



**Master of Science in Pharmacy (Industrial Pharmacy)**

**FIRST YEAR**

**First Semester**

Grade	Course Code	Course Title	Credits	Remarks
_____	Phar 220	Institutional Pharmacy Management	2	2 units lec
_____	Phar 299	Research Methods in Pharmacy	3	1 unit lec, 2 units lab
_____	IP 202	Advanced Pharmaceutical Manufacturing	2	2 units lec; Prerequisite: IP 125
_____	IP 205	Advanced Quality Assurance of Pharmaceuticals	2	2 units lec; Prerequisite: IP 131
		<i>Total:</i>	<b>9</b>	

**Second Semester**

_____	Phar 275	Legal, Regulatory and Ethical Issues in Pharmacy	2	2 units lec
_____	HP 221	Instructional Design in Health Sciences Courses	3	3 units lec (cross-enroll at NTTC)
_____	IP 222	Applied Pharmacokinetics	2	2 units lec; Prerequisite: IP 161
_____	IP 235	Pharmaceutical Plant Design	2	2 units lec
_____	IP 270	Trends in Pharmaceutical Product Development	2	2 units lec; Prerequisite: IP 170 or equivalent
		<i>Total:</i>	<b>11</b>	

**SECOND YEAR**

**First Semester**

Grade	Course Code	Course Title	Credits	Remarks
_____	Phar 297	Graduate Seminar	1	1 unit lec
_____	IP 298	Special Problems in Industrial Pharmacy	3	3 units lec
_____	Elective	see list of qualified electives/cognates	2	
_____	Elective	see list of qualified electives/cognates	2	
		<i>Total:</i>	<b>9</b>	

**Second Semester**

_____	Phar 297.1	Special Topics in Pharmacy Practice	1	1 unit lec
_____	Phar 300	Master's Thesis	6	6 units
		<i>Total:</i>	<b>7</b>	

**Grand Total: 36**

**Qualified Electives/Cognates**

Ph Ch 202	Polyketides, Flavonoids and Terpenoids	3	2 units lec, 1 unit lab
Ph Ch 204	Essential Oils	3	2 units lec, 1 unit lab
Ph Ch 230	Analysis of Phytomedicinals	3	2 units lec, 1 unit lab
Ph Ch 241	Molecular Pharmacology	2	2 units lec
Ph Ch 245	Environmental Toxicology in Pharmacy	2	2 units lec
Ph Ch 281	Pharmaceutical Organic Synthesis	2	2 units lec
IP 241	Advanced Biopharmaceutics	2	2 units lec; Prerequisite: IP 141