

Revised 7/23/07

**PROPOSAL SUMMARY AND ROUTING FORM**

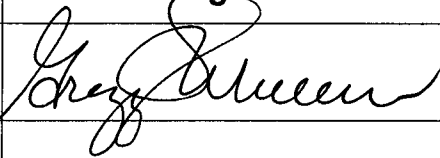

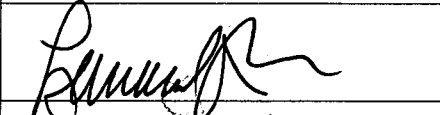
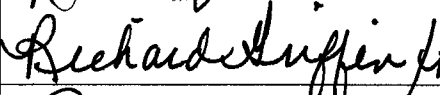

**Proposal Title: PHPR 578: Pharmacy-Based Immunization Delivery**

**Initiating Unit or Individual: Nabila Ahmed-Sarwar, Pharm.D., BCPS, CDE**

**Contact Person's Name: Nabila Ahmed-Sarwar e-mail: nabilaahmed@ferris.edu phone: 231-250-3751**

**Date or Term of Proposal Implementation: Spring 2009**

- Group I - A – New degree/major or major, redirection of a current offering, or elimination of a degree, major or minor
- Group I - B – New minors or concentrations
- Group II - A – Minor curriculum clean-up and course changes
- Group II - B – New Course
- Group III - Certificates
- Group IV – Off-Campus Programs

Group/Individual	Signature	Date	Vote/Action *
College Curriculum Committee		2/15/08	<u>5</u> Support <u>0</u> Support with Concerns <u>0</u> Not Support
College Faculty			<u>35</u> Support <u>0</u> Support with Concerns <u>0</u> Not Support
Dean			<input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with Concerns <input type="checkbox"/> Not Support
University Curriculum Committee		2/13/08	<input checked="" type="checkbox"/> Support <u>7-0</u> <input type="checkbox"/> Support with Concerns <input type="checkbox"/> Not Support
Senate		5/1/08	<input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with Concerns <input type="checkbox"/> Not Support
Academic Affairs		5/4/08	<input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with Concerns <input type="checkbox"/> Not Support

\* Support with Concerns or Not Support must include a list of specific concerns. Votes must be shown for faculty groups. Administrators check appropriate action taken.

<b>To be completed by Academic Affairs</b>		
President (Date Approved)	Board of Trustees (Date Approved)	President's Council (Date Approved)

REC'D MAY 05 2008

**1. Proposal Summary**

(Summary is generally less than one page. Briefly: state what is proposed with a summary of rationale and highlights. Additional rationale may be attached.)

This elective course will provide students with the knowledge and skills required to deliver immunizations and/or serve as an information resource in regards to immunizations and prevention of communicable diseases. Concepts of immunity and immunization will be reviewed with focus on the pharmacist's role in prevention of communicable diseases. Legal and regulatory guidelines in addition to vaccination specific information will be covered. The course will include a combination of online lectures, self-study material, and hands-on training. Upon successful completion of the course, students will receive APhA Immunization certification

**2. Summary of All Course Action Required\***

**a. Newly Created Courses to FSU:**

<b>Prefix</b>	<b>Number</b>	<b>Title</b>
<b>PHPR</b>	<b>578</b>	<b>Pharmacy Based Immunization Delivery</b>

**b. Courses to be Deleted From FSU Catalog:**

<b>Prefix</b>	<b>Number</b>	<b>Title</b>
---------------	---------------	--------------

**c. Existing Course(s) to be Modified:**

<b>Prefix</b>	<b>Number</b>	<b>Title</b>
---------------	---------------	--------------

**d. Addition of existing FSU courses to program**

<b>Prefix</b>	<b>Number</b>	<b>Title</b>
---------------	---------------	--------------

**e. Removal of existing FSU courses from program**

<b>Prefix</b>	<b>Number</b>	<b>Title</b>
---------------	---------------	--------------

## CURRICULUM CONSULTATION FORM

For proposals affecting graduate and professional curricula

1. This completed form should be forwarded with the proposal to the chair of the University Graduate and Professional Council.
2. The University Graduate and Professional Council must respond within 20 calendar days of receipt of this form to insure inclusion in the final proposal. The completed form is returned to the initiator and inserted into the proposal.

**Failure to respond is interpreted as support for the proposal.**

3. The Proposing Department must respond to any concerns by the Council. This response will be in writing and be included in the proposal following the consultation form.

**RE: Proposal Title PHPR 578: Pharmacy-Based Immunization Delivery**

**Initiator(s): Nabila Ahmed-Sarwar, Pharm.D., BCPS, CDE**

**Proposal Contact: Nabila Ahmed-Sarwar, Pharm.D., BCPS, CDE Date Sent: 1/23/08**

**Department: Pharmacy Practice Campus Address: c/o College of Pharmacy, 220 Ferris Dr. BR, Mi  
(Please print)**

**Response from: Graduate and Professional Council**

Chair: \_\_\_\_\_ Date Returned: \_\_\_\_\_

Based upon Graduate and Professional Council review on \_\_\_\_\_(date), we

- Support the above proposal.
- Support the above proposal with the modifications and concerns listed below.
- Do not support the proposal for the reasons listed below.

Comment regarding the impact this proposal has on graduate and professional program issues at the university. Use additional pages, if necessary.

This course is being proposed as an elective. Each student may opt for a total of 6 credit hours of electives which are drawn from a pool of 2-credit courses. This course provides the student with certification in immunization and complements other portions of the curriculum.

## FLITE SERVICES CONSULTATION FORM

To be completed by the liaison librarian and approved by the Dean of FLITE. All returned forms should be included in the proposal. **FLITE must respond within 20 calendar days of receipt of this form to insure that the form is included in the final proposal.**

**FAILURE TO RESPOND IS CONSIDERED AS SUPPORT OF THE CHANGE.**

**RE: Proposal Title:** PHPR 578: Pharmacy-Based Immunization Delivery

**Projected number of students per year affected by proposed change:** 15

**Initiator(s):** Nabila Ahmed-Sarwar, Pharm.D., BCPS, CDE

**Proposal Contact:** Nabila Ahmed-Sarwar, Pharm.D., BCPS, CDE Date Sent: 1/23/08

**Department:** Pharmacy Practice **Campus Address:** c/o College of Pharmacy, 220 Ferris Dr., BR, MI  
(Please print)

**Liaison Librarian Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Dean of FLITE Signature:** \_\_\_\_\_ **Date Returned:** \_\_\_\_\_

Based upon our review on \_\_\_\_\_ (date), FLITE concludes that:

- Library resources to support the proposed curriculum change are currently available.
- Additional Library resources are needed but can be obtained from current funds.
- Support, but significant additional Library funds/resources are required in the amount of \$\_\_\_\_\_.
- Does not support the proposal for reasons listed below.

**Comment regarding the impact this proposal will have on library resources, collection development, programs, etc. Use additional pages if necessary.**

**We are anticipating no substantive additional resources that would be needed for this course above and beyond the current journal holdings.**

## NEW COURSE INFORMATION FORM

*See Sample: Limit to One Page.*

### Course Identification:

**Prefix:            Number            Title**  
**PHPR            578    Pharmacy Based Immunization Delivery**

### Course Description:

Provide students with the knowledge and skills required to deliver immunizations and/or serve as an information resource in regards to immunizations and prevention of communicable diseases.

### Course Outcomes:

- 1) Outline the role of the pharmacist in the provisions of immunizations to the public.
- 2) Explain the immunologic process in terms of how different types of vaccines prevent disease.
- 3) Outline the different immunization schedules for children and adults.
- 4) List the adverse effects and resultant monitoring criteria associated with vaccines.
- 5) Demonstrate the appropriate administration techniques (intramuscular, subcutaneous and intranasal) for vaccines in children and adults.
- 6) List the documentation and records required when providing immunizations.
- 7) List the proper procedures for managing anaphylactic reactions.

### Course Outline including Time Allocation:

#### Introduction/Immunization Resources (2 hr)

- Introduction to online presentation format/independent self-study learning modules/video conference sessions
- Key resources available for immunizations

#### The Importance of Vaccines (2 hr)

- Epidemiology of vaccine-preventable disease (Self-study/lecture)

#### The Pharmacist's Role in Prevention of Communicable Diseases (2 hrs)

- Self-study/lecture, videoconference discussion session

#### Documentation and Record Keeping (2 hrs)

- Self-study/lecture, required reading and group application exercise

#### Planning, Marketing, and Compensation (2 hrs)

- Self-study/lecture, required reading and group application exercise

#### Legal and Regulatory Issues (2 hrs)

- Self-study/lecture, required reading and group application exercise

#### Storage and Management (2 hrs)

- Self-study/lecture and group application exercise
- Group project presentations: Develop a pharmacy based immunization program

#### Vaccine and Antibody Primer (2 hrs)

- Self-study/lecture

#### Vaccination Schedules and Immunization Records (2 hrs)

- Online lecture, videoconference discussion

#### Adverse Reactions, Contraindications, Warnings, and Precautions (2 hrs)

- Self-study, online lecture, case studies, videoconference discussion

#### Epidemiology and Prevention of Viral and Bacterial Diseases (2 hrs)

- Self-study, combination online and live lecture, case studies (tetanus, diphtheria, pertussis, meningitis, etc.)

#### Emergency Preparedness and Epinephrine (2 hrs)

- Self-study, online lecture, videoconference discussion

#### Vaccine Administration Techniques (2 hrs)

- Live lecture and practice lab (intramuscular, subcutaneous, etc.) (4 hrs)

**CREATE NEW COURSE**  
**Course Data Entry Form**

**FORM F**

**Create New Course**  
**Rev. 07/23/07**

**I. ACTION TO BE TAKEN: CREATE A NEW COURSE**

Notes

1. Complete each item in Section I and Section II.
2. If this course is to be used as a prerequisite for other university courses, Form Fs that reflect the prerequisite change must be submitted for those courses as well.

Term Effective (6 digit code only): 200901 Examples: 200801(Spring), 200805(Summer), 200808(Fall)

Note: The first four digits indicate year, the next two digits indicate month in which term begins.

**II. PROPOSED FOR NEW COURSE: Complete all sections a through r. See manual for clarification.**

a. Course Prefix

PHPR

b. Number

578

c. Enter Contact Hours per week in boxes.

LECture 2 LAB  INDEPENDENT Study – Check (x)

Practicum:  Seminar:

d. Course Title: Immunization Delivery

(Limit to 30 characters/spaces.)

e. College Code: PH

f. Department Code: PHAR

Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

g. Type:  Variable  Fixed h. Minimum Credit Hours 2 i. Maximum Credit Hours 2

j. May Be Repeated for Added Credit: Check (x)  Yes  No

k. Levels: Check (x)  Undergraduate  Graduate  Professional

l. Grade Method: Check (x)  Normal Grading  Credit/No Credit only (Pass/Fail)

m. Does proposed new course replace an equivalent course? Check (x)  Yes  No

n. Equivalent course: Prefix  Number  See instructions on Replacement courses.

**o. CATALOG DESCRIPTION – Limit to 75 words – PLEASE BE CONCISE.**

This elective course will provide students with the knowledge and skills required to deliver immunizations and/or serve as an information resource in regards to immunizations and prevention of communicable diseases. The course will include a combination of online lectures, self-study material, and hands-on training. Upon successful completion of the course, students will receive APHA Immunization certification

p. Term(s) Offered: Spring (See instructions for listing.) q. Max. Section Enrollment: 15

r. Prerequisites/Co-requisites/Restrictions: (If none, leave blank.) Limited to 100 spaces. 3<sup>rd</sup> year professional standing.

UCC Chair Signature/Date:

 2/13/08

Academic Affairs Approval Signature/Date:

 5/4/08

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code

Basic Skill (BS)  General Education (GE)  Occupational Education (OC)  G.E. Codes

**Office of the Registrar use ONLY**

Date Rec'd: \_\_\_ Date Completed: \_\_\_ Entered: SCACRSE \_\_\_ SCADETL \_\_\_ SCARRES \_\_\_ SCAPREQ \_\_\_

**FERRIS STATE UNIVERSITY – COLLEGE OF PHARMACY – DOCTOR OF PHARMACY CURRICULUM**  
**Curriculum - Standard Program**

**FERRIS STATE UNIVERSITY – COLLEGE OF PHARMACY – DOCTOR OF PHARMACY CURRICULUM**  
**Curriculum - Accelerated Program**

Professional Year 1 – Fall Semester

4	BIOL331	Clinical Anatomy & Physiology 1
3	PHAD310	The Profession of Pharmacy
3	PHAR325	Pharmaceutics 1
5	PHCH320	Medical Biochemistry
2	PHPR303	Integrated Lab*
17		

\* Note: Areas designated with an asterisk in the curriculum contain early experiential training.

Professional Year 1 – Winter Semester

3	BIOL332	Clinical Anatomy & Physiology 2
3	ENGL321/421	Advanced Composition
4	PHAR326	Pharmaceutics 2
4	PHCH330	Introduction to Drug Action/Diagnostics
2	PHPR304	Integrated Lab*
16		

Professional Year 2 – Fall Semester

4	BIOL387	Clinical Microbiology & Immunology
3	PHAR440	Pharmacokinetics
3	PHCH427	Medicinal Chemistry 1
3	PHCL423	Pharmacology 1
1	PHPR411	Integrated Lab*
2		Pharmacy Elective
16		

Professional Year 2 – Winter Semester

3	PHAD436	Pharmacy Practice Management
3	PHCH428	Medicinal Chemistry 2
4	PHCH430	Chemotherapeutic Agents
4	PHCL424	Pharmacology 2
1	PHPR412	Integrated Lab*
2		Pharmacy Elective
17		

Professional Year 3 – Summer Session (off campus)

2	PHPR592	Institutional Early Pharmacy Practice Experience (Summer before or after this academic year)**
---	---------	---

Professional Year 3 – Fall Semester (off campus)

3	PHAD502	Sociopharmacy
1	PHPR501	Integrated Lab*
2	PHPR514	Clinical Communication
4	PHPR521	Pharmacotherapeutics – Toxicology/Nutrition/Nervous System
3	PHPR522	Pharmacotherapeutics – Cardiovascular/Renal
3	PHPR550	Drug Literature Evaluation/Study Design
2	PHPR591	Community Early Pharmacy Practice Experience**
18		

Professional Year 3 – Winter Semester

3	PHAD550	Pharmacy Law and Ethics
2	PHAD540	Pharmacoeconomics
1	PHPR502	Integrated Lab*
4	PHPR523	Pharmacotherapeutics – Infectious Diseases/Immunology/Oncology
4	PHPR524	Pharmacotherapeutics – Respiratory/Endocrine/ Gastrointestinal
2	PHPR591	Community Early Pharmacy Practice Experience**
2		Pharmacy Elective
18		

\*\* Students complete the community (PHPR591) experience by attending their site one day per week for one semester. The institutional experience (PHPR592) is conducted in 3 week blocks during summer or break. Infrequently, it may be during the alternate semester in the one day per week format.

Professional Year 4

1	PHPR680	Clinical Seminar
32		Clinical Clerkships (see list on back)
33		

Students would start clerkship at the beginning of August. They will complete 8 calendar month clerkships with the month of December off. Students would end in April just before University graduation.

Professional Year 1 – Fall Semester

4	BIOL331	Clinical Anatomy & Physiology 1
3	PHAD310	The Profession of Pharmacy
3	PHAR325	Pharmaceutics 1
5	PHCH320	Medical Biochemistry
2	PHPR303	Integrated Lab*
17		

\* Note: Areas designated with an asterisk in the curriculum contain early experiential training.

Professional Year 1 – Winter Semester

3	BIOL332	Clinical Anatomy & Physiology 2
3	ENGL321/421	Advanced Composition
4	PHAR326	Pharmaceutics 2
4	PHCH330	Introduction to Drug Action/Diagnostics
2	PHPR304	Integrated Lab*
16		

Professional Year 2 – Summer Semester

4	BIOL387	Clinical Microbiology and Immunology
3	PHAD436	Pharmacy Practice Management
3	PHCH427	Medicinal Chemistry 1
3	PHCL423	Pharmacology 1
1	PHPR411	Integrated Lab*
2		Pharmacy Elective
16		

Professional Year 2 – Fall Semester

3	PHAR440	Pharmacokinetics
3	PHCH428	Medicinal Chemistry 2
4	PHCH430	Chemotherapeutic Agents
4	PHCL424	Pharmacology 2
1	PHPR412	Integrated Lab*
2		Pharmacy Elective
17		

Professional Year 3 – Winter Semester (off-campus)

3	PHAD550	Pharmacy Law and Ethics
2	PHAD540	Pharmacoeconomics
1	PHPR502	Integrated Lab*
4	PHPR523	Pharmacotherapeutics – Infectious Diseases/Immunology/Oncology
4	PHPR524	Pharmacotherapeutics – Respiratory/Endocrine/Gastrointestinal
2	PHPR591	Community Early Pharmacy Practice Experience**
2		Pharmacy Elective
18		

Professional Year 3 – Summer Session (off campus)

2	PHPR592	Institutional Early Pharmacy Practice Experience (Summer before or after this academic year)**
---	---------	---

Professional Year 3 – Fall Semester

3	PHAD502	Sociopharmacy
1	PHPR501	Integrated Lab*
2	PHPR514	Clinical Communication
4	PHPR521	Pharmacotherapeutics – Toxicology/Nutrition/Nervous System
3	PHPR522	Pharmacotherapeutics – Cardiovascular/Renal
3	PHPR550	Drug Literature Evaluation/Study Design
2	PHPR591	Community Early Pharmacy Practice Experience**
18		

\*\* Students complete the community (PHPR591) experience by attending their site one day per week for one semester. The institutional experience (PHPR592) is conducted in 3 week blocks during summer or break. Infrequently, it may be during the alternate semester in the one day per week format.

Professional Year 4

1	PHPR680	Clinical Seminar
32		Clinical Clerkships (see list on back)
33		

Students would start clerkship in January. They will complete 8 calendar month clerkships. Students would end in August or September.

# FERRIS STATE UNIVERSITY – COLLEGE OF PHARMACY – DOCTOR OF PHARMACY CURRICULUM

## Pharmacy Electives

2	PHAD350	Community Pharmacy Management
2	PHAD360	Institutional Pharmacy
2	PHAD450	Advanced Community Pharmacy Management
2	PHAD475	Current Controversies in Health Care
2	PHAD482	Pharm Care/Public Health
2	PHAD484	Introduction to Pharmacy Law and Ethics
2	PHAR444	Non-Prescription Drugs and DME
2	PHAR446	Novel Drug Delivery
2	PHAR452	Manufacturing Pharmacy
2	PHAR456	Product Development
2	PHAR458	Chem. Kinetics/Product Stability
2	PHAR462	Pharmaceutics Seminar
2	PHCG352	Introduction to Plant Cell Culture
2	PHCG432	Herbal Remedies and Alternative Therapies
2	PHCG452	Natural Product Toxins
2	PHCG462	Adv. in Natural Product Research
2	PHCG490	Special Topics in PHCG
2	PHCH362	Selected Topics in Biochemistry
2	PHCH452	Special Topics in Medicinal Chemistry
2	PHCH462	Chemical Carcinogenesis
2	PHCH472	Pharmacy and Geriatric Health
2	PHCL352	Selected Topics in Pathophysiology
2	PHCL452	Toxicology
2	PHCL462	Selected Topics in Pharmacology
2	PHPR552	Introduction to Pharmacotherapy Clinics
2	PHPR554	Managed Care Pharmacy Practice
2	PHPR556	Advanced Topics in Infectious Diseases
2	PHPR558	Palliative Care
2	PHPR560	Complementary & Alternative Medicine
2	PHPR564	Evaluating Internet Drug Information Resources
2	PHPR566	Application of Pharmaceutical Care in Comm Practice
2	PHPR568	Advanced Presentations and Teaching Skills
2	PHPR570	Medical Research: Methods and Design
2	PHPR574	Interdisciplinary Comm-based Participatory Research
2	PHPR576	Advance Cardiac Life Support
2	PHPR578	Pharmacy-Based Immunization Delivery
2	PHPR582	Special Populations: Geriatrics and Pediatrics
1	PHPR420	Professional Development Seminar

4	PHPR660	Neonatology
4	PHPR664	Geriatrics Medicine
4	PHPR666	International Advanced Pharmacy Practice Experience
4	PHPR670	Clinical Research

**TOTAL HOURS FOR DEGREE 196**

## Tuition

Semester tuition for the 2006 – 07 academic year has been established as follows for full-time enrollment:

- ♦ Doctoral - Resident - \$462 per credit hour
- ♦ Doctoral - Non-Resident - \$714 per credit hour

## Curricular Highlights

The pharmacy curriculum at Ferris State University is an 8-semester curriculum. Currently, there are two options: a regular four-year track, and an accelerated track that lasts three years plus one semester. In either track, the first four semesters (first two professional years) are taken on the Big Rapids campus. The fifth and sixth semesters (3rd professional year) will be in Grand Rapids or Kalamazoo. The 3rd professional year consists of a combination of classroom and practice experience. Roughly half of the class will be in either location for the 3rd professional year. Due to the split nature of the class, some of the instruction in each site will employ distance-learning techniques to deliver the educational content. The 7th and 8th semesters of the program (the 4th professional year) consists entirely of various practice experiences, and utilizes sites throughout the state of Michigan. The main metropolitan centers that are utilized include Grand Rapids, Kalamazoo, and the Lansing/Flint/Saginaw area.

## Professional Year 4 – Required & Elective Clerkships

### Required Clerkships

4	PHPR600	Internal Medicine 1
4	PHPR601	Internal Medicine 2
4	PHPR602	Ambulatory Care 1
4	PHPR603	Ambulatory Care 2
4	PHPR611	Community Pharmacy

### Elective Clerkships – Choose 3

4	PHPR604	Clinical Pharmacokinetic
4	PHPR605	Academic Pharmacy Experience
4	PHPR606	Drug Information
4	PHPR607	Drug Use Policy
4	PHPR608	Pediatric Medicine
4	PHPR609	Professional Organization Management
4	PHPR610	Institutional Practice
4	PHPR612	Rural Health
4	PHPR613	Community Pharmacy Management
4	PHPR614	Consult/Long-Term Care
4	PHPR615	Hospice Care
4	PHPR616	Homecare
4	PHPR617	Pharmacy Administration Clerkship
4	PHPR618	Managed Care
4	PHPR619	Pain Management
4	PHPR620	Cardiology
4	PHPR621	HIV/AIDS
4	PHPR622	Pulmonary Medicine
4	PHPR623	Trauma Care
4	PHPR624	Critical Care
4	PHPR625	Specialized Areas of Community Pharmacy Practice
4	PHPR626	Veterinary Pharmacy
4	PHPR628	Nuclear Pharmacy
4	PHPR630	Emergency Medicine
4	PHPR632	Surgical Care
4	PHPR636	Nutrition
4	PHPR640	Psychiatry
4	PHPR642	Addiction Medicine
4	PHPR648	Infectious Disease
4	PHPR650	Special Topics in Inpatient Medicine
4	PHPR652	Oncologic Disease
4	PHPR655	Special Topics in Ambulatory Medicine

The information that is provided in this publication is not to be construed either as a contract or as an offer to contract. The College reserves the right to change at any time and without prior notice any provision or requirement including curriculum.

## Curricular Timeline

P-1 Year	P-2 Year	P-3 Year	P-4 Year
First two semesters taught at <b>Big Rapids Campus</b>	Third and fourth semesters taught at <b>Big Rapids Campus</b>	Fifth and sixth semesters taught at one of the following sites:  <b><u>Kalamazoo Site</u></b>  <b><u>Grand Rapids Site</u></b>	Final two semesters taught in <b>variety of pharmacy sites throughout the state</b> (majority taught in Grand Rapids, Kalamazoo, and Lansing areas)