

Student Performance and Achievement Information

Annual Undergraduate AIT Enrollment Data

	Fall 2020	Fall 2021	Fall 2022	Fall 2023	Fall 2024
Concentration - Mechatronics Technology	4	4	5	12	5
Concentration – Aviation Management	64	48	62	68	40
AIT (BS) total	68	52	67	80	45

Graduation Rate: First-Time Full-Time Freshmen 6-Year Graduation Rate is shown as

	2013 cohort	2014 cohort	2015 cohort	2016 cohort	2017 cohort
Concentration - Mechatronics Technology	15%	0%	25%	44%	42%
Concentration – Aviation Management	35%	8%	36%	50%	46%
AIT (BS) total	25%	8%	31%	47%	44%

Retention Rate: The First-time full-time freshmen retention within same major of AIT is shown as

	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Concentration - Mechatronics Technology	62%	51%	52%	31%	55%
Concentration – Aviation Management	51%	33%	38%	23%	41%
AIT (BS) total	57%	42%	45%	27%	48%

Mean grade point averages of the graduating class: 3.62

Average time to complete degree program: 4 years if the student does not attend any summer semesters; 3.5 years if the student attends 3 summer semesters.

Availability of awards/scholarships: The College of Engineering at TSU posted the scholarship information and awarded students at <https://www.tnstate.edu/engineering/news.aspx> and scholarship announcements at <https://www.tnstate.edu/engineering/scholarships.aspx> . In 2024-2025, the college of engineering provided \$1,000,000 scholarship to students in the college. These scholarships include industrial scholarships, Engineering Alumni Association scholarship, federal grant scholarship, including NSF for transfer students, USDA, etc.

Tuition expenses to complete the entire program: in-state tuition is \$385 per credit hours. The program has 120 academic hours. The tuition expenses to complete the entire program as in-state tuition is \$46,200. The out-of-state tuition is \$960 per credit hour. The tuition expenses to complete the entire program as out-of-state tuition is \$115,200.

Career placement rates: All prior graduates for this department in the 3 concentrations have either secured employment or are attending graduate schools. Therefore, our placement rate is 100%. The Lighcast alumni data shows that reside in the region is 48%.

Time to secure the first position: Within three months after graduation, graduates can secure their first position.

Average Starting Salary: For AIT graduates, the average starting salary is \$52,500.00. The estimated median wage is \$77,200. The potential wage is \$107,600 after promotion.

The program outcome assessment process and results: The program outcomes have been assessed using the following four tools: (1) Course-Embedded Assessment, (2) Faculty Evaluation of Capstone Design Projects, (3) Departmental Industrial Advisory Board (IAB) Evaluation of Capstone Design Projects, and (4) Exit Interview. The former three are direct measures and the last one serves as an indirect measure. These tools covered all program outcomes. AIT posted their outcome assessment process and results in the platform <https://accreditationprep.com/> . The platform listed the 7 outcomes of AIT program and assigned each instructor with the course-embedded outcome assessment by end of semester to assess student performance.

In the course-embedded assessment, one or more key instruments (classroom assignment, project, quiz, exam problem, written report, oral presentation, etc.) are chosen in a course to assess a student outcome. The students' works are graded using either scoring rubrics with four levels (for outcomes in which soft skills are involved) or numerical scale up to 100 points (for outcomes that are technically straight). The grades are translated to scores of 4, 3, 2, and 1 or E, A, M, and U as follows: 4 – **E**xcellent or E-level (90-100 points on 100 scale); 3 – **A**dequate or A-level (70-89 points) ; 2 – **M**inimal or M-level (60-69 points) ; 1 – **U**nsatisfactory or U-level (below 60 points). The average score for the achievement of an outcome or a performance indicator of an outcome is calculated as:

$$Percentage(\%) = \frac{\text{No. of Students with score higher than 3.0}}{\text{Total No. of Students}} \times 100\%$$

$$\text{Average} = \frac{\sum \text{Score} \times \text{No. of Students with that score}}{\text{Total No. of Students}}$$

The performances are classified into four categories:

Red flag – Average ≤ 2.0 and U-level $\geq 10\%$ (of the participating students). This is a problem area and improvement are needed.

Yellow flag – Average ≤ 2.0 or U-level $\geq 10\%$, but not both. This is a possible problem area and improvement maybe needed.

Green flag – Average ≥ 2.75 and U-level = 0%. The outcome is well achieved.

No flag – The scores do not fit any above-colored flag classifications. The performance level is acceptable.

In addition, a criterion of 70% of the students to achieve a score of 3 or higher on a 4-point rubric was used. This target benchmark was established based on historical ATMAE data. The courses chosen to measure the outcomes are generally required courses within the major. Each outcome is assessed by both lower-level course(s) and higher-level course(s) to monitor the continuous improvement with the same class of students. The assessment plan has been designed such that students learn, practice, and demonstrate their learning as they advance through the curriculum from simple to more complex concepts and skills.

Rubrics with performance indicators were used for the seven learning outcomes. The assessment results for the 2023-2024 cycle are summarized in the self-study report. The numbers in the EAMU Vector indicate the number of students who achieved the levels of E, A, M, and U respectively. Detailed evaluation of the assessment data for each outcome in each course including the areas of needed improvements was provided by the instructor. This information along with students' sample works for each outcome is documented and is available for onsite review.