Chapter 8  Teaching & Learning

Goals
The University of Michigan provides rich academic and social settings to help students find the right combination of courses and extra-curricular activities to meet their individual needs. It also seeks to enhance the student learning experience by improving the student-faculty ratio, encouraging international experiences, supporting academic multicultural initiatives, keeping pace with instructional technology and facilities, and expanding undergraduate engaged learning opportunities.

Overview
Instruction of students is a shared activity involving tenured and tenure-track faculty (3,156), lecturers (1,135), clinical-instructional faculty (2,364), other instructional faculty (394), and graduate student instructors (2,506), based on the November 2021 count of faculty and staff.

The learning and teaching environment at the University has been developed – and is regularly modified – to provide students with the knowledge and skills necessary to succeed in the 21st century. Faculty members bring tremendous depth to the classroom when they include the latest in research and scholarship in courses.

The institution must certainly support the development of all the traditional capabilities – the ability to speak and write clearly, reason critically and quantitatively, gain competence in a student’s discipline of choice, and engage with the arts and humanities. Students must also have the confidence to innovate and take risks, develop skills for group work, collaborate effectively with individuals from diverse backgrounds and cultures, and have command of the latest information technologies.

The University offers undergraduate students the opportunity to participate in focused “learning communities,” each organized around intellectual interests, such as international issues, research, or civic engagement. These give students the opportunity to live, interact and learn with a close-knit group that includes faculty and staff.

Global engagement is an area of special emphasis as a focus of unique learning opportunities. The Global Michigan web portal helps students find and pursue the kind of deep, cultural understanding that comes through shared experiences among students and faculty from different countries and cultures.

The University regularly administers a survey of undergraduate students known as UMA (University of Michigan Asks You). UMA asks students to report about their satisfaction with academic programs, their sense of knowledge gain, and their opportunities to gain experience outside of the classroom. Data from past surveys are summarized in this chapter.

For More Information
Michigan Learning Communities (lsa.umich.edu/mlc)
Living Learning/Theme Communities (housing.umich.edu/themes-mlcs/)
Global Michigan (global.umich.edu)
Engaged Michigan (engaged.umich.edu)

Charts in Chapter 8
8.1.1 Instructional Workforce Headcount by Job Family, Fall 2022.
8.1.2 Instructional Workforce Full-Time Equivalents (FTEs) by Job Family, Fall 2022.
8.2 Undergraduate Student-Faculty Ratios for U-M and Peers Compared to Average Ratios for AAU Public, AAU Private, and Big Ten Institutions, Fall 2021.
8.3 Student Participation in Michigan Learning Communities, 2020-21.
8.4.1 Student Participation in Education Abroad, Academic Years 2015-2022.
8.4.2 Top Ten Education Abroad Destinations, Student Count by Country, 2020-21.
8.4.3 Self-Reported Learning Gains of Graduating Seniors in Understanding Global Issues from Time of Initial U-M Enrollment compared to Senior Year, 2009-2019.
8.5 Self-Reported Satisfaction of Seniors with Instructional Quality and Faculty Interaction, 2009-2019.
8.6.1 Graduating Seniors in 2018-19 Who Report Engaged Learning Experiences While at the U-M.
8.6.2 Self-Reported Satisfaction of Graduating Seniors with the Opportunities for Research or Creative Activity Experiences, 2009-2019.
8.7 Self-Reported Learning Gains of Graduating Seniors from Time of Initial U-M Enrollment Compared to Senior Year, 2019.
Course instruction is performed by individuals in a variety of job categories including tenured and tenure-track faculty members, lecturers, clinical instructional faculty, and graduate student instructors.

8.1.1 Instructional Workforce Headcount by Job Family, Fall 2022.

8.1.2 Instructional Workforce Full-Time Equivalents (FTEs) by Job Family, Fall 2022.

SOURCE: U-M Human Resources Data

In both pie charts above, "Other Instructional Faculty" includes regular faculty not assigned to the tenure track, supplemental instructional faculty, and adjunct lecturers.

This chart does not include research-track faculty and emeritus faculty.
U-M’s undergraduate students-to-faculty ratio was lower than the averages of AAU public and Big Ten institutions in Fall 2021.

8.2 Undergraduate Student-Faculty Ratios for U-M, Peer Universities, and Average Ratios for Public AAU, Private AAU, and Big Ten Institutions, Fall 2021.


All the universities in the chart are AAU member institutions. (See Appendix A for complete AAU member list.) The AAU public and private institution averages and the Big Ten institution averages are based on all respective member institutions, not only those in the chart.

1 A list of the peers used for comparison on this page is published in Appendix A.
During the 2020-21 academic year, Michigan students took advantage of many opportunities to join communities of common intellectual interest to enhance their educational experiences.

8.3 Student Participation in Michigan Learning Communities, 2020-21.

<table>
<thead>
<tr>
<th>Program</th>
<th>First-years</th>
<th>Sophomores</th>
<th>Juniors</th>
<th>Seniors</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPREHENSIVE STUDIES PROGRAM: This program provides small</td>
<td>609</td>
<td>763</td>
<td>771</td>
<td>866</td>
<td>3,009</td>
</tr>
<tr>
<td>enriched courses, academic advising and academic support and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tutoring.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEALTH SCIENCES SCHOLARS PROGRAM: For students seeking to</td>
<td>112</td>
<td>27</td>
<td>5</td>
<td>1</td>
<td>145</td>
</tr>
<tr>
<td>explore the health sciences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLOBAL SCHOLARS PROGRAM: Prepares students to be intercultur-</td>
<td>-</td>
<td>55</td>
<td>38</td>
<td>32</td>
<td>125</td>
</tr>
<tr>
<td>ally competent global citizens, champions for meaningful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>change, and innovative leaders of tomorrow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIVING ARTS: Brings together students in engineering, the</td>
<td>62</td>
<td>20</td>
<td>4</td>
<td>-</td>
<td>86</td>
</tr>
<tr>
<td>arts, and other fields to explore creativity and innovation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LLOYD HALL SCHOLARS PROGRAM: For students to pursue creative</td>
<td>105</td>
<td>31</td>
<td>7</td>
<td>10</td>
<td>153</td>
</tr>
<tr>
<td>expression through writing, the visual arts, and cultural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and social involvement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAX KADE GERMAN RESIDENCE: Students practice German every</td>
<td>-</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>day while living in a dedicated house that offers unique</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cultural events and a trip to a German-speaking country.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MICHIGAN COMMUNITY SCHOLARS PROGRAM: For students interested</td>
<td>83</td>
<td>47</td>
<td>17</td>
<td>2</td>
<td>149</td>
</tr>
<tr>
<td>in community service, civic engagement, and social justice.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MICHIGAN RESEARCH AND DISCOVERY SCHOLARS: For students</td>
<td>101</td>
<td>35</td>
<td>3</td>
<td>1</td>
<td>140</td>
</tr>
<tr>
<td>interested in a research partnership with a faculty member</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and a small, diverse, and supportive residential community.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENTIAL COLLEGE: A small four-year program with an</td>
<td>168</td>
<td>158</td>
<td>156</td>
<td>176</td>
<td>658</td>
</tr>
<tr>
<td>emphasis on languages, writing, and the arts. Students live</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>together in the RC residence hall their first two years.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM: Students</td>
<td>458</td>
<td>551</td>
<td>262</td>
<td>34</td>
<td>1,305</td>
</tr>
<tr>
<td>participate in research, working with faculty from all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>academic fields.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOMEN IN SCIENCE AND ENGINEERING RESIDENCE PROGRAM (WISE-RP):</td>
<td>87</td>
<td>30</td>
<td>2</td>
<td>2</td>
<td>121</td>
</tr>
<tr>
<td>For students with interests in the sciences, technology,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>engineering, mathematics, and health fields.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: Program Offices

Michigan Learning Communities are generally self-selected groups of students and faculty, often from diverse backgrounds, drawn together by shared goals and common intellectual interests. These programs combine the personal attention of a small college environment while still providing the resources of a large research university. In some communities, the members live in the same residence hall during the academic year.

More information is posted online. Michigan Learning Communities (lsa.umich.edu/mlc) Living Learning/Theme Communities (housing.umich.edu/themes-mlcs/)

^2 WISE-RP is designed for girls, women and non-binary individuals but is open to all undergraduate students.
The COVID-19 pandemic interrupted the education abroad starting in March 2020. Participation has started to pick up in the 2021-22 academic year.

8.4.1 Student Participation in Education Abroad, Academic Years 2015-2022.

Although the pandemic put a halt to campus-related travel for the last half of academic year 2019-20, U-M student participation in education abroad was impressive prior to the interruption. It has started to improve as more study abroad programs have restarted.

The phrase “education abroad” refers to students who received academic credit for educational programs they attended abroad, or participated in research, internship, volunteer service, work opportunities, and conferences and professional meetings abroad as not-for-credit activities. The counts in the chart encompass both undergraduate- and graduate-level programs.

U-M students traveled to 113 countries for international experiences during the 2021-22 academic year.

8.4.2 Top Ten Education Abroad Destinations, Student Count by Country, 2021-22.


Numbers in parentheses indicate the number of students who visited that country at least once during the academic year.

The level of all study and other educational travel abroad has been increasing since the pandemic has subsided.
Many graduating seniors report that compared to when they started at U-M, they increased involvement in and have a greater understanding of global or international topics.

### 8.4.3 Self-Reported Learning Gains of Graduating Seniors in Understanding Global Issues from Time of Initial U-M Enrollment Compared to Senior Year, 2009-2019.

<table>
<thead>
<tr>
<th>Year</th>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very poor</th>
<th>Change in Good, Very Good, and Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+34%</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+51%</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+51%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+40%</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+42%</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+44%</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+39%</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+41%</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+43%</td>
</tr>
</tbody>
</table>

**SOURCE:** U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the change in the fractions of seniors who replied “Excellent,” “Very Good,” and “Good” (the segments in shades of blue) comparing their learning gains from the time of initial enrollment compared to senior year.

**Note:** This question was not included in the most recent UMAY survey conducted in 2022.
Seniors express high levels of satisfaction with the quality of instruction they have received, the availability of small classes and engagement with faculty members.

8.5 Self-Reported Satisfaction of Graduating Seniors with Instructional Quality and Faculty Interaction, 2009-2022.

**How satisfied are you with the quality of faculty instruction?**

- **2022**:
  - Very satisfied: 23%
  - Satisfied: 50%
  - Somewhat satisfied: 20%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 93%
- **2019**:
  - Very satisfied: 18%
  - Satisfied: 46%
  - Somewhat satisfied: 25%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 90%
- **2017**:
  - Very satisfied: 22%
  - Satisfied: 48%
  - Somewhat satisfied: 21%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 91%
- **2015**:
  - Very satisfied: 21%
  - Satisfied: 47%
  - Somewhat satisfied: 23%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 92%
- **2014**:
  - Very satisfied: 19%
  - Satisfied: 49%
  - Somewhat satisfied: 23%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 91%
- **2013**:
  - Very satisfied: 23%
  - Satisfied: 46%
  - Somewhat satisfied: 22%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 91%
- **2011**:
  - Very satisfied: 25%
  - Satisfied: 49%
  - Somewhat satisfied: 17%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 91%
- **2010**:
  - Very satisfied: 23%
  - Satisfied: 49%
  - Somewhat satisfied: 20%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 92%
- **2009**:
  - Very satisfied: 22%
  - Satisfied: 49%
  - Somewhat satisfied: 19%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 91%

**How satisfied are you with access to small classes?**

- **2022**:
  - Very satisfied: 19%
  - Satisfied: 31%
  - Somewhat satisfied: 25%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 75%
- **2019**:
  - Very satisfied: 14%
  - Satisfied: 35%
  - Somewhat satisfied: 27%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 76%
- **2017**:
  - Very satisfied: 17%
  - Satisfied: 36%
  - Somewhat satisfied: 25%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 77%
- **2015**:
  - Very satisfied: 18%
  - Satisfied: 39%
  - Somewhat satisfied: 23%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 80%
- **2014**:
  - Very satisfied: 16%
  - Satisfied: 37%
  - Somewhat satisfied: 24%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 77%
- **2013**:
  - Very satisfied: 19%
  - Satisfied: 37%
  - Somewhat satisfied: 25%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 81%
- **2011**:
  - Very satisfied: 21%
  - Satisfied: 43%
  - Somewhat satisfied: 19%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 82%
- **2010**:
  - Very satisfied: 20%
  - Satisfied: 41%
  - Somewhat satisfied: 22%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 83%
- **2009**:
  - Very satisfied: 18%
  - Satisfied: 38%
  - Somewhat satisfied: 24%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 80%

**How satisfied are you with access to faculty outside of class?**

- **2022**:
  - Very satisfied: 20%
  - Satisfied: 48%
  - Somewhat satisfied: 24%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 92%
- **2019**:
  - Very satisfied: 17%
  - Satisfied: 44%
  - Somewhat satisfied: 27%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 88%
- **2017**:
  - Very satisfied: 19%
  - Satisfied: 44%
  - Somewhat satisfied: 25%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 88%
- **2015**:
  - Very satisfied: 20%
  - Satisfied: 47%
  - Somewhat satisfied: 24%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 90%
- **2014**:
  - Very satisfied: 17%
  - Satisfied: 47%
  - Somewhat satisfied: 26%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 90%
- **2013**:
  - Very satisfied: 22%
  - Satisfied: 46%
  - Somewhat satisfied: 24%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 91%
- **2011**:
  - Very satisfied: 24%
  - Satisfied: 47%
  - Somewhat satisfied: 22%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 92%
- **2010**:
  - Very satisfied: 22%
  - Satisfied: 50%
  - Somewhat satisfied: 20%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 92%
- **2009**:
  - Very satisfied: 23%
  - Satisfied: 44%
  - Somewhat satisfied: 23%
  - Sum of Very Satisfied, Satisfied, and Somewhat Satisfied: 90%

**SOURCE:** U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the fraction of students who replied "Very Satisfied," "Satisfied," and "Somewhat Satisfied" (the segments shaded in blue) for the particular question and year.
During the 2020-21 academic year, nearly all U-M seniors reported they engaged in learning activities outside the traditional settings.

8.6.1 Graduating Seniors in 2020-21 Who Reported Engaged Learning Experiences While at the U-M.

<table>
<thead>
<tr>
<th>Engaged Learning Experience</th>
<th>Percentage of Graduating Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Type of Engaged Learning Experience</td>
<td>95%</td>
</tr>
<tr>
<td>Internship, Practicum, or Clinical Experience</td>
<td>75%</td>
</tr>
<tr>
<td>Civic Engagement</td>
<td>53%</td>
</tr>
<tr>
<td>Research Experience</td>
<td>45%</td>
</tr>
<tr>
<td>International Experience</td>
<td>42%</td>
</tr>
<tr>
<td>Client-based Project Experience</td>
<td>39%</td>
</tr>
<tr>
<td>Creative Work</td>
<td>34%</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>22%</td>
</tr>
</tbody>
</table>

SOURCE: Engaged Learning Census (ELC)

8.6.2 Self-Reported Satisfaction of Graduating Seniors with the Opportunities for Research or Creative Activity Experiences, 2009-2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Somewhat satisfied</th>
<th>Somewhat dissatisfied</th>
<th>Dissatisfied</th>
<th>Very dissatisfied</th>
<th>Sum of Good, Very Good, and Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>22%</td>
<td>39%</td>
<td>25%</td>
<td>31%</td>
<td>14%</td>
<td>3%</td>
<td>85%</td>
</tr>
<tr>
<td>2019</td>
<td>14%</td>
<td>34%</td>
<td>25%</td>
<td>31%</td>
<td>14%</td>
<td>3%</td>
<td>79%</td>
</tr>
<tr>
<td>2017</td>
<td>18%</td>
<td>35%</td>
<td>27%</td>
<td>31%</td>
<td>13%</td>
<td>3%</td>
<td>80%</td>
</tr>
<tr>
<td>2015</td>
<td>19%</td>
<td>35%</td>
<td>26%</td>
<td>31%</td>
<td>13%</td>
<td>3%</td>
<td>80%</td>
</tr>
<tr>
<td>2014</td>
<td>18%</td>
<td>36%</td>
<td>27%</td>
<td>31%</td>
<td>14%</td>
<td>3%</td>
<td>81%</td>
</tr>
<tr>
<td>2013</td>
<td>22%</td>
<td>40%</td>
<td>28%</td>
<td>31%</td>
<td>13%</td>
<td>3%</td>
<td>90%</td>
</tr>
<tr>
<td>2011</td>
<td>21%</td>
<td>39%</td>
<td>24%</td>
<td>31%</td>
<td>14%</td>
<td>3%</td>
<td>83%</td>
</tr>
<tr>
<td>2010</td>
<td>18%</td>
<td>36%</td>
<td>25%</td>
<td>31%</td>
<td>13%</td>
<td>3%</td>
<td>80%</td>
</tr>
<tr>
<td>2009</td>
<td>17%</td>
<td>37%</td>
<td>24%</td>
<td>31%</td>
<td>14%</td>
<td>3%</td>
<td>77%</td>
</tr>
</tbody>
</table>

SOURCE: U-M Asks You (UMAY) undergraduate survey

Chart 8.6.1 reports the responses of graduating seniors to the Engaged Learning Census (ELC), a seven-item questionnaire asking about participation in high-impact engaged learning experiences. This survey was originally called the Graduate Exit Census Survey.

Chart 8.6.2 show the levels of satisfaction that seniors report through the U-M Asks You (UMAY) survey regarding the opportunities to participate in a research project or other creative activity, usually with a faculty member. The percentage to the right of each bar is the fraction of students who replied "Very Satisfied," Satisfied," and "Somewhat Satisfied" (the segments shaded in blue) for the particular year.
Students reported gains in their academic skills and knowledge between the time they started at Michigan and their senior year.

8.7 Self-Reported Learning Gains of Graduating Seniors from Time of Initial U-M Enrollment Compared to Senior Year, 2022.

8.7 Self-Reported Learning Gains of Graduating Seniors from Time of Initial U-M Enrollment Compared to Senior Year, 2022.

SOURCE: U-M Asks You (UMAY) undergraduate survey

The percentage to the right of each bar is the difference between “When started” and “Now” for the sum of the responses “Excellent,” “Very Good,” and “Good” (the segments in shades of blue).