

# Worcester Polytechnic Institute

## Space Program for a New Academic Building

Worcester, Massachusetts



| Room Capacity | 8:00 AM | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM |
|---------------|---------|---------|----------|----------|----------|---------|---------|---------|---------|
| 195+          | W       | W       | W        | N/A      | WF       | W       | W       | N/A     | N/A     |
|               | W       | N/A     | TR       | W        | W        | TR      | W       | MTWRF   | MTWRF   |
|               | N/A     | N/A     | W        | N/A      | N/A      | W       | N/A     | W       | N/A     |
| 70-102        | MTWRF   | W       | W        | N/A      | W        | N/A     | MWRF    | WR      | MTWRF   |
|               | MTWRF   | W       | N/A      | N/A      | W        | N/A     | N/A     | W       | TR      |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | W       | N/A     | W       | TR      |
|               | MTWRF   | N/A     | W        | N/A      | MTWRF    | TW      | TR      | MWRF    | TR      |
|               | MTWRF   | N/A     | N/A      | N/A      | W        | W       | W       | W       | W       |
|               | N/A     | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
| 40-60         | MTWRF   | W       | N/A      | W        | W        | W       | W       | W       | W       |
|               | N/A     | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | W       |
|               | MTWRF   | N/A     | N/A      | W        | W        | W       | W       | W       | W       |
|               | W       | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | MTWRF   | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
| 25-30         | MTWRF   | W       | W        | N/A      | W        | W       | W       | W       | N/A     |
|               | N/A     | N/A     | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | MTWRF   | W       | N/A      | N/A      | N/A      | N/A     | N/A     | N/A     | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |
|               | W       | W       | W        | W        | W        | W       | W       | W       | N/A     |

### Project Information

Completion Date  
March 2019

Services Provided  
Space Program

Worcester Polytechnic Institute retained Rickes Associates to develop a space program for the new Smart World Institute building, to support the creation of integrated solutions to real-world problems using computational methods.

Worcester Polytechnic Institute (WPI) is a private research university in Massachusetts. Its academic programs center on the instruction and research of technical arts and applied sciences, with a focus on project-based problem solving. At the time of this study, enrollment was 6,400 graduate and undergraduate students. The urban campus consists of over 70 buildings, including residential, occupying a hill overlooking New England's second-largest city.

The new academic building is envisioned as a dual-function facility. It is intended to house multiple departments to form a "Smart World Institute." With a focus on collaboration and partnerships, the Institute will apply data-driven technologies to solving real-world problems. It will also house an integrated Student Academic Services Center, connecting offices such as the Registrar, Academic Advising, and Career Development Center.

The first task for Rickes Associates was to confirm the need for instructional space in the new building, including classrooms, computer labs, and robotics labs. An Instructional Space Utilization Analysis took into account all current teaching spaces on the WPI campus. Up to five active learning classrooms were recommended for inclusion in the new academic building to resolve a campus deficit as well as enable a transition to more interactive pedagogies.

Rickes Associates then worked with WPI to inform the preparation of a space program for the new facility. This included an on-site review of existing academic and administrative suites as well as research labs, coupled with face-to-face interviews with stakeholders. Reviews of similar facilities at peer institutions were undertaken to test proposed space metrics. The deliverable was a descriptive narrative coupled with an Excel spreadsheet indicating the numbers and sizes of teaching, research, offices, and collaboration spaces needed. A building of between 80,000 and 100,000 ASF, dependent upon funding, was proposed. Ground was broken in October 2019.