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. Michigan offers an array of opportunities to explore new intellectual territory, understand our global community, and learn through hands-on research and service projects. Faculty members bring tremendous depth to the classroom and other interactions with students as they share the latest in research and scholarship.

Overview
Instruction of students is a shared activity involving tenured and tenure-track faculty (3,136), lecturers (1,044), clinical-instructional faculty (2,268), other instructional faculty (258), and graduate student instructors (2,190), 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.

The institution must certainly support the development of all of 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, work effectively with individuals from diverse backgrounds and cultures, and have command of new 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 UMAY (University of Michigan Asks You). UMAY asks students to report about their satisfaction with academic programs, their sense of knowledge gain, and their opportunities to learn outside of the classroom. Data from several 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 2021.
8.1.2 Instructional Workforce Full-Time Equivalents (FTEs) by Job Family, Fall 2021.
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 2020.
8.3 Student Participation in Michigan Learning Communities, 2020-21.
8.4.1 Student Participation in Education Abroad, Academic Years 2015-2021.
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.
Tenured and tenure-track faculty members have the primary responsibility for instruction, while often working closely with lecturers, graduate student instructors and other instructional faculty.

**8.1.1 Instructional Workforce Headcount by Job Family, Fall 2021.**

![Pie chart showing distribution of instructional workforce headcount by job family.](image)

### Source: U-M Human Resources Data

"Other Instructional Faculty" includes not-on-track regular faculty, supplemental instructional faculty, and adjunct lecturers. This chart does not include research-track faculty and emeritus faculty.

**8.1.2 Instructional Workforce Full-Time Equivalents (FTEs) by Job Family, Fall 2021.**

![Pie chart showing distribution of instructional workforce FTEs by job family.](image)

### Source: U-M Human Resources Data

"Other Instructional Faculty" includes not-on-track regular faculty, supplemental instructional faculty, and adjunct lecturers. This chart does not include research-track faculty and emeritus faculty.
U-M’s ratio of undergraduate students-to-faculty is better than the averages of AAU public and Big Ten institutions.

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 2020.

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


1 A list of the peers used for comparison on this page is published in Appendix A.
Michigan students take 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 enriched courses, academic advising and academic support and tutoring.</td>
<td>609</td>
<td>763</td>
<td>771</td>
<td>866</td>
<td>3,009</td>
</tr>
<tr>
<td>HEALTH SCIENCES SCHOLARS PROGRAM: For students seeking to explore the health sciences.</td>
<td>112</td>
<td>27</td>
<td>5</td>
<td>1</td>
<td>145</td>
</tr>
<tr>
<td>GLOBAL SCHOLARS PROGRAM: Prepar[es students to be interculturally competent global citizens, champions for meaningful change, and innovative leaders of tomorrow.</td>
<td>-</td>
<td>55</td>
<td>38</td>
<td>32</td>
<td>125</td>
</tr>
<tr>
<td>LIVING ARTS: Brings together students in engineering, the arts, and other fields to explore creativity and innovation.</td>
<td>62</td>
<td>20</td>
<td>4</td>
<td>-</td>
<td>86</td>
</tr>
<tr>
<td>LLOYD HALL SCHOLARS PROGRAM: For students to pursue creative expression through writing, the visual arts, and cultural and social involvement.</td>
<td>105</td>
<td>31</td>
<td>7</td>
<td>10</td>
<td>153</td>
</tr>
<tr>
<td>MAX KADE GERMAN RESIDENCE: Students practice German every day while living in a dedicated house that offers unique cultural events and a trip to a German-speaking country.</td>
<td>-</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>MICHIGAN COMMUNITY SCHOLARS PROGRAM: For students interested in community service, civic engagement, and social justice.</td>
<td>83</td>
<td>47</td>
<td>17</td>
<td>2</td>
<td>149</td>
</tr>
<tr>
<td>MICHIGAN RESEARCH AND DISCOVERY SCHOLARS: For students interested in a research partnership with a faculty member and a small, diverse, and supportive residential community.</td>
<td>101</td>
<td>35</td>
<td>3</td>
<td>1</td>
<td>140</td>
</tr>
<tr>
<td>RESIDENTIAL COLLEGE: A small four-year program with an emphasis on languages, writing, and the arts. Students live together in the RC residence hall their first two years.</td>
<td>168</td>
<td>158</td>
<td>156</td>
<td>176</td>
<td>658</td>
</tr>
<tr>
<td>UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM: Students participate in research, working with faculty from all academic fields.</td>
<td>458</td>
<td>551</td>
<td>262</td>
<td>34</td>
<td>1,305</td>
</tr>
<tr>
<td>WOMEN IN SCIENCE AND ENGINEERING RESIDENCE PROGRAM: For students with interests in the sciences, technology, engineering, mathematics, and health fields.</td>
<td>87</td>
<td>30</td>
<td>2</td>
<td>2</td>
<td>121</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](lsa.umich.edu/mlc) Living Learning/Theme Communities [housing.umich.edu/themes-mlcs/](housing.umich.edu/themes-mlcs/)
The COVID-19 pandemic interrupted the education abroad starting in March 2020, but the numbers are expected to pick up in the 2021-22 academic year.

8.4.1 Student Participation in Education Abroad, Academic Years 2015-2021.


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 leading up to the interruption. In a report by the Institute of International Education, the U-M ranked fifth nationally among universities in the number of students involved in education abroad during 2019-20.

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.

1 https://opendoorsdata.org/data/us-study-abroad/leading-institutions-by-institutional-type/
U-M students traveled to nearly 77 countries for international experiences in spite of travel limitations due to the COVID-19 pandemic.

8.4.2 Top Ten Education Abroad Destinations, Student Count by Country, 2020-21.


Numbers in parentheses indicate the number of students who visited that country at least once during the academic year. The level of all study abroad declined sharply in 2020-21 due to the pandemic.

Note: The count of students spending time in China includes 216 U-M students participating in the U-M Shanghai Jiao Tong University Joint Institute (UM-SJTU) hosting program.
By the time they reach their senior year, many undergraduates report involvement in and a greater understanding of global or international topics.


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.
Seniors express high levels of satisfaction with the quality of instruction they have received, the availability of small classes and in their contact with faculty members beyond the classroom and laboratory.


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.

- **How satisfied are you with the quality of faculty instruction?**
  - 2019: 20% Very satisfied, 50% Satisfied, 22% Somewhat satisfied
  - 2018: 18% Very satisfied, 46% Satisfied, 25% Somewhat satisfied
  - 2017: 22% Very satisfied, 48% Satisfied, 21% Somewhat satisfied
  - 2015: 21% Very satisfied, 47% Satisfied, 23% Somewhat satisfied
  - 2014: 19% Very satisfied, 49% Satisfied, 23% Somewhat satisfied
  - 2013: 23% Very satisfied, 46% Satisfied, 22% Somewhat satisfied
  - 2011: 25% Very satisfied, 49% Satisfied, 17% Somewhat satisfied
  - 2010: 23% Very satisfied, 49% Satisfied, 20% Somewhat satisfied
  - 2009: 22% Very satisfied, 49% Satisfied, 19% Somewhat satisfied

- **How satisfied are you with access to small classes?**
  - 2019: 14% Very satisfied, 35% Satisfied, 27% Somewhat satisfied
  - 2018: 17% Very satisfied, 38% Satisfied, 25% Somewhat satisfied
  - 2017: 17% Very satisfied, 36% Satisfied, 25% Somewhat satisfied
  - 2015: 18% Very satisfied, 39% Satisfied, 23% Somewhat satisfied
  - 2014: 16% Very satisfied, 37% Satisfied, 24% Somewhat satisfied
  - 2013: 19% Very satisfied, 37% Satisfied, 25% Somewhat satisfied
  - 2011: 21% Very satisfied, 43% Satisfied, 19% Somewhat satisfied
  - 2010: 20% Very satisfied, 41% Satisfied, 22% Somewhat satisfied
  - 2009: 18% Very satisfied, 38% Satisfied, 24% Somewhat satisfied

- **How satisfied are you with access to faculty outside of class?**
  - 2019: 17% Very satisfied, 44% Satisfied, 27% Somewhat satisfied
  - 2018: 22% Very satisfied, 43% Satisfied, 21% Somewhat satisfied
  - 2017: 19% Very satisfied, 44% Satisfied, 25% Somewhat satisfied
  - 2015: 20% Very satisfied, 47% Satisfied, 24% Somewhat satisfied
  - 2014: 17% Very satisfied, 47% Satisfied, 26% Somewhat satisfied
  - 2013: 22% Very satisfied, 46% Satisfied, 24% Somewhat satisfied
  - 2011: 24% Very satisfied, 47% Satisfied, 22% Somewhat satisfied
  - 2010: 22% Very satisfied, 50% Satisfied, 20% Somewhat satisfied
  - 2009: 23% Very satisfied, 44% Satisfied, 23% Somewhat satisfied

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

Chapter 8 – Teaching & Learning (18th Edition)
Nearly all seniors participate in learning activities outside the traditional classroom while at Michigan.

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

<table>
<thead>
<tr>
<th>Type of 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, 2009-2019.

<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>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>14%</td>
<td>34%</td>
<td>31%</td>
<td>29%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>19%</td>
<td>38%</td>
<td>29%</td>
<td>27%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>18%</td>
<td>35%</td>
<td>27%</td>
<td>26%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>19%</td>
<td>35%</td>
<td>26%</td>
<td>28%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>18%</td>
<td>36%</td>
<td>27%</td>
<td>28%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>22%</td>
<td>40%</td>
<td>28%</td>
<td>29%</td>
<td></td>
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</tr>
<tr>
<td>2011</td>
<td>21%</td>
<td>39%</td>
<td>24%</td>
<td>25%</td>
<td></td>
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</tr>
<tr>
<td>2010</td>
<td>18%</td>
<td>36%</td>
<td>24%</td>
<td>25%</td>
<td></td>
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</tr>
<tr>
<td>2009</td>
<td>17%</td>
<td>37%</td>
<td>24%</td>
<td>25%</td>
<td></td>
<td></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 shows 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 report 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, 2019.

**Analytical and Thinking Skills**
- **When started**: 4% Excellent, 16% Very good, 43% Good, 27% Poor, 2% Very poor
- **Now**: 17% Excellent, 50% Very good, 27% Good, 2% Poor, 3% Very poor
- Change in Good or Higher: +29%

**Ability to be Clear and Effective When Writing**
- **When started**: 5% Excellent, 21% Very good, 39% Good, 30% Poor, 5% Very poor
- **Now**: 18% Excellent, 41% Very good, 31% Good, 12% Poor, 3% Very poor
- Change in Good or Higher: +25%

**Understanding of a Specific Field of Study**
- **When started**: 3% Excellent, 9% Very good, 26% Good, 33% Poor, 2% Very poor
- **Now**: 22% Excellent, 42% Very good, 26% Good, 11% Poor, 2% Very poor
- Change in Good or Higher: +52%

**Quantitative Skills (Mathematical and Statistical)**
- **When started**: 5% Excellent, 19% Very good, 37% Good, 28% Poor, 3% Very poor
- **Now**: 9% Excellent, 25% Very good, 35% Good, 23% Poor, 4% Very poor
- Change in Good or Higher: +8%

**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).