

MEMO

To: Joseph Thompson

From: John Goodpaster, Simon Atkinson, Nigel Richards

CC: Amy Maldi, Christine Picard, Gina Londino, Nick Manicke

Date: October 11, 2013

Re: Request for change in total credit hours for the M.S. in Forensic and Investigative Sciences (FIS)

The Forensic and Investigative Sciences (FIS) Program has been offering Bachelor of Science (B.S.) degrees since its inception in 2004. Subsequently, a Master of Science (M.S.) degree was approved and began taking its first students in 2008. This program offers a thesis-based degree as well as a non-thesis degree, either of which comprises 35 credit hours. Targeted students are those who have completed a Bachelor's degree in a forensic or physical science and who need an additional credential in order to be competitive applicants for positions within forensic science laboratories, those who seek advancement within their organization or students intending to pursue a doctoral degree. Both thesis and non-thesis students take several laboratory courses so that they gain hands-on experience with the latest forensic techniques.

Recently, the FIS Program elected to not accept any new graduate students in 2013 as a tenured faculty member (Jay Siegel) had retired and we were not able to hire his replacement (Nick Manicke) until this fall. That being said, we continue to receive at least five inquiries per week about the M.S. program (via phone, email and web form). Now that we have added Dr. Manicke to the faculty and are currently seeking a tenure-track hire in forensic biology, we are poised to begin accepting new students in Fall 2014.

The sole change we are seeking is to reduce the total number of credit hours for both the thesis and non-thesis M.S. degrees (in both the Forensic Chemistry and Forensic Biology track) from 35 credit hours to 30 credit hours.

The justifications for this change are:

- 1) A shorter M.S. degree would be consistent with other M.S. programs in the School of Science (e.g., Chemistry and Biology). The degree would consist of required FIS

graduate classes as well as electives within the Department of Biology and the Department of Chemistry and Chemical Biology.

- 2) Recent meetings with forensic practitioners have confirmed that a graduate degree is desirable in forensic science laboratories. These meetings also made it clear that a thesis-based M.S. is not always necessary – potential employers are simply seeking a solid scientific education with excellent oral/written communication skills.
- 3) The 30 credit M.S. degree (non-thesis track) would be configured so that it would be intensive – full-time students would be able to complete the degree in 12 months. There would be no financial support for non-thesis students and the tuition for the accelerated M.S. would be set independently. This is directly analogous to the pre-professional M.S. degree in Biology that is currently offered at IUPUI.
- 4) The thesis-based M.S. would remain active and existing financial support would be offered to a select group of these students. As per usual, thesis students will take two years to complete this degree.

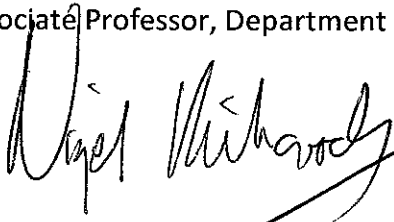
A total of eight example plans of study for students in the thesis-based and non-thesis based M.S. programs as they currently stand and as proposed are included for review. Note that proposed changes to an existing FIS course (FIS 59700) and the introduction of a new FIS course in laboratory management (FIS 50700) are in process separately.

I welcome any questions and can be reached at 317-274-6881 and jvgoodpa@iupui.edu.

Sincerely,



John V. Goodpaster, Ph.D.
Director, Forensic and Investigative Sciences Program
Associate Professor, Department of Chemistry and Chemical Biology



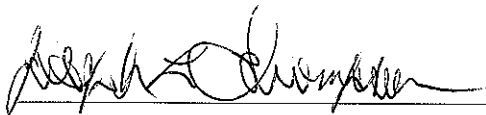
Nigel G. Richards, Ph.D.
Professor and Chair, Department of Chemistry and Chemical Biology



Simon J. Atkinson, Ph.D.
Professor and Chair, Department of Biology


IUPUI
SCHOOL OF SCIENCE
A PURDUE UNIVERSITY SCHOOL
Office of the Dean
Indianapolis

Approval for the proposal for a change in the total credit hours for the M.S. in Forensic and Investigative Sciences (FIS) degree program.

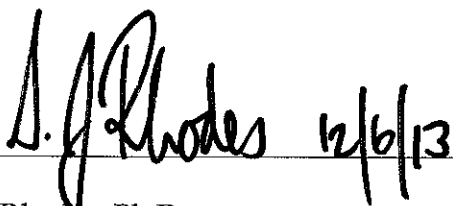


committee approved
11-05-2013

Joseph L. Thompson
Staff Aide to the Graduate Education Committee
School of Science



David G. Skalnik, Ph.D.
Associate Dean for Research & Graduate Education
School of Science



Simon J. Rhodes, Ph.D.
Dean
School of Science

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Request for Master's Degree Advisory Committee and Plan of Study Approval
(Please read instructions on reverse side.)

Pg. _____ of _____ Pgs. Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Chemistry and Chemical Biology Dept. Code CHM Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area Forensic Chemistry

3. AREA OF SPECIALIZATION (if any) Forensic Chemistry AOS Code _____

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <i>Please group courses into "Primary" (P) & "Related" (R) areas.</i>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Chemistry I	FIS	51100	3	X			Fall 1
P	Forensic Chemistry I Lab	FIS	51101	1	X			Fall 1
P	Forensic Chemistry II	FIS	51200	3	X			Spring 1
P	Forensic Chemistry II Lab	FIS	51201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Fall 1
R	Law and Forensic Science	LAW	D774	2	X			Summer 1

Under the current requirements, a thesis-based M.S. student in forensic chemistry takes 11 credit hours of coursework in their primary area (forensic chemistry and microscopy) and 8 credit hours of coursework in related areas. All coursework is typically completed by the end of the first calendar year followed by 16 credit hours of thesis research (FIS 59900) for a total of 35 credit hours.

7. LANGUAGE REQUIREMENTS	Method to be used to meet language requirements	+ Transfer course must be described as on original transcript. * Mark course number with asterisk (*) if B or better is required.
a.	a.	
b.	b.	

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
Chair		Chair			

<input type="checkbox"/> Check here if supplemental notes or other requirements are attached.	13. APPROVED BY:		Graduate School Dean
	Head of the Graduate Program	Date	
12. SIGNATURE OF STUDENT	Date	Academic Dean (if required)	Date

PURDUE UNIVERSITY GRADUATE SCHOOL

Request for Master's Degree Advisory Committee and Plan of Study Approval (Please read instructions on reverse side.)

Pg. _____ of _____ Pgs. Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Chemistry and Chemical Biology Dept. Code CHM Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area Forensic Chemistry

3. AREA OF SPECIALIZATION (if any) Forensic Chemistry AOS Code _____

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <small>Please group courses into "Primary" (P) & "Related" (R) areas.</small>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Chemistry I	FIS	51100	3	X			Fall 1
P	Forensic Chemistry I Lab	FIS	51101	1	X			Fall 1
P	Forensic Chemistry II	FIS	51200	3	X			Spring 1
P	Forensic Chemistry II Lab	FIS	51201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1 or 2
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Fall 2
R	Law and Forensic Science	LAW	D774	2	X			Summer 1
Under the new requirements, a thesis-based M.S. student in forensic chemistry would take 19 credit hours of coursework and complete it over the course of two years. The student would also enroll for 11 credit hours of thesis research (FIS 59900) for a total of 30 credit hours. The total time to complete the degree would be the same (2 years).								

7. LANGUAGE REQUIREMENTS

Method to be used to meet language requirements	+ Transfer course must be described as on original transcript. * Mark course number with asterisk (*) if B or better is required.
a.	a.
b.	b.

8. NAMES OF ADVISORY COMMITTEE MEMBERS <small>(Please type full name.)</small>	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS <small>(Signature)</small>	10. DEPARTMENT	11. ADVISOR IN AREA OF:
			Abbr. Code	
Chair		Chair		

<input type="checkbox"/> Check here if supplemental notes or other requirements are attached.	13. APPROVED BY: _____ Head of the Graduate Program Date	
12. SIGNATURE OF STUDENT Date	Academic Dean (if required) Date	Graduate School Dean

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

(Please type)

Request for Master's Degree Advisory Committee and Plan of Study Approval
(Please read instructions on reverse side.)

Pg. _____ of _____ Pgs. Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Biology Dept. Code BIO Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area Forensic Biology

3. AREA OF SPECIALIZATION (if any) Forensic Biology AOS Code _____

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <i>Please group courses into "Primary" (P) & "Related" (R) areas.</i>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Biology I	FIS	52100	3	X			Fall 1
P	Forensic Biology I Lab	FIS	52101	1	X			Fall 1
P	Forensic Biology II	FIS	52200	3	X			Spring 1
P	Forensic Biology II Lab	FIS	52201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Fall 1
R	Law and Forensic Science	LAW	D774	2	X			Summer 1

Under the current requirements, a thesis-based M.S. student in forensic biology takes 11 credit hours of coursework in their primary area (forensic biology and microscopy) and 8 credit hours of coursework in related areas. All coursework is typically completed by the end of the first calendar year. The student then enrolls for 16 credit hours of thesis research (FIS 59900) for a total of 35 credit hours.

7. LANGUAGE REQUIREMENTS Method to be used to meet language requirements + Transfer course must be described as on original transcript.
* Mark course number with asterisk (*) if B or better is required.

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
Chair		Chair			

Check here if supplemental notes or other requirements are attached.

13. APPROVED BY:
Head of the Graduate Program _____ Date _____
Academic Dean (if required) _____ Date _____

12. SIGNATURE OF STUDENT _____ Date _____ Graduate School Dean _____

PURDUE UNIVERSITY
GRADUATE SCHOOL

(Please type)

Request for Master's Degree Advisory Committee and Plan of Study Approval
(Please read instructions on reverse side.)

Pg. _____ of _____ Pgs.

Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Biology Dept. Code BIO Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area Forensic Biology

3. AREA OF SPECIALIZATION (if any) Forensic Biology AOS Code _____

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <small>Please group courses into "Primary" (P) & "Related" (R) areas.</small>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Biology I	FIS	52100	3	X			Fall 1
P	Forensic Biology I Lab	FIS	52101	1	X			Fall 1
P	Forensic Biology II	FIS	52200	3	X			Spring 1
P	Forensic Biology II Lab	FIS	52201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1 or 2
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Fall 2
R	Law and Forensic Science	LAW	D774	2	X			Summer 1

Under the new requirements, a thesis-based M.S. student in forensic biology would take 19 credit hours of coursework and complete it over the course of two years. The student would also enroll for 11 credit hours of thesis research (FIS 59900) for a total of 30 credit hours. The total time to complete the degree would be the same (2 years).

7. LANGUAGE REQUIREMENTS	Method to be used to meet language requirements	+ Transfer course must be described as on original transcript. * Mark course number with asterisk (*) if B or better is required.
a.	a.	
b.	b.	

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
Chair		Chair			

<input type="checkbox"/> Check here if supplemental notes or other requirements are attached.	13. APPROVED BY:		Graduate School Dean
	Head of the Graduate Program	Date	
12. SIGNATURE OF STUDENT	Date	Academic Dean (if required)	Date

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Request for Master's Degree Advisory Committee and Plan of Study Approval
(Please read instructions on reverse side.)

Pg. _____ of _____ Pgs. Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Chemistry and Chemical Biology Dept. Code CHM Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area N/A

3. AREA OF SPECIALIZATION (if any) Forensic Chemistry AOS Code N/A

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <i>Please group courses into "Primary" (P) & "Related" (R) areas.</i>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Chemistry I	FIS	51100	3	X			Fall 1
P	Forensic Chemistry I Lab	FIS	51101	1	X			Fall 1
P	Forensic Chemistry II	FIS	51200	3	X			Spring 1
P	Forensic Chemistry II Lab	FIS	51201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Fall 1
R	Elective	---	-----	3	X			Fall 1
R	Project Design	FIS	59700	3	X			Spring 1
R	Elective	---	-----	3	X			Spring 1
R	Law and Forensic Science	LAW	D774	2	X			Summer 1
R	Forensic Science Laboratory Management	FIS	-----	2	X			Summer 1

Under the new requirements, a non-thesis M.S. student in forensic chemistry would take 30 credit hours of coursework - completing it in three semesters (Fall, Spring, Summer I). Approved electives would include graduate courses in chemistry. FIS 59700 (Project Design) will be offered as a 3 credit class that will include material on instrument evaluation, method development/validation and optimization. A 2 credit class in lab management will be offered and be team-taught by laboratory directors who currently advise the FIS program.

7. LANGUAGE REQUIREMENTS Method to be used to meet language requirements

a. _____ + Transfer course must be described as on original transcript.
* Mark course number with asterisk (*) if B or better is required.

b. _____

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
Chair		Chair			

Check here if supplemental notes or other requirements are attached.

13. APPROVED BY:

Head of the Graduate Program _____ Date _____

12. SIGNATURE OF STUDENT _____ Date _____ Academic Dean (if required) _____ Date _____ Graduate School Dean _____

PURDUE UNIVERSITY GRADUATE SCHOOL

Request for Master's Degree Advisory Committee and Plan of Study Approval (Please read instructions on reverse side.)

Pg. _____ of _____ Pgs. Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Biology Dept. Code BIO Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area N/A

3. AREA OF SPECIALIZATION (if any) Forensic Biology AOS Code N/A

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <i>Please group courses into "Primary" (P) & "Related" (R) areas.</i>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Biology I	FIS	52100	3	X			Fall 1
P	Forensic Biology I Lab	FIS	52101	1	X			Fall 1
P	Forensic Biology II	FIS	52200	3	X			Spring 1
P	Forensic Biology II Lab	FIS	52201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Spring 1
R	Law and Forensic Science	LAW	D774	2	X			Summer 1
R	Design of a Research Project	FIS	59700	6	X			Fall 2
R	Elective	---	----	3	X			Fall 2
R	Elective	---	----	3	X			Spring 2
R	Elective	---	----	3	X			Spring 2
R	Elective	---	----	1	X			Spring 2
Under the current requirements, a non-thesis M.S. student in forensic biology would take 11 credit hours of coursework in their primary area (forensic biology and microscopy) and 24 credits of related coursework for a total of 35 credit hours.								

7. LANGUAGE REQUIREMENTS Method to be used to meet language requirements + Transfer course must be described as on original transcript.
* Mark course number with asterisk (*) if B or better is required.

a. _____
b. _____

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
Chair		Chair			

Check here if supplemental notes or other requirements are attached.

13. APPROVED BY:

Head of the Graduate Program	Date
12. SIGNATURE OF STUDENT	Date
Academic Dean (if required)	Date

Graduate School Dean

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Request for Master's Degree Advisory Committee and Plan of Study Approval
(Please read instructions on reverse side.)

Pg. _____ of _____ Pgs. Date Degree Expected _____

1. NAME OF STUDENT EXAMPLE PUID No. _____

2. DEPARTMENT Biology Dept. Code BIO Thesis Option Nonthesis Option

Degree Title Master of Science Degree Code FIS/MS Research Area N/A

3. AREA OF SPECIALIZATION (if any) Forensic Biology AOS Code N/A

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <i>Please group courses into "Primary" (P) & "Related" (R) areas.</i>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Forensic Biology I	FIS	52100	3	X			Fall 1
P	Forensic Biology I Lab	FIS	52101	1	X			Fall 1
P	Forensic Biology II	FIS	52200	3	X			Spring 1
P	Forensic Biology II Lab	FIS	52201	1	X			Spring 1
P	Forensic Microscopy	FIS	50600	3	X			Spring 1
R	Professional Issues in Forensic Science	FIS	50500	3	X			Fall 1
R	Legal Issues in Forensic Science	FIS	51500	3	X			Fall 1
R	Elective	---	----	3	X			Fall 1
R	Project Design	FIS	59700	3	X			Spring 1
R	Elective	---	----	3	X			Spring 1
R	Law and Forensic Science	LAW	D774	2	X			Summer 1
R	Forensic Science Laboratory Management	FIS	----	2	X			Summer 1
<p>Under the new requirements, a non-thesis M.S. student in forensic biology would take 30 credit hours of coursework - completing it in three semesters (Fall, Spring, Summer I). Approved electives would include graduate courses in biology. FIS 59700 (Project Design) will be offered as a 3 credit class that will include material on instrument evaluation, method development/validation and optimization. A 2 credit class in lab management will be offered and be team-taught by laboratory directors who currently advise the FIS program.</p>								

7. LANGUAGE REQUIREMENTS		Method to be used to meet language requirements	+ Transfer course must be described as on original transcript. * Mark course number with asterisk (*) if B or better is required.
a.		a.	
b.		b.	

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
Chair		Chair			

<input type="checkbox"/> Check here if supplemental notes or other requirements are attached.	13. APPROVED BY:		Graduate School Dean
	Head of the Graduate Program	Date	
12. SIGNATURE OF STUDENT	Date	Academic Dean (if required)	Date