

# QUALITY AND MANUFACTURING MANAGEMENT

<b>Graduate Program Head</b>	Diane Parente
<b>Program Code</b>	QMM
<b>Campus(es)</b>	Erie (M.M.M.)
<b>Degrees Conferred</b>	Master of Manufacturing Management (M.M.M.)
<b>The Graduate Faculty</b>	View ( <a href="https://secure.gradsch.psu.edu/gpms/?searchType=fac&amp;prog=QMM">https://secure.gradsch.psu.edu/gpms/?searchType=fac&amp;prog=QMM</a> )

Penn State's Master of Manufacturing Management (M.M.M.) degree is offered by the Quality and Manufacturing Management (QMM) program. The degree is offered at Penn State Erie, The Behrend College, and is administered jointly by the School of Engineering and the Black School of Business. This interdisciplinary graduate program is designed to prepare students for careers in manufacturing, consulting, services, and operations. The program is offered in a full-time format and in a flexible scheduling pattern. Full-time study requires twelve months of continuous study starting in July and ending the following June. The flexible scheduling pattern requires approximately 24 months to complete.

Coursework is offered in a blended format of 75 percent online learning, one or two weekend campus visits per semester, and one three-day summer residency for plant visits.

The program develops future executives who possess in-depth, relevant manufacturing knowledge bridging engineering and management. Graduates are afforded a life-changing experience that provides them with a unique set of engineering, business, and quality skills combined with a suite of communication skills critical to management success. Students fuse Six Sigma certification with corporate social responsibility and emotional intelligence to become well-rounded leaders. QMM students develop business plans and analyze and predict corporate financial performance in a global marketplace. They emerge from Penn State as international leaders understanding the fundamentals of materials and processes and project confidence in product and manufacturing system design.

## Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (<https://gradschool.psu.edu/graduate-admissions/how-to-apply/>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>).

The program draws its students from two groups: practicing professionals from industry and individuals who have graduated from, or are currently enrolled in, a business administration, science, or engineering program. Applicants who expect to graduate with a baccalaureate in engineering, science, or business administration may apply for admission to the program in their senior year.

All applicants must have taken the prerequisite mathematics, computer science, and statistics courses or equivalents **prior to** starting the

program. Applicants **cannot** register until they have completed these courses.

The language of instruction at Penn State is English. English proficiency test scores (TOEFL/IELTS) may be required for international applicants. See GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

## Degree Requirements

### Master of Manufacturing Management (M.M.M.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-700 Professional Degree Policies (<https://gradschool.psu.edu/graduate-education-policies/>).

The M.M.M. degree requires 32 credits of course work at the 400, 500, or 800 level, on a part- or full-time basis. The courses are as follows:

Code	Title	Credits
QMM 491	Introduction to Business Concepts for Manufacturing <sup>1</sup>	3
or QMM 492	Introduction to Engineering Design Principles	
QMM 552	Applied Statistical Process Control and Experimental Design	3
QMM 561	Manufacturing Systems Planning and Control I	3
QMM 562	Manufacturing Systems Planning and Control II	3
QMM 581	Manufacturing Processes of Materials	3
QMM 582	Manufacturing and Supply Chain Strategy	3
QMM 593	Field Experience in Manufacturing	2
QMM 851	Quality Management	3
QMM 871	Design Practice for Manufacturing I	3
QMM 872	Design Practice for Manufacturing II	3
QMM 891	Communication and Leadership Skills for Manufacturing Managers	3
<b>Total Credits</b>		<b>32</b>

<sup>1</sup> Both may be required depending on background of the applicant.

## Minor

A graduate minor is available in any approved graduate major or dual-title program. The default requirements for a graduate minor are stated in Graduate Council policies listed under GCAC-600 Research Degree Policies (<https://gradschool.psu.edu/graduate-education-policies/>) and GCAC-700 Professional Degree Policies (<https://gradschool.psu.edu/graduate-education-policies/>), depending on the type of degree the student is pursuing:

- GCAC-611 Minor - Research Doctorate (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-611-minor-research-doctorate/>)
- GCAC-641 Minor - Research Master's (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-641-minor-research-masters/>)
- GCAC-709 Minor - Professional Doctorate (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-700/gcac-709-professional-doctoral-minor/>)

- GCAC-741 Minor - Professional Master's (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-700/gcac-741-masters-minor-professional/>)

## Student Aid

Graduate assistantships available to students in this program and other forms of student aid are described in the Tuition & Funding (<https://gradschool.psu.edu/graduate-funding/>) section of The Graduate School's website. Students on graduate assistantships must adhere to the course load limits (<https://gradschool.psu.edu/graduate-education-policies/gsad/gsad-900/gsad-901-graduate-assistants/>) set by The Graduate School.

A limited number of scholarships and graduate assistantships are available. Many students work full time and take classes part time. In many cases, employers have a tuition-reimbursement plan paying for partial or full tuition. View student aid options (<https://behrend.psu.edu/admissions-financial-aid/financial-aid/incoming-students/graduate/>) available.

## Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Quality and Manufacturing Management (QMM) Course List (<https://bulletins.psu.edu/university-course-descriptions/graduate/qmm/>)

## Contact

<b>Campus</b>	Erie
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<b>Program Website</b>	View ( <a href="http://psbehrend.psu.edu/school-of-engineering/academic-programs/master-of-manufacturing-management/">http://psbehrend.psu.edu/school-of-engineering/academic-programs/master-of-manufacturing-management/</a> )