

Operations Management of Manufacturing and Services (B.B.A.)

Operations Management of Manufacturing and Services is an area of significant impact in business procedures. The aim of this Program is to provide the student with the knowledge for an effective application of production factors in manufacturing and service activities.

The Program is designed to train professionals in the management of the operations of local and global companies, to use available technology, with emphasis on manufacturing and service operations.

It aims to train professionals who can function in industry and business who appreciate labor diversity and who act ethically, with ecumenical-Christian values and with social responsibility.

The graduate of this Program will demonstrate knowledge in the principles of operations management and will exhibit skills in applying the concepts of the discipline.

Students must pass the required core and major courses with a minimum grade of C.

Competencies Profile of Graduates

Knowledge

To demonstrate knowledge and understanding of:

1. the principles of management of operations of manufacturing and services in a globalized, ethical and ecological environment.
2. the importance of the management of operations of manufacturing and services to maintain to innovation and competitiveness of organizations of production and services.
3. new trends in the discipline and their use in manufacturing and services operations.

Skills

1. To apply the concepts of management of operations of manufacturing and services in the productive administration of organizations of production and services.
2. To use sciences of production and operations in its administration as tools to foment enterprising thought.
3. Apply the concepts of the discipline of the management of manufacturing and service operations to analyze the productive factors for decision making.

Attitudes

1. To value the ethical aspects in the management of production and services.
2. To appreciate the labor diversity as a critical element in the area of production and operations.
3. Possess a proactive attitude towards social responsibility as an entrepreneur and citizen.

The requirements for the Bachelor in Business Administration Degree in Operations Management include the following: (1) 48 general education credits; (2) 41 core course credits, (3) 24 major credits; (4) 6 prescribed distributive (elective concentration) credits; and (5) 6 elective credits, all as set forth in detail on the next page.

Program is authorized to be offered online.

TOTAL COST OF PROGRAM

Tuition	\$25254
Fees	\$3,200

Books	\$3,897
Supplies	<u>\$2,602</u>
Total	\$34.953

REQUIREMENTS FOR THE BACHELOR IN BUSINESS ADMINISTRATION DEGREE IN OPERATIONS MANAGEMENT

General Education Requirements	48 credits
Core Course Requirements	41 credits
Major Requirements	24 credits
Prescribed Distributive Requirements	6 credits
Elective Courses	<u>3 credits</u>
Total	122

Forty-eight (48) credits are required as explained in the section “General Education Requirements for Bachelors’ Degrees.” Students will take the course GEMA 1200 in the Basic Skills in Mathematics category.

Core Course Requirements - 41 credits

ACCT 1161	Introduction to Financial Accounting	4
ACCT 1162	Introduction to Managerial Accounting	4
BADM 1900	Fundamentals of Management	3
BADM 3900	Information Systems in Business	3
BADM 4300	Managerial Economics	3
FINA 2101	Corporate Finance I	3
MAEC 2140	Fundamentals of Quantitative Methods	3
MAEC 2211	Principles of Economics (MICRO)	3
MAEC 2212	Principles of Economics (MACRO)	3
MAEC 2221	Basic Statistics	3
MAEC 2222	Managerial Statistics	3
MKTG 1210	Introduction to Marketing	3
OMSY 3030	Business Communication in Spanish	
or		
OMSY 3040	Business Communication in English	3

Major Requirements - 24 credits

OPMS 3000	Operations Management and Manufacturing Services	3
OPMS 3340	Management Policies and Strategies	3
OPMS 3500	Logistics and Supply Chain Management	3
OPMS 3820	Management Sciences	3
OPMS 4300	Service Operations Management	3
ENTR 2200	Fundamentals of Entrepreneurship	3
OPMS 4500	Project Management	3
HRMA 3200	Labor Security and Hygiene	3

Prescribed Distributive Requirements - 6 credits

Six (6) additional credits in 3000 and 4000 level courses in Business Administration (BADM).

Elective Requirements - 3 credits

An elective course is (i) any course a student takes in any General Education, Major or Prescribed Distributive Course within the student’s degree program, in addition to the courses that the student has taken to satisfy the minimum degree

program requirements in each category and/or (ii) any course in another degree program. Provided that the student must meet course prerequisites and cannot count the same course twice.

Major Course Descriptions, Faculty and Learning Resources (Operations Management)

ACCT 1161 INTRODUCTION TO FINANCIAL ACCOUNTING

Introduction to accounting and its relation to the business environment. Study and application of the accounting system (accounting cycle) in services and retail companies. Financial statement presentation and its utility in decision making. Discussion of general aspects related to internal control, assets, liabilities and capital structures. The use of technology is integrated.

4 credits

BURGOS NIÑO, JOSÉ H. Associate Professor of Finance and Accounting. B. A. in Business Administration, Universidad Interamericana de Puerto Rico; M.B.A. in Finance, Universidad Interamericana de Puerto Rico.

Weygandt, J.J., Kimmel, P.D., Kieso, D.E. (2020). *Accounting Principles*. (14th ed.). John Wiley & Son.

ACCT 1162 INTRODUCTION TO MANAGERIAL ACCOUNTING

Introduction to the fundamentals of managerial accounting as part of the planning, decision making and cost control processes in a company. Construction of budgets and their use in the decision making process. The use of technology is integrated. Prerequisite: ACCT 1161.

4 credits

VÁZQUEZ TORRES, HÉCTOR L. Assistant Professor of Management and Accounting. B. B. A. in Management, Universidad de Puerto Rico; M. B. A. in Management and Accounting, Pontificia Universidad Católica de Puerto Rico.

Weygandt, J.J., Kimmel, P.D., Kieso, D.E. (2020). *Accounting Principles*. (14th ed.). John Wiley & Son.

BADM 1900 FUNDAMENTALS OF MANAGEMENT

Description of organizational fundamentals, development and operations. Emphasis on managerial functions: planning, organization, direction and control. Discussion of topics that affect modern management, such as globalization, ethics, technology, human resource integration, handling of change, competitiveness, and innovation and the handling of diversity. Examples of theory through case studies.

3 credits

VÁZQUEZ TORRES, HÉCTOR L. Assistant Professor of Management and Accounting. B. B. A. in Management, Universidad de Puerto Rico; M. B. A. in Management and Accounting, Pontificia Universidad Católica de Puerto Rico.

Decenzo, D.A., Coulter, A., & Robbins, S.P. (2016). *Fundamentals of Management: Essential Concepts and Application*. Prentice Hall.

BADM 3900 INFORMATION SYSTEMS IN BUSINESS

Study of the foundations and concepts of information systems and their use in organizations. The application of information systems in the solution of problems and their implications in managerial processes. Use of application programs that help in decision making. Sixty hours of lecture-lab. Prerequisites: BADM 1900, GEIC 1010.

3 credits

MUÑIZ RIVERA, EDGARDO L. Assistant Professor of Information Systems. B. B. A. in Management and Computers, Pontificia Universidad Católica de Puerto Rico; M.B.A. in System Information for Management, Universidad del Sagrado Corazón.

Laudon, K. C., & Laudon, J. P. (2023). *Management Information Systems: Managing the Digital Firm*. (17th ed.). Pearson.

BADM 4300 MANAGERIAL ECONOMICS

Application of contemporary economic theory. Use of analytical instruments from other disciplines in the managerial decision-making process. Prerequisites: MAEC 2212, 2221.

3 credits

GIRARDO CONCHA, GERMAN. Full-Time Professor Economics, B.B.A. in Economics, Universidad del Valle, Cali, Colombia; M.A. in Economics, University of Puerto Rico.

Samuelson, W.F., Zagorsky, J.L., & Marks, S.G. (2024). *Managerial Economics*. (10th ed.). Wiley.

FINA 2101 CORPORATE FINANCE I

Study of the basic and contemporary principles of corporate financial management and its use in decisionmaking. Emphasis on the use of mathematical models to determine the present and future value of investments. Use of techniques to evaluate the financing of the company's assets, risk and project performance. Analysis of the structure and cost of capital. Requisites: ACCT 1161 and GEMA 1200.

3 credits

BURGOS NIÑO, JOSÉ H. Associate Professor of Finance and Accounting. B. A. in Business Administration, Universidad Interamericana de Puerto Rico; M. B. A. in Finance, Universidad Interamericana de Puerto Rico.

ORTIZ NEGRÓN, LUIS. Assistant Professor of Finance and Accounting. B. B. A. in Accounting, Universidad Interamericana de Puerto Rico; M. B. A. in Accounting, Universidad Interamericana de Puerto Rico.

Jordan, B., & Westerfield, R. (2021). *Fundamentals of Corporate Finance*. (13th ed.). McGraw-Hill.

MAEC 2140 FUNDAMENTALS OF QUANTITATIVE METHODS

Application of mathematics in business administration. Discussion of the variable concepts, joint theory, linear and quadratic functions, linear models, and exponential and logarithmic functions. Use of linear equation and inequation systems, matrices, and linear programming in problem solving. Prerequisite: GEMA 1200.

3 credits

RIVERA VEGA, LUZ M. Professor of Mathematics. B.S. in Teaching in Mathematics, Pontificia Universidad Católica de Puerto Rico; M.Ed. in Teaching and Curriculum in Mathematics, Pontificia Universidad Católica de Puerto Rico; M.S. in Mathematics, Salem State College Massachusetts; Ed. D. in Teaching in Mathematics, Teachers College, Columbia University.

Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., Cochran, J. J., Fry, M. J., & Ohlmann, J. W. (2016). *Quantitative methods for business*. (13th ed.). Cengage Learning.

MAEC 2211 PRINCIPLES OF ECONOMICS (MICRO)

Basic theories and principles relative to the operation of the market in an economic system with special emphasis on the microanalysis of the individual decision-making economic units. Prerequisite: GEMA 1200.

3 credits

BALZAC CARPENA, RAFAEL. Associate Professor of Economics and Statistics. B.A. in Economics, Universidad Interamericana de Puerto Rico; M.B.A. in Economics, Universidad Interamericana de Puerto Rico; Course in Labor Statistics, New York University; Course in Statistics and Finance, University of Puerto Rico.

Mankiw, N.G. (2020). *Principles of Macroeconomics*. (9th ed.). Cengage Learning.

MAEC 2212 PRINCIPLES OF ECONOMICS (MACRO)

Functioning of the economy as a whole; integration of global economy; principles, hypotheses and theories attempting to explain the macroeconomic process. Prerequisite: MAEC 2211.

3 credits

BALZAC CARPENA, RAFAEL. Associate Professor of Economics and Statistics. B.A. in Economics, Universidad Interamericana de Puerto Rico; M.B.A. in Economics, Universidad Interamericana de Puerto Rico; Course in Labor Statistics, New York University; Course in Statistics and Finance, University of Puerto Rico.

Mankiw, N.G. (2020). *Principles of Macroeconomics*. (9th ed.). Cengage Learning.

MAEC 2221 BASIC STATISTICS

Emphasis on the descriptive aspects of statistical analysis. Collection, organization and presentation of statistical data. Frequency distribution. Measures of central tendency, skewness, kurtosis and dispersion. The normal curve and tables. Prerequisite: GEMA 1200.

3 credits

TORRES NAZARIO, MARCOS. Assistant Professor of Education and Statistics. B.A. in Business Administration, Universidad Interamericana de Puerto Rico; M.A. in Educational Management, Universidad Interamericana de Puerto Rico; Ed.D. in Education with a major in Educational Management, Universidad Interamericana de Puerto Rico.

Lind, D. (2020). *Estadística Aplicada a los Negocios y la Economía*. McGraw-Hill.

MAEC 2222 MANAGERIAL STATISTICS

Time series analysis; analysis of variance; bivariate linear regression and correlation; tests of significance; statistical quality control; and index numbers. Introduction to statistical inference stressed. Prerequisites: MAEC 2140, 2221.

3 credits

BALZAC CARPENA, RAFAEL. Associate Professor of Economics and Statistics. B.A. in Economics, Universidad Interamericana de Puerto Rico; M.B.A. in Economics, Universidad Interamericana de Puerto Rico; Course in Labor Statistics, New York University; Course in Statistics and Finance, University of Puerto Rico.

Lind, D. (2020). *Estadística Aplicada a los Negocios y la Economía*. McGraw-Hill.

MKTG 1210 INTRODUCTION TO MARKETING

Basic concepts of integrated marketing from the conception of the product until its distribution and use. Meeting needs through the process of goods exchange, services and ideas. Variables that organization can and cannot control.

3 credits

BALZAC CARPENA, RAFAEL. Associate Professor of Economics and Statistics. B.A. in Economics, Universidad Interamericana de Puerto Rico; M.B.A. in Economics, Universidad Interamericana de Puerto Rico; Course in Labor Statistics, New York University; Course in Statistics and Finance, University of Puerto Rico.

LABOY VÉLEZ, LILLIAM. Associate Professor of Marketing. B.B.A. in Marketing, Universidad Interamericana de Puerto Rico; M.B.A. in Marketing, Universidad de Puerto Rico; D.B.A. in Marketing, Argosy University.

Armstrong, G., & Kotler, P. (2022). *Principles of Marketing*. (18th ed.). Pearson.

OMSY 3030 BUSINESS COMMUNICATION WORKSHOP IN SPANISH

Development of oral and written communication skills in Spanish. Writing and revision of business documents. Analysis of the basic elements of business communication. A computer will be used for writing and revising business documents. Prerequisites: GESP 1102 or its equivalent, and GEIC 1010.

3 credits

RIVERA APONTE, RITA E. Associate Professor of Office System Management. B.S. in Business Education, Pontificia Universidad Católica de Puerto Rico; M. Ed. in Business Education Management and Supervision, Pontificia Universidad Católica de Puerto Rico; M.A. in Business Education, New York University.

Sánchez, C. (2005). *Redacción Comercial*. San Juan, PR: Editorial UPR.

OMSY 3040 BUSINESS COMMUNICATION WORKSHOP IN ENGLISH

Development of oral and written communication skills in English. Emphasis on writing and revising business documents. Application of the language rules and simple oral practices. A computer will be used for the direct writing and revision of business documents. Prerequisites: GEEN 1102 or its equivalent and GEIC 1010.

3 credits

MÁRQUEZ ESPINET, DELIA. Associate Professor of Office System Management. B.A. in Business Education, Universidad de Puerto Rico; M.A. in Business Education, New York University.

Connelly, M. (2010). *Get Writing-Sentences and Paragraphs*. Cengage.

OPMS 3000 OPERATIONS MANAGEMENT OF MANUFACTURING AND SERVICES

Study of the principles and methods of production and operations management. Examination of the fundamental concepts of operations management in manufacturing and service companies. Application of organizational skills. Examination of the techniques of planning, organization, direction and control of operations processes. Prerequisite: BADM 1900, MAEC 2140

3 credits

COTTO CRUZ, JORGE L. Part-Time Professor of Business Administration, B.S. in Biology, University of Puerto Rico; M.B.A. in Finance, Inter American University of Puerto Rico; M.B.A. in Industrial Management, Inter American University of Puerto Rico.

Stevenson, W.J. (2020). *Operations Management*. (14th ed.). McGraw Hill.

OPMS 3340 MANAGEMENT POLICIES AND STRATEGIES

Behavioral management analysis and commercial ethics as part of the production process at the national and international levels. Application to small businesses.

3 credits

GALARZA RIVERA, MARÍA P. Assistant Professor of Human Resources and Management. B.S.S. in Office Systems, Universidad de Puerto Rico; M.B.A. in International Business, Pontificia Universidad Católica de Puerto Rico; D.B.A. Candidate in Management, Argosy University.

Hitt, M., Ireland, R.D., Hoskisson, R., & Harrison, J. (2023). *Strategic Management: Concepts and Cases: Competitiveness and Globalization*. (14th ed.). Cengage.

OPMS 3500 LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Analysis of the purchase materials, equipment and services functions as the primary activities in production planning, bargaining and contracting principles. Selection and evaluation of supply sources. Computerized purchasing systems. Prerequisites: OPMS 3000

3 credits

VÉLEZ, SAMUEL. Assistant Professor of Industrial Management. B. A. in in Industrial Engineering, Universidad de Puerto Rico; M.B.A. in Industrial Management, Universidad Interamericana de Puerto Rico; Ph.D in progress in Entrepreneur Development in Human Resources, Universidad Interamericana de Puerto Rico.

Christopher, M. (2022). *Logistics and Supply Chain Management*. (6th ed.). Pearson.

OPMS 3820 MANAGEMENT SCIENCE

Application of quantitative methods that are adaptable to production and operations under conditions of certainty, risk and uncertainty to company decision-making. Problem solving using the techniques of linear programming, transportation, allocations, project management, queuing theory, decision analysis and simulation. Prerequisites: MAEC 2140

3 credits

RIVERA VEGA, LUZ M. Professor of Mathematics. B.S. in Teaching in Mathematics, Pontificia Universidad Católica de Puerto Rico; M.Ed. in Teaching and Curriculum in Mathematics, Pontificia Universidad Católica de Puerto Rico; M.S. in Mathematics, Salem State College Massachusetts; Ed. D. in Teaching in Mathematics, Teachers College, Columbia University.

Taylor, B.W. (2021). *Introduction to Management Science*. (13th ed.). Pearson.

OPMS 4300 SERVICE OPERATIONS MANAGEMENT

Study of the principles and methods of service operations management. Examination of the fundamental concepts of Operations Management in service companies and in manufacturing companies with service operations. Examination of the techniques of planning, organization, direction and control of operations processes. Application of organizational skills in operations management. Prerequisites: OPMS 3000

3 credits

VÉLEZ, SAMUEL. Assistant Professor of Industrial Management. B. S. in Industrial Engineering, Universidad de Puerto Rico; M.B.A. in Industrial Management, Universidad Interamericana de Puerto Rico; Ph.D in progress in Entrepreneur Development in Human Resources, Universidad Interamericana de Puerto Rico.

Johnston, R., Shulver, M., Slack, N., & Clark, G. (2020). *Service Operations Management: Improving Service Delivery*. (5th ed.). Pearson

OPMS 4500 PROJECT MANAGEMENT

Examination of the main aspects of project management. Analysis of the fundamental principles of defining the scope, estimation of time, cost and resources of a project. Use of the elements to determine the scope, activities and critical step of projects. Application of techniques for the development of a work plan, schedule and management of time deviations of a project. Prerequisites: OPMS 3000

3 credits

VÉLEZ, SAMUEL. Assistant Professor of Industrial Management. B. S. in Industrial Engineering, Universidad de Puerto Rico; M.B.A. in Industrial Management, Universidad Interamericana de Puerto Rico; Ph.D in progress in Entrepreneur Development in Human Resources, Universidad Interamericana de Puerto Rico.

Erik W. Larson, E.W., & Gray, C.F. (2020). *ISE Project Management: The Managerial Process*. McGraw Hill

ENTR 2200 FUNDAMENTALS OF ENTREPRENEURSHIP

Integral study of companies, emphasizing the following topics: their basic principles, their development process or acquisition and the identification of enterprise opportunities in the real world.

3 credits

GALARZA RIVERA, MARÍA P. Assistant Professor of Human Resources and Management.

B.S.S. in Office Systems, Universidad de Puerto Rico; M.B.A. in International Business,

Pontificia Universidad Católica de Puerto Rico; D.B.A. Candidate in Management, Argosy University.

Hisrich, R.D., Peters, M.P., & Shepherd, D.A. (2020). *Entrepreneurship*. (11th ed.). McGraw-Hill Education.

HRMA 3200 LABOR SECURITY AND HYGIENE

Analysis of the fundamental concepts in security and hygiene in the work environment. Includes industrial and environmental factors and dangers, their effects and their control. Interpretation of federal and state laws, in addition to the standards applicable to the prevention and mitigation of risks that affect health and hygiene in the work environment. Identification of the importance of new information and communication technologies in health and safety activities at work.

3 credits

VÉLEZ, SAMUEL. Assistant Professor of Industrial Management. B. A. in

Industrial Engineering, Universidad de Puerto Rico; M.B.A. in Industrial

Management, Universidad Interamericana de Puerto Rico; Ph.D in progress in

Entrepreneur Development in Human Resources, Universidad Interamericana de Puerto Rico.

Friend, M.A., & Kohn, J.P. (2023). *Fundamentals of Occupational Safety and Health*. (8th ed.). Bernan Press.