

**DOCTOR OF PHARMACY/MASTER OF BUSINESS ADMINISTRATION
(PHARM.D./M.B.A.) DEGREE ^{1,2}**

CURRICULUM

The Joint Doctor of Pharmacy/Master of Business Administration (Pharm.D./M.B.A.) degree curriculum will focus on providing excellent professional education designed to equip students with knowledge, skills, and competencies to compete and exhibit leadership in the dynamic and challenging fields of Pharmacy and other Health Care fields. The curriculum is designed to provide an integrated education in pharmaceutical sciences and business management. Below is the proposed structure of the curriculum of the Joint Pharm. D./M.B.A. Program. ¹

Course Title	Credits	Prerequisite(s)
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First Professional Year (P1) – Fall Semester

Structures & Functions in Therapeutics	3	<i>None</i>
Applied Biomedical Sciences (ABS)	3	<i>None</i>
Drug Informatics	3	<i>None</i>
Pharm. Care I	3	<i>None</i>
Introduction to Pharmacy	2	<i>None</i>
Professionalism Seminar	0	<i>None</i>
<i>* Portfolio 1 Requirements</i>		
Total Credits	14	

First Professional Year (P1) – Spring Semester

Pharmaceutics	4	<i>None</i>
Pharmaceutical Chemistry I (PC I)	3	<i>Structures & Func, ABS</i>
Pharmacological Therapeutics I (PT I)	3	<i>Structures & Func, ABS</i>
Pharm. Sciences Lab	1	<i>None</i>
Principles of Pharm. Admin.	2	<i>None</i>
Team Building/PBL	1	<i>None</i>
<i>*Portfolio 2 Requirements</i>		
Total Credits	14	

First Professional Year (P1) – Summer Semester

**Introductory Pharmacy Practice Experience I Rotation (IPPE I)*

**Portfolio 3 Requirements*

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Course Title	Credits	Prerequisite(s)
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Second Professional Year (P2) – Fall Semester

Biopharmaceutics (Biopharm)	2	PC I, PT I & Pharmaceutics
Biostatistics/Research Methods (Biostats)	4	None
Pharmaceutical Chemistry II (PC II)	3	Structures & Func, ABS
Pharmacological Therapeutics II (PT II)	3	Structures & Func, ABS
Pharm. Care II	3	Pharm. Care I
Elective (Select 1)	3	See Elective page
Professionalism Seminar	0	None
<i>*Portfolio 4 Requirements</i>		
Total Credits	18	

Second Professional Year (P2) – Spring Semester

Integrated Therapeutics IA (IT I A)	2	All courses prior to IT IA
Integrated Therapeutics IB (IT IB)	2	All courses prior to IT IA
Integrated Therapeutics IC (IT IC)		2 All courses
prior to IT IA		
Integrated Therapeutics Lab I (IT I Lab)	3	All courses prior to IT IA
Pharmacokinetics (PK)	4	Biopharm, PC II, & PT II
Pharmacoepidemiology & Outcome Res. (Pharmacoepi)	2	Biostats
Elective (Select 1)	3	See Elective page
Introductory Pharmacy Practice Experience I (IPPE I)	1	Successful completion of
<i>*Portfolio 5 Requirements</i>		
		all courses in the first
		professional year, IPPE I
		Rotation, and Portfolio 1 - 4
Total Credits	19	

Second Professional Year (P2) – Summer Semester

Introductory Pharmacy Practice Experience II Rotation (IPPE II)

**Portfolio 6 Requirements*

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Course Title	Credits	Prerequisite(s)
<hr/> <i>Third Professional Year (P3) – Fall Semester</i> <hr/>		
Integrated Therapeutics IIA (IT IIA)	3	All courses prior to IT IA
Integrated Therapeutics IIB (IT IIB)	3	All courses prior to IT IA
Integrated Therapeutics IIC (IT IIC)	3	All courses prior to IT IA
Integrated Therapeutics Lab II (IT II Lab)	4	All courses prior to IT IA
Pharm. Jurisprudence	2	None
Pharm. Compounding Lecture & Lab	1	Pharmaceutics
Professionalism Seminar	0	None
<i>*Portfolio 7 Requirements</i>		
Total Credits	16	

Third Professional Year (P3) – Spring Semester

Integrated Therapeutics IIIA (IT IIIA)	3	All courses prior to IT IA
Integrated Therapeutics IIIB (IT IIIB)	3	All courses prior to IT IA
Integrated Therapeutics IIIC (IT IIIC)	3	All courses prior to IT IA
Integrated Therapeutics Lab III (IT III Lab)	4	All courses prior to IT IA
Introductory Pharmacy Practice Experience II (IPPE II)	1	successful completion of all courses in the second professional year, IPPE II Rotation, and Portfolio 5-7
<i>*Portfolio 8 Requirements</i>		
Total Credits	14	

Third Professional Year (P3) – Summer Semester

Advanced Pharmacy Practice Experience I (APPE I)	0	Successful completion of <u>all</u> courses up to, and including, the Spring of the third professional year with a minimum cumulative GPA of 2.50; successful passage of the Compulsory Comprehensive Examination; and Portfolio 8
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**Portfolio 9 Requirements*

Total Credits **0**
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CURRICULUM

Course Title	Credits
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Fourth Year MBA Program¹ – Fall Semester

Fall Semester

Financial Accounting	3
Macroeconomics for Business	3
Managerial Communications	3
Organizational Management	3
Statistics	3
Total Credits	15

Fourth Year MBA Program¹ – Spring Semester

Spring Semester

Financial Management	3
Legal Environments	3
Marketing Management	3
Microeconomics for Business	3
Principles of Information Systems	3
Total Credits	15

Fourth Year MBA Program¹ – Summer Semester

Summer Semesters

Management Accounting	3
Production/Operations Research	3
Strategic Management	3
Total Credits	9

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CURRICULUM

Course Title	Credits	Prerequisite(s)
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Fifth Professional Year (P5) – Fall Semester

<p>Advanced Pharmacy Practice Experience II (APPE II) <i>of <u>all</u></i> <i>including</i></p> <p style="text-align: right;"><i>Portfolio 9</i></p>	15	<p><i>Successful completion</i> <i>courses up to, and</i> <i>the Spring of the third</i> <i>professional year with</i> <i>a</i> <i>minimum cumulative</i> <i>GPA of</i> <i>2.50; successful</i> <i>passage of the</i> <i>Compulsory</i> <i>Comprehensive</i> <i>Examination; and</i></p>
<p>Health Care Ethics² <i>*Portfolio 10 Requirements</i></p>	2	<p><i>APPE I</i></p>
Total Credits	17	

Fifth Professional Year (P5) – Spring Semester

<p>Advanced Pharmacy Practice Experience III (APPE III) <i>of <u>all</u></i> <i>including,</i></p> <p style="text-align: right;"><i>Portfolio 10</i></p>	15	<p><i>Successful completion</i> <i>courses up to, and</i> <i>the Spring of the third</i> <i>professional year with</i> <i>a</i> <i>minimum cumulative</i> <i>GPA of 2.50;</i> <i>successful passage of</i> <i>the</i> <i>Compulsory</i> <i>Comprehensive</i> <i>Examination; and</i></p>
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Health Care Ethics²
*Portfolio 11 Requirements

2

APPE I

Total Credits

17

¹ The M.B.A. portion of the curriculum includes a total of 13 courses (total 39 credit hours). The Pharm.D. Degree and the M.B.A. Degree will be awarded jointly.

² This list of required courses and their pre-requisites is effective beginning academic year 2013-14. The College of Pharmacy faculty approved and revised it on May 16, 2013. The faculty reserves the right to modify the curriculum, as appropriate, to reflect the contemporary changes in the profession. This list is subject to change without prior notice.

² HEALTH CARE ETHICS COURSE (2 credits)

Health Care Ethics course is a required interdisciplinary course. Students are required to enroll in this course **either** in the Fall or Spring semester of the 5th professional year of the PharmD / MBA program. It is taught on Wednesdays from 5:00 p.m. to 7:00 p.m. It may be necessary for you to leave your practice site at 4:00 p.m. on Wednesdays to attend. Appropriate arrangements will be made to ensure that you are officially excused from the practice sites.

**JOINT DOCTOR OF PHARMACY/MASTER OF BUSINESS ADMINISTRATION
PROFESSIONAL DEGREE PROGRAM**

COURSE DESCRIPTIONS

Fourth Professional Year (Pharm.D./MBA)—Fall Semester

Financial Accounting (GACC-500) 3 Credits

This course is a study of the basic concepts of accounting with an emphasis on the evaluation of transactions and the preparation and analysis of financial statements, including their use in the management planning and control process.

Macroeconomics for Business (GECN-500) 3 Credits

This course covers the economic forces of change, basic functions of economic system, aggregate economic theory including inflation and unemployment, and national income accounting theory and analysis.

Management Communications (GCOM-500) 3 Credits

This course focuses on the relationship between communication, management, and the traditional functions of business report writing. It examines the theoretical and practical business aspects of oral and written communication. Management communication incorporates integrative applications of written communication and oral presentation skills, report-research design, data collection and analysis, and computer technology.

Organizational Management (GMGT-500) 3 Credits

This course examines the principles, human resources, and structural framework involved in the organization and management of profit and nonprofit organizations. This operational approach to problem solving analyzes motivation, behavior, and leadership within the organizational framework.

Statistics (GIST-501) 3 Credits

This course takes a managerial approach to the use of statistical concepts and data analysis. The course covers topics such as descriptive statistics, probability, bayesian analysis, sampling, statistical inference and correlation and regression analysis. Students are expected to be familiar with the use of personal computer, Office Automation Systems, and will use common statistical software.

Fourth Professional Year (Pharm.D./MBA)—Spring Semester

Financial Management (GFIN-500) 3 Credits

This course develops understanding of and analytical skills related to basic concepts and principles of financial management, with a focus on the valuation of cash flows, the relationship between risk and return, capital budgeting, and working capital management. *Prerequisite: GACC-500.*

Legal Environment of Business (GLAW-500) 3 Credits

This course treats the social, economic, and historical background of the law of contracts, property, sales, secured transactions, negotiable instruments, agency, partnerships, and corporations. The course will also discuss legal and ethical issues relating various organizations and industries such as health and medical, etc.

Marketing Management (GMKT-500) 3 Credits

This course covers the theory and practices related to the management of the marketing function in

business organizations. It examines how the marketing function interfaces with other business functions while emphasizing the planning and implementation activities required to attain marketing goals for the organization. Topics covered include the analysis of marketing opportunities, researching and selecting target markets, developing marketing strategies, operating in the international market, and planning and controlling marketing programs.

Microeconomics for Business (GECN-501) 3 Credits

This course is the investigation of price theory in allocation of resources, market structures, quantitative estimating, business decisions on price and output, and forecasting of costs and profits.

Principles of Information Systems (GIST-500) 3 Credits

This course explores the concepts of modern organizational information systems, and the technologies for implementing these systems. The role of information systems in organizations, particularly in strategic planning, gaining competitive advantage and the use of these systems in business problem solving will also be investigated. The student will be required to analyze cases, write research papers and develop end-user applications using software packages such as word-processing, spreadsheets, databases, presentation graphics and Internet tools.

Fourth Professional Year—Summer Semesters

Managerial Accounting (GACC-501) 3 Credits

This course is an in-depth study of the application of accounting methods to management problems. The course is designed to allow students to gain knowledge, insights, and analytical skills related to the processes managers use in designing, implementing, and using planning and control systems to implement strategies. Topics covered include transfer pricing budget preparation, management compensation, motivation, and goal congruence.

Productions and Operations (GIST-502) 3 Credits

This course is a study of production and service operations from a systems perspective. Production and operations control is presented in the context of corresponding system designs. Specific topics include cellular and lean production/Lean Manufacturing systems, Kanban, quality assurance and control, inventory control, scheduling, deterministic and non-deterministic decision models, Value Engineering, MRP, and TQM. System-wide problem conceptualization and definition methodologies such as quality function deployment and supply chain management are presented. The domain of the evolving supplier-customer integration is examined. Global strategic and competitive issues are discussed. The course uses decision support systems software as appropriate. Students are expected to analyze cases and develop a project using the principles learnt in this course. *Prerequisite: GIST-501.*

Strategic Management (GMGT-590) 3 Credits

This capstone course involves the formulation and implementation of corporate strategy. Topics include long-range planning, acquisitions and mergers, and business policy. *Prerequisite: MBA candidate and final semester.*