Cybersecurity to the IS program and as an area of emphasis for the CS program. Number of Graduates- There are 10 anticipated graduates for the spring semester and the program anticipates the continuation of the positive trend despite the last two year's decline. Time to Completion- Most students do finish the program in 4 years. High D/F/W courses-CS 324 was listed as a high number of DFW's due to applications of math and student weakness in that area. Measures have been taken to address delivery methods, textbooks, and prerequisite course content. Student Success-Job placement percentage is at 100. Five of the ten spring graduates already have employment arranged with the other graduates currently interviewing. Some students have participated in research projects and presented that research at the capitol.

Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program

has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Program's assessment has a clear layout for courses and alignments to program goals with timeframes for each. The individual course assessments included data from each area with means to improve if necessary to close the loop on assessment.

Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

Improvements-The program has been able to identify and address courses/issues in their high D/F/W courses and work towards solutions. Faculty have addressed learning gaps and worked to give students a better learning experience. They have also developed a clear plan for assessment and learning outcomes. Many of the students are successful with job placement and employer satisfaction. They have also taken measures to build enrollment in the program through working with enrollment services and adding Cybersecurity to their program. The program has also secured Deep Learning workstations to facilitate learning to keep up with industry standards

Is the program seeking the Program of Excellence distinction?

Yes

No

What is the recommendation for this program?

Continuance at the current level of activity

Continuance at the current level of activity with specific action

Continuance at a reduced level of activity

Identification of the program for further development

Development of a cooperative program

Discontinuance

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Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

By December 2022, submit a follow-up report to the Undergraduate Council that: 1) Addresses if the program has been able to hire and retain faculty and resolved the related ABET concern from its accreditation review.

Characters remaining: 1283

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This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS in Electrical Engineering (WVUIT)

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

Faculty members in the BS in Electrical Engineering program at WVU Tech focus on the quality of their teaching and they are engaged in research, including involving students in discovery and innovation. The six faculty members in the department represent six different countries/backgrounds. The very technically literate cohort of graduates of the electrical engineering program at WVU Tech enhances the opportunities and productivity of West Virginia, the United States, and the global community. The Bachelor of Science in Electrical Engineering program engages undergraduates in a challenging academic environment. Many companies that visit campus for career fairs state that they cannot find enough technical students, and WVUT electrical engineering graduates have the necessary skills to get lucrative jobs upon graduation. Many of them also find jobs in West Virginia and can engage in creative problem solving helping the people of West Virginia have better lives. This program also attracts a number of international students,

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports no significant infrastructure issues.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.



The program reports adequate faculty, credentials, composition, and productivity.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Program enrollment has remained steady from Fall 16-Fall 20, ranging from a high of 50 to a low of 48. Number of graduates was 10, 13, 7, 5, and 13 (AY 16-17 to AY 20-21). The dip in AYs 18-19 and 19-20 seems to have rebounded back to a high of 13 again in AY 20-21. Time to completion has been relatively stable: 4.5, 4.44, 3.97, 4.5, 4.2 High D/F/W courses include CHEM 115 and CS 112, with 38% and 31% respectively of BS EE majors (last 3 years). The program explains that these 2 courses are early in the program, and readiness may be an issue. Another possible explanation, according to the program, is the instructor (for both courses). Student success: examples of faculty-guided research by students are included in the report. Student publications/presentations resulting from these mentored projects include IEEE Southeast Conference, North American Power Symposium, and NSF-sponsored project published by ASEE.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program provided a supplemental document that they provided to ABET as part of reaccreditation self-study. Included are Detailed Assessment Reports for Student Outcomes (by academic year), Graduating Senior Exit Surveys, and Departmental Meeting ABET minutes. Additional sources mentioned in the self-study include alumni surveys and feedback from employers at career fairs. Although not mentioned in this section of the report, the program provided information about an Industrial Advisory Committee that meets 2x/year and is comprised of industry professionals.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

Program improvements during the current reporting cycle include: two new faculty members in the computer engineering and communications/signals and systems; addition of AutoCAD and SOLIDWORKS (based on student and alumni feedback), computer lab upgrades, circuits lab upgrades, EE 311 Junior Instrumentation Lab improvements, and adjustments to EE 480 and 481 Capstone projects (and timing). The program plans a new AOE in Electrical Energy Systems. It is currently in CIM and expected to be effective Fall 2022.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

#### Location Data

**Location:** ([39.595306396484](#), [-79.922897338867](#))

**Source:** GeolIP Estimation



## Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Engineering Tech (WVUIT)

If the program is specially accredited, is it in good standing with its accrediting body?

Yes

No

Not specially accredited; no national accrediting body

Not specially accredited; there is a national accrediting body

Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program is in transition to train students to better serve industries in WV and the surrounding region by meeting growing high-tech needs of manufacturing. As a second-tier engineering program, Engineering Technology provides access into the engineering profession for WV students.

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Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program claims to have adequate and accessible infrastructure resources and has not identified any significant issues in this area.

Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program does not have any dedicated faculty and has worked around this by cross-listing courses with other programs. The explanation given by the program is that this is a result of the move to Beckley and the corresponding decline in enrollment, but it is not clear how the enrollment decline contributed to loss of faculty adequacy and productivity (presumably faculty positions were cut, but this is not made explicit in the explanation).

Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

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Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

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Enrollment dropped between 2016 and 2017 but appears to be rebounding. Program continuance has improved dramatically and average time to completion is good. There are no high DFW rate courses.

Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Provide a specific critique of the program's learning outcomes.

There are way too many program learning outcomes, although this may be an artefact of ABET accreditation. In some cases, two or more learning outcomes could be aggregated to a broader outcome as is appropriate for program-level outcomes. Faculty are encouraged to review program learning outcomes and revise appropriately, unless current outcomes are dictated/constrained by ABET.

Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.



Documentation is from 2015 follow-up of ABET accreditation visit. Presumably the program had another BOG review (before the current one) since 2015? Based on the information provided, no change to assessment plans, findings, or revisions since 2015. The program's focus seems to be on replacing the Mechanical Engineering Technology major with the Mechatronics major; almost nothing is said about the Civil Engineering Technology major or the Environmental Engineering Technology major.

Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

No information available.

Is the program seeking the Program of Excellence distinction?

Yes

No

What is the recommendation for this program?

Continuance at the current level of activity

Continuance at the current level of activity with specific action

Continuance at a reduced level of activity

Identification of the program for further development

Development of a cooperative program

Discontinuance

Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

Given the already dramatic restructuring of the programs in the major and the proposed move towards a mechatronics focus, the program should by December 2022, submit a follow-up report to the Undergraduate Council that: 1 Explains how the program will support the new mechatronics with dedicated faculty who have expertise in the area; 2 Reports on a market analysis that specifically evaluates the viability of an Engineering Technology degree in mechatronics (contact Robynn Shannon for assistance with this. 3 Shows a curriculum and plan of study that separates the degree program from the current Mechanical Engineering program and develops new dedicated coursework to be delivered by the dedicated faculty.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

Once you submit the survey, you will be redirected to a summary of your responses which can be downloaded as a pdf and share with the secondary reviewer.

Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

B.S. in Mathematics

If the program is specially accredited, is it in good standing with its accrediting body?

Yes

No

Not specially accredited; no national accrediting body

Not specially accredited; there is a national accrediting body

Provide a brief explanation of how the program aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The program supports the mission, vision, and values of the University by offering courses integral to both GEF curriculum and major requirements for the College of Engineering (LCNCE); College of Business, Humanities, and Social Sciences (BHSS); and Beckley branch of WVU's Nursing program. The curriculum provided by the program, in turn, supports graduates in preparation to leverage skills/talents in STEM fields within the state and beyond. The program also created a capstone senior course to support student learning, utilizing an inquiry based, student-centered format.

course to support student learning, utilizing an inquiry based, student-centered format.

Characters remaining: 921

Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

As part of self-study Q6.2, the program does not report having significant issues related to adequate technological infrastructure, physical infrastructure, accommodating students, or technological support. However, the program reports concern regarding laptop availability and software support needed to deliver instruction and conduct research. Some student feedback has inferred ineffective online instruction due to lack of technological support. The self-study reports "training" received in remote instruction and assessment proctoring, working to resolve that issue. Although the program reports limits in laptop availability, the self-study mentions a "delayed purchase" of technology, indicating the resources are now available.

Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Assessment report 2017 - 2018 indicates the program utilized 10 highly credentialed faculty- four of whom were tenured, four of whom were tenure track, one instructor, and one adjunct. The self-study mentions the program would benefit from the addition of a permanent Math 122 coordinator position as the course is enrolled by high number of first year students and is the initial step in the pathway of numerous GEF3 requirements and major requirements for a variety of majors. The course is currently utilizing an adjunct in this role. The program also reports limited faculty credentialing for applied mathematics courses. It seems adequate course offering are in place to meet student needs for majors and non-majors, but "lack of vision within the department" has led to a mismatch of qualified faculty. It seems the program has adequate faculty numbers, however.

Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Provi a brief summary of student enrollment trends, number of graduates, time to

Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

While average headcount is slightly down for the past five years, number of degrees conferred has increased. Although graduation numbers are low, this appears to be the norm for the program. Program continuance has remained steady, above 50%. Time to completion has decreased slightly from 4.1 to 3.7 years in the last two academic years. Student success for the program, regarding continuation in graduate programs and employment, is reported. Because the program serves non majors, course enrollment is steady.

Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Provide a specific critique of the program's learning outcomes.

The program lists four learning outcomes, published on catalog website, and one additional outcome targeting non majors. Although the assessment plan provides clear measures aligned with each outcome, the outcomes themselves would benefit from revision in order to create measurable, action-oriented goals. Specifically, the elimination of "demonstrate, understand, and will be," replacing with measurable language, would support a stronger program mission and opportunity for assessment.

Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Program assessment reports are provided for academic years 2015 - 2016 and 2017 - 2018. Both assessment reports include summary of data analysis for the same program learning outcomes. Courses within the program are clearly mapped to the outcomes, and measures of assessment are clearly delineated for each outcome. Outcomes would benefit from being revised to show measurability, specifically reworking language such as "demonstrate" and "understand." While the assessment plan would gain clarity from detailing how learning tasks target outcomes, the results of data summarization indicate mastery of outcomes in both reports. There are slight changes in measures used from 2015-2016 to 2017-2018, indicating some revisions of assessment plan. Program utilizes a graduate exit survey, indicating strong graduate satisfaction through both assessment cycles. No assessment data is included beyond 2018. Program reports having a new program director who has recently renewed a focus on assessment and worked with campus assessment coordinator to develop a more robust plan. Up to date assessment data is needed.

Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program has made strong efforts to create a common experience for all students enrolled in Math 122 by assigning one specific faculty member the responsibility of course curriculum. The program has additionally renewed efforts to offer quality remote instruction and engaged in academic integrity process training. The department of mathematics utilizes a capstone course as an opportunity for integrated research projects.

Is the program seeking the Program of Excellence distinction?

Yes

No

What is the recommendation for this program?

Continuance at the current level of activity

Continuance at the current level of activity with specific action

Continuance at a reduced level of activity

Identification of the program for further development

Development of a cooperative program

Discontinuance

Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data.
- 3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.
- 4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

The program will provide a follow-up report to the Undergraduate Council by December 2022 that: 1) Shows evidence that it has revised its learning outcomes and submitted those in CIM. The program will provide a follow-up report to the Undergraduate Council by December 2023 that: 1) Shows evidence that it has implemented and sustained its assessment of learning plan.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding

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Q1.1. Program Review - Reviewers Form AY 21 - 22

This review and the accompanying recommendation have been prepared, reviewed, and approved by the Graduate or Undergraduate Council of WVU.

Q1.2. Program Designation and Name (such as: B.A. in English or M.S. in Forensic Science)

BS Mechanical Engineering WVUIT

Q1.3. If the program is specially accredited, is it in good standing with its accrediting body?

- Yes
- No
- Not specially accredited; no national accrediting body
- Not specially accredited; there is a national accrediting body

Q1.4. Explain why the program is not in good standing with its accrediting body. Provide a judgment on whether or not the program is taking adequate action(s) to return to good standing.

*This question was not displayed to the respondent.*

Q1.5. Is the program seeking specialized accreditation? Why or why not?

*This question was not displayed to the respondent.*

Q1.6. Provide a brief explanation of how the program is aligns with WVU's mission, vision, and values.

If the program has been out alignment with the mission, vision, or values, provide a judgment on whether or not the program is taking adequate action(s) to return to alignment with the mission and/or values.

The Bachelor of Science in Mechanical Engineering program at WVU Tech supports activities that are directly consistent with the WVU mission, vision, and values. It prepares students to solve problems and become leaders in their field.

Q2.1. Briefly explain if the program has adequate and accessible infrastructure resources.

If the program has had issues in this area, briefly explain those issues, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program reports that it has adequate resources and staffing at the present time.

Q3.1. Provide a brief summary of faculty adequacy, credentials, composition, and productivity.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The faculty are qualified for their positions. In addition to teaching, they actively engage the broader community and expose pre-college students to the field of engineering through camps and presentations.

Q4.1. Are program elements accurately published in the Catalog and other web-based resources? This includes program enrollment requirements, expected time to completion, requirements for majors and areas of emphasis, etc.

Yes

No

Q4.2. What was inaccurate?

*This question was not displayed to the respondent.*

Q4.3. Provide a brief summary of student enrollment trends, number of graduates, time to completion, high D/F/W courses, and student success (creative or research endeavors, presentations, publications, grants or scholarships, recordings, exhibitions, performances, etc.)

If the program has had issues in any of these areas, briefly explain the issues the program has had in this area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

Enrollment has decreased but retention has increased. High levels of DFW in Math courses are an issue that the program is seeking to address. In an upcoming curriculum revision, they report that one possibility might be to include lower level math courses toward the major as well. This might help students to be more prepared for the calculus courses. Student placement in careers after graduation is very impressive.

Q5.1. Are the program's learning outcomes accurately published in the Catalog?

Yes

No

Q5.2. Are the program's learning outcomes appropriate to the degree level and type, reasonable in number, and clear and measurable?

Yes

No

Q5.3. Provide a specific critique of the program's learning outcomes.

*This question was not displayed to the respondent.*

Q5.4. Generally speaking, do the program's learning outcomes ensure students collect, analyze, and communicate information, master modes of inquiry or creative work, and develop skills that are adaptable beyond the program?

Yes

No

Q5.5. Provide a brief summary of the program's assessment plan, evidence of assessment, relevant assessment findings from this cycle, and program change and/or improvement related to assessment.

If the program has had issues in any of these areas, briefly explain the issues the program has had in this

area, what steps have been taken to address those issues, and provide a judgment on whether the issues have been adequately resolved.

The program has a set of outcomes that are aligned with their accreditation. There is a curriculum map that indicates the specific courses in which those outcomes are measured. There is a good system in place to measure student progress from year to year. The programs efforts in continuous improvement in their ABET report are especially detailed and informative. It is clear that this program is using assessment to improve course delivery and to inform the overall design of the program.

Q6.1. Provide a brief summary of improvements made to the program over this review cycle and what plans the program has initiated for future improvements.

If the Council would like to provide recommendations to the program for areas of future improvement, include those here.

The program has made a number of improvements in the areas of course requirements, course delivery, and retention. A few course requirements have been changed to align with Morgantown. Changes in instruction are detailed in the assessment report. Improvements to student retention have been documented and can be attributed to bringing in students who are serious about the study of engineering. Most importantly, the program plans to begin a redesign of their curriculum in order to improv student retention and outcomes.

Q7.1. Is the program seeking the Program of Excellence distinction?

Yes

No

Q7.2. Do you believe the program should be awarded the Program of Excellence distinction?

*This question was not displayed to the respondent.*

### Q7.3.

Provide a brief summary for why the program should be awarded the Program of Excellence distinction.

In your summary make sure to address why the program meets the requirements for each of the following categories (see the description of those requirements at the [Program Review website](#)):

Distinction

Faculty

Graduates

Curriculum and Assessment

*This question was not displayed to the respondent.*

Q7.4. This program meets the Program of Excellence criteria for "distinction" as follows:

*This question was not displayed to the respondent.*

Q7.5. This program meets the Program of Excellence criteria for "faculty" as follows:

*This question was not displayed to the respondent.*

Q7.6. This program meets the Program of Excellence criteria for "graduates" as follows:

*This question was not displayed to the respondent.*

Q7.7. This program meets the Program of Excellence criteria for "curriculum and assessment" as follows:

*This question was not displayed to the respondent.*

Q8.1. What is the recommendation for this program?

- Continuation at the current level of activity
- Continuation at the current level of activity with specific action
- Continuation at a reduced level of activity
- Identification of the program for further development
- Development of a cooperative program
- Discontinuation

Q8.2. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when. Typically reports are due at the end of the same calendar year when the program review was submitted.

Examples of reports back to the Council often may:

- 1) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts).
- 2) Ask the program to resubmit any section of weakness from the program review (entire sections or

particular prompts) with additional supporting evidence and/or data.

3) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan.

4) Ask the program to resubmit any section of weakness from the program review (entire sections or particular prompts) with additional supporting evidence and/or data as well as a comprehensive action plan with additional interim follow-up reporting.

*This question was not displayed to the respondent.*

Q8.3. Provide an explanation of what follow up action(s) should be taken by the program, what response is expected to the Council (if any), and when.

*This question was not displayed to the respondent.*

Q8.4. Provide a rationale explaining the recommendation for discontinuance.

*This question was not displayed to the respondent.*

Q9.1.

This is the end of the program review summary. Once you submit the survey you will be unable to make further edits without contacting the Assistant Provost for Curriculum and Assessment. Please take a moment to ensure the summary is complete before proceeding with submission.

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#### Location Data

**Location:** ([39.595306396484](#), [-79.922897338867](#))

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