



Universidad Politécnica de Puerto Rico
Graduate School
Master Program in Manufacturing Competitiveness



M.S.M.C. (Thesis Option)	M.M.C. (Design Project Option)
Core courses: 18 credit-hours Special Area: 12 credit-hours Electives Area: 3 credit-hours Thesis: 6 credit-hours Total: 39 credit-hours	Core courses: 18 credit-hours Special Area: 12 credit-hours Electives Area: 6 credit-hours Design Project: 3 credit-hours Total: 39 credit-hours

Core Courses

GMP 6010 – Professional Writing and Presentations
 MMP 6000 – Advanced Statistics and Quality Improvement¹
 MMP 6002 – Operations Planning and Control¹
 MMP 6006 – Lean Manufacturing
 MMP 6008 – Foundations in Quality Learning and Assurance
 MMP 6052 – Managerial Finances and Cost Accounting²

¹ Students with a Bachelor's degree in Industrial Engineering must substitute this course with an elective course with MMP code.

² Students with a Bachelor's degree in Business Administration must substitute this course with an elective course with MMP code.

Specialization Courses

Quality Management

Must select 12 credits including MMP 6130 which is required

MMP 6130 – Six Sigma
 MMP 6190 – Measuring and Managing Customer Satisfaction and Loyalty
 MMP 6250 – Audit Program Management
 MMP 6256 – Assessment Tools to Improve Business Performance
 MMP 6558 – Machine and Process Characterization
 MMP 6570 – Design & Implementation of Statistical Sampling Plans

Electives Courses*

GMP 6050 – Professional Internship through COOP Program GMP 6510 – Research Methodology MMP 6145 – Lean Six Sigma MMP 6162 – Medical Devices I MMP 6518 – Project Management	MMP 6550 – Ergonomics and Human Factors in the Workplace MMP 6552 – Industrial Safety of OSHA Regulations MMP 6560 – Organizational Behavior MMP 6599 – Special Topics in Manufacturing
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* In addition to the current list of elective courses, the student could select as an elective any course with GMP or MMP code that is not specified as a core or specialization course component requirement

Thesis

MMP 6800 – Thesis
 MMP 6801 – Thesis Extension

Design Project

MMP 6700 – Design Project
 MMP 6701 – Design Project Extension

Contact Information:
 Graduate School

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Core Courses

- GMP 6010 – Professional Writing and Presentations
- MMP 6000 – Advanced Statistics and Quality Improvement¹
- MMP 6002 – Operations Planning and Control¹
- MMP 6006 – Lean Manufacturing
- MMP 6050 – Materials Flow and Logistics
- MMP 6052 – Managerial Finance and Cost Accounting²

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Specialization Courses

Pharmaceutical Products

Must select 12 credits including MMP 6132 which is required

- MMP 6110 – Industry Profile and Business Management of Health Care Products
- MMP 6132 – Manufacture of Pharmaceutical Solid Dosage Forms
- MMP 6180 – Material Handling Automation
- MMP 6224 – Manufacture of Pharmaceutical Parenteral Dosage Forms
- MMP 6230 – Manufacture of Pharmaceutical Semisolid Dosage Forms
- MMP 6234 – GMP's and Regulatory Issues
- MMP 6236 – Packaging Technology
- MMP 6564 – Process Validation and Technology Transfer

Electives Courses*

GMP 6050 – Professional Internship through COOP Program GMP 6510 – Research Methodology MMP 6145 – Lean Six Sigma MMP 6162 – Medical Devices I MMP 6518 – Project Management	MMP 6550 – Ergonomics and Human Factors in the Workplace MMP 6552 – Industrial Safety of OSHA Regulations MMP 6560 – Organizational Behavior MMP 6599 – Special Topics in Manufacturing
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Thesis
MMP 6800 – Thesis MMP 6801 – Thesis Extension

Design Project
MMP 6700 – Design Project MMP 6701 – Design Project Extension

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