

Marshall University Graduation Survey

2024-2025 School Year

College of Engineering & Computer Science

Undergraduate Students

Survey Timeline

Summer 2024 Survey:

- Open Date – October 21, 2024
- Close Date – January 11, 2025

Fall 2024 Survey:

- Open Date – October 21, 2024
- Close Date – May 10, 2025

Spring 2025 Survey:

- Open Date – March 10, 2025
- Close Date – October 5, 2025

Report Content

- Student Experience Data
- Academic Career Questions
- Reflection Questions
- Quality Questions: Teaching, Advising, Academic Support Services, Classroom/Lab Facilities, Online Learning
- College-Specific Questions

Student Demographics and Experience Data - CECS Undergraduate Responses (2024-2025 School Year)

Upon graduation, what was the dollar amount of your educational loan indebtedness? ▲	# of Responses	% of Responses
a. \$0/No indebtedness	40	60%
b. Up to \$4,999	2	3%
c. \$5,000 - \$9,999	3	4%
d. \$10,000 - \$14,999	3	4%
e. \$15,000 - \$19,999	3	4%
f. \$20,000 - \$24,999	4	6%
g. \$25,000 - \$29,999	3	4%
h. \$30,000 - \$34,999	1	1%
i. \$35,000 - \$39,999	1	1%
k. \$50,000 or more	7	10%
Total	67	100%

During the last year of your studies, how many hours a week did you work while attending classes? ▲	# of Responses	% of Responses
1 to 10	10	14%
11 to 20	21	30%
21 to 30	20	28%
More than 30	9	13%
None	11	15%
Total	71	100%

If you answered "working" as your primary plans after graduation, was this position	# of Responses	% of Responses
did not answer "working"	25	36%
hybrid	6	9%
in-person	35	50%
remote	4	6%
Total	70	100%

Did you take part in an internship, practicum, research or other experience related to your major and anticipated career?	# of Responses	% of Responses
		▼
Yes	58	82%
No	13	18%
Total	71	100%

If you answered Yes to the previous question, did that experience increase your ability to secure employment or employment offers?	# of Responses	% of Responses
No	5	9%
Yes	52	91%
Total	57	100%

The following questions relate to information taught in courses you may have taken early in your academic career, such as English, math, social sciences, etc. While pursuing my degree at Marshall University...

My classes challenged me to analyze and evaluate issues and to solve real-world problems in a manner that is ethical and supportive of our civic well-being.	# of Responses	% of Responses
	▼	
b. Agree	35	50%
a. Strongly Agree	27	39%
c. Neutral	7	10%
e. Strongly Disagree	1	1%
Total	70	100%

I used knowledge from more than one area of study to explore issues or to solve problems.	# of Responses	% of Responses
a. Strongly Agree	34	49%
b. Agree	30	43%
c. Neutral	6	9%
Total	70	100%

I determined how to improve my own learning and to engage in lifelong learning.	# of Responses	% of Responses
	▼	
a. Strongly Agree	30	43%
b. Agree	30	43%
c. Neutral	9	13%
d. Disagree	1	1%
Total	70	100%

I learned to analyze my own values and to examine other viewpoints and credible evidence.	# of Responses	% of Responses
a. Strongly Agree	28	40%
b. Agree	36	51%
c. Neutral	5	7%
e. Strongly Disagree	1	1%
Total	70	100%

Writing intensive courses enhanced my learning experience.	# of Responses	% of Responses
	▲	
a. Strongly Agree	18	26%
b. Agree	23	33%
c. Neutral	14	20%
d. Disagree	10	14%
e. Strongly Disagree	5	7%
Total	70	100%

I learned to examine issues from multiple perspectives.	# of Responses	% of Responses
a. Strongly Agree	29	41%
b. Agree	35	50%
c. Neutral	6	9%
Total	70	100%

I developed multicultural and global perspectives.	# of Responses	% of Responses
	▼	
b. Agree	25	36%
a. Strongly Agree	19	27%
c. Neutral	18	26%
d. Disagree	6	9%
e. Strongly Disagree	2	3%
Total	70	100%

I learned to use what I know to solve novel problems.	# of Responses	% of Responses
	▲	
a. Strongly Agree	29	41%
b. Agree	32	46%
c. Neutral	9	13%
Total	70	100%

The following questions relate to information taught in courses you may have taken early in your academic career, such as English, math, social sciences, etc. While pursuing my degree at Marshall University... CONT'D

I developed the ability to express myself effectively through speaking.	# of Responses	% of Responses
a. Strongly Agree	22	31%
b. Agree	35	50%
c. Neutral	12	17%
d. Disagree	1	1%
Total	70	100%

I learned to find scholarly information, to evaluate it critically and to use it effectively.	# of Responses	% of Responses
a. Strongly Agree	29	43%
b. Agree	34	50%
c. Neutral	5	7%
Total	68	100%

I used numerical information to explore real world problems.	# of Responses	% of Responses
a. Strongly Agree	33	48%
b. Agree	33	48%
c. Neutral	3	4%
Total	69	100%

I developed the ability to write effectively.	# of Responses	% of Responses
a. Strongly Agree	29	41%
b. Agree	34	49%
c. Neutral	7	10%
Total	70	100%

My capstone course, final degree project, or experience challenged me to do my best work.	# of Responses	% of Responses
a. Strongly Agree	33	47%
b. Agree	29	41%
c. Neutral	6	9%
d. Disagree	2	3%
Total	70	100%

I gained expertise in the use of software, programs, or technology important in my major field.	# of Responses	% of Responses
a. Strongly Agree	28	40%
b. Agree	35	50%
c. Neutral	6	9%
e. Strongly Disagree	1	1%
Total	70	100%

Now that I've completed my degree...

I believe that Marshall University's program in my major field is of high quality.	# of Responses	% of Responses
a. Strongly Agree	17	25%
b. Agree	34	49%
c. Neutral	11	16%
d. Disagree	6	9%
e. Strongly Disagree	1	1%
Total	69	100%

I would recommend Marshall to prospective students.	# of Responses	% of Responses
a. Strongly Agree	21	30%
b. Agree	32	46%
c. Neutral	14	20%
d. Disagree	1	1%
e. Strongly Disagree	1	1%
Total	69	100%

I feel adequately prepared for a career and/or graduate or professional study in my field.	# of Responses	% of Responses
a. Strongly Agree	20	29%
b. Agree	37	54%
c. Neutral	9	13%
d. Disagree	3	4%
Total	69	100%

I would recommend to others that they study the same program at Marshall.	# of Responses	% of Responses
b. Agree	34	49%
a. Strongly Agree	21	30%
c. Neutral	11	16%
d. Disagree	3	4%
Total	69	100%

Please rate your level of satisfaction with the quality of the following at Marshall.

Teaching	#	%
a. Very Satisfied	13	19%
b. Satisfied	41	60%
c. Neutral	12	18%
d. Dissatisfied	2	3%
Total	68	100%

Advising	#	%
a. Very Satisfied	21	31%
b. Satisfied	23	34%
c. Neutral	13	19%
d. Dissatisfied	8	12%
e. Very Dissatisfied	3	4%
Total	68	100%

Academic Support Services	#	%
a. Very Satisfied	18	26%
b. Satisfied	34	50%
c. Neutral	13	19%
d. Dissatisfied	3	4%
Total	68	100%

Classroom/Lab Facilities (rate only if you have taken courses on the main campus or at another Marshall University location)	#	%
a. Very Satisfied	19	28%
b. Satisfied	34	50%
c. Neutral	11	16%
d. Dissatisfied	4	6%
Total	68	100%

Online learning experience (rate only if you have taken online courses)	#	%
a. Very Satisfied	17	25%
b. Satisfied	31	46%
c. Neutral	14	21%
d. Dissatisfied	5	7%
e. Very Dissatisfied	1	1%
Total	68	100%

College Satisfaction Questions... College of Engineering and Computer Science

How many SEMESTERS did you do engineering-related work as an intern or part time worker?	# of Responses	% of Responses
1	10	18%
2	20	36%
3	7	13%
4	7	13%
more than 4 summers	11	20%
Total	55	100%

How many SUMMERS did you do engineering-related work as an intern or part time worker?	# of Responses	% of Responses
1	14	26%
2	28	52%
3	8	15%
4	4	7%
Total	54	100%

Do you plan to take the Principles & Practice of Engineering (PE) Exam when eligible?	# of Responses	% of Responses
Maybe	13	19%
No	30	44%
Yes	25	37%
Total	68	100%

If you have firm post-graduation employment plans, what sector within engineering will you be working in?	# of Responses
Academia	1
Civil Engineering	1
Computer engineering	1
Cybersecurity, defense	1
Hydraulics	1
I do not have employment plans	1
I plan on working in the Data Analytics, not really related to engineering, maybe data engineering if need be.	1
Industry	1
Instrumentation and Controls	1
Mechanical.	1
Public	1
Research and development	1
Research/Private Sector	1
Transportation	1
Aerospace	2
No	2
Private	2
Total	20

If you have firm post-graduation employment plans, what area(s) within engineering will you be working in?	# of Responses
Aerospace	2
Biomedical Engineering	2
Civil Design	1
Computer Science	1
Construction	1
Electrical	1
Hydraulics	1
Hydraulics and Hydrology	1
I do not	1
I do not have employment plans	1
I plan on working in the Data Analytics, not really related to engineering, maybe data engineering if need be.	1
Mechanical.	1
Nuclear & Electrical Engineering -- Power Plant	1
Pressure vessels, structures, machinery	1
Project Management	1
Research and development	1
Research in structural mechanics	1
Roadway	1
Software Engineering	2
Transportation	1
Utilities	1
Total	24

College Satisfaction Questions Cont'd... College of Engineering and Computer Science

I am able to acquire and apply new knowledge as needed, using appropriate learning strategies.	# of Responses	% of Responses
▲		
a. Strongly Agree	29	46%
b. Agree	33	52%
c. Neutral	1	2%
Total	63	100%

I am able to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	# of Responses	% of Responses
▲		
a. Strongly Agree	29	46%
b. Agree	31	49%
c. Neutral	3	5%
Total	63	100%

I am able to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	# of Responses	% of Responses
▲		
a. Strongly Agree	26	41%
b. Agree	34	54%
c. Neutral	3	5%
Total	63	100%

I am satisfied with civil engineering faculty.	# of Responses	% of Responses
▲		
a. Very Satisfied	10	18%
b. Satisfied	19	34%
c. Neutral	26	46%
d. Dissatisfied	1	2%
Total	56	100%

I am able to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	# of Responses	% of Responses
▲		
a. Strongly Agree	35	56%
b. Agree	25	40%
c. Neutral	3	5%
Total	63	100%

I am able to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	# of Responses	% of Responses
▲		
a. Strongly Agree	27	43%
b. Agree	32	51%
c. Neutral	4	6%
Total	63	100%

I am able to communicate effectively with a range of audiences.	# of Responses	% of Responses
▼		
b. Agree	33	53%
a. Strongly Agree	26	42%
c. Neutral	2	3%
d. Disagree	1	2%
Total	62	100%

Have you take and passed the Fundamentals of Engineering (FE) Exam?	# of Responses	% of Responses
▲		
Not yet taken	56	84%
Taken and passed	6	9%
Taken, but not passed	5	7%
Total	67	100%

I am able to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	# of Responses	% of Responses
▲		
a. Strongly Agree	25	40%
b. Agree	31	50%
c. Neutral	6	10%
Total	62	100%

College Satisfaction Questions Cont'd... College of Engineering and Computer Science

I am satisfied with Marshall University's library services.	# of Responses	% of Responses
a. Very Satisfied	23	37%
b. Satisfied	29	46%
c. Neutral	10	16%
d. Dissatisfied	1	2%
Total	63	100%

I am satisfied with Marshall University's student professional organizations (SAME, ASCE, etc.).	# of Responses	% of Responses
a. Very Satisfied	23	38%
b. Satisfied	18	30%
c. Neutral	18	30%
d. Dissatisfied	1	2%
e. Very Dissatisfied	1	2%
Total	61	100%

I am satisfied with non-engineering staff (math, science, etc.)	# of Responses	% of Responses
a. Very Satisfied	15	23%
b. Satisfied	22	34%
c. Neutral	13	20%
d. Dissatisfied	11	17%
e. Very Dissatisfied	3	5%
Total	64	100%

I am satisfied with the content of engineering courses.	# of Responses	% of Responses
a. Very Satisfied	14	23%
b. Satisfied	39	63%
c. Neutral	7	11%
d. Dissatisfied	2	3%
Total	62	100%

I am satisfied with the content of non-engineering courses.	# of Responses	% of Responses
a. Very Satisfied	14	22%
b. Satisfied	30	48%
c. Neutral	14	22%
d. Dissatisfied	3	5%
e. Very Dissatisfied	2	3%
Total	63	100%

I am satisfied with the engineering laboratory facilities.	# of Responses	% of Responses
a. Very Satisfied	15	24%
b. Satisfied	32	52%
c. Neutral	11	18%
d. Dissatisfied	4	6%
Total	62	100%

I am satisfied with the grading and fairness of assignments and exams in civil engineering courses.	# of Responses	% of Responses
a. Very Satisfied	10	18%
b. Satisfied	19	35%
c. Neutral	22	40%
d. Dissatisfied	4	7%
Total	55	100%

I am satisfied with the laboratory experience of engineering courses.	# of Responses	% of Responses
a. Very Satisfied	17	27%
b. Satisfied	31	50%
c. Neutral	10	16%
d. Dissatisfied	3	5%
e. Very Dissatisfied	1	2%
Total	62	100%

I am satisfied with the level of technical preparation to enter an engineering career.	# of Responses	% of Responses
a. Very Satisfied	14	22%
b. Satisfied	41	63%
c. Neutral	7	11%
d. Dissatisfied	3	5%
Total	65	100%

College Satisfaction Questions Cont'd... College of Engineering and Computer Science

I am satisfied with the overall learning environment in Marshall's Engineering program.	# of Responses	% of Responses
a. Very Satisfied	20	32%
b. Satisfied	37	59%
c. Neutral	6	10%
Total	63	100%

I am satisfied with the quality of instruction I received in civil engineering courses.	# of Responses	% of Responses
a. Very Satisfied	11	19%
b. Satisfied	21	36%
c. Neutral	24	41%
d. Dissatisfied	2	3%
Total	58	100%

I am satisfied with the textbook selection of engineering courses.	# of Responses	% of Responses
a. Very Satisfied	11	18%
b. Satisfied	36	58%
c. Neutral	10	16%
d. Dissatisfied	4	6%
e. Very Dissatisfied	1	2%
Total	62	100%

I am satisfied with engineering staff.	# of Responses	% of Responses
▲		
a. Very Satisfied	16	25%
b. Satisfied	39	61%
c. Neutral	8	13%
e. Very Dissatisfied	1	2%
Total	64	100%

College Satisfaction Questions Cont'd... College of Engineering and Computer Science

What can we do to improve our classroom and/or laboratory instruction?

- Add more labs
- Better guidance in labs. Sometimes students are left to figure it out and labs can get very chaotic with little structure.
- Better teachers
- Classroom and laboratory instruction was good, just needed more time in the labs as an undergraduate
- get underclassman students involved in the lab and lab classes earlier.
- In my opinion, having a professor add a power point lecture to blackboard and say "good luck" then turn around and give us a test or quiz with not much time to finish it is a problem. I believe having effective communication and problems as well as accurate feedback on homework's and quizzes will improve the lessons and help students succeed
- Increased lab class time
- Larger lab or another lab
- Make more hands on projects relevant to real world projects.
- Make sure the laboratory equipment is prepared before the semester starts.
- More funding, better equipment
- More Lab based classes. More software classes
- More lab space and bench space for the BME department would alleviate a lot of stress in the department and with students
- N/A
- Provide additional space and equipment, then create lower level courses to give underclassmen more laboratory experience
- Updated Lab equipment in lab building

What can we do to improve our curriculum?

- Create a curriculum that is more relevant to modern day technology.
- Discard other General education requirements that do not apply to our field. Allow more humanities and writing intensives in engineering classes because there are a lot of writing
- Do not combine basic curriculum into singular courses for all engineering majors
- Ensure classes at a given semester are available fo be taken simultaneously and do not conflict.
- Ensure that the information taught is up to date and relevant in the industry.
- Having a set of standards for what you will learn in classes that doesn't change 100% with each different professor. It creates a wide gap in the education of the students here.
- I believe the ECE degree has a wild amount of hours
- I cannot think of anything for the curriculum
- Improve BSEE by keeping a decent amount of professors. Less professors put a struggling on the few left and on the quality of the courses.
- Make it consistent class material taught by teachers who may teach the same class. Especially if it is a prerequisite.
- More BME geared classes
- More electives
- More lab experience for Biomedical Engineers
- More lab time
- More teachers
- Offer more courses
- Offer more electives
- The greatest defficiency in the program is the talent void. Getting better professors, especially for the 300 level courses, would help greatly in this regard. The introduction of a basic web dev course into the undergrad program would also be greatly beneficial.
- Work on collaboration between the professors to better help the students.

College Satisfaction Questions Cont'd... College of Engineering and Computer Science

▲ If you would not recommend your program to others, what are the reasons why?

Classes are too sporadic. Some professors do not give the students the ability to think critically about problems and others give work that is beyond the students' capabilities whether it is time based or information based.

If you fall off course at all you are automatically placed a year behind schedule with the way courses are laid out. They do not inform you of how bad off you will be if you decide to leave to do a Co-Op. Once coming back from my Co-Op I was thrown very off track and there wasn't anything I could do about it. Most of the professors as well as the chair of the department have very different opinions on what classes can or cannot be taken without one another and some are not very familiar with the classes they do not teach. I was also informed I could not take a class without taking the prerequisite and I took it over the summer to stay as on track as I could be only to return to school in the Fall and find that that prerequisite had been waived for other students.

Lebdah

Need better professors

Need to help better prepare students for life after graduation.

School/Life balance

Some teachers were great others were awful

The program is not modern and is still focused on old information that isn't as relevant.

The quality of the actual courses in the program vary greatly, and many of the later courses in the program do not engage the critical thinking necessary for success or feel completely irrelevant to the major

▲ What else can we do to improve our program?

Bigger lab for more research

Do not combine all engineers into advanced courses like Fluid Mechanics

Fire Lebdah

Give more resources to freshmen and sophomore students

Give student clearer guidance on the order of classes to be taken. I took classes in the wrong order and had to take an extra year as a result.

Just work on better communication within the department.

More staff, more funding

Offer a wider range of game engines for students interested in game design.

Prepare advisors better. A lot of classes can get missed or too many prerequisites missed because advisors aren't efficient in their own major and classes.

provide more connections to outside companies and internship opportunities and have more classes geared toward student interested in going into industry after graduation.

Separate capstones for each professor/research advisor

Take put Metallurgy as a requirement and add vibrations of CFD