

Fall 2009 Schedule of Classes
QA/RA Graduate Program (Updated October 12, 2009)

All of our fall classes have started. If you're interested in starting a class, the next available semester is spring 2010 (classes will start on January 16). Contact gara@temple.edu to be placed on our list serve.

5451. Statistical Quality Control (101) crn: 102-610

8:30 am – 5:00 pm Sundays: Sept 13, 27, Oct 11, Nov 8, 22. Make-up Dec 13, if needed. Meets 5 times.

Faculty: Ronald D. Sneek

Required text: *Introduction to Statistical Quality Control*, Montgomery, Wiley, 6th ed, (ISBN: 978-0-470-16992-6).

Formerly Pharmaceutics 451. Not open to students who have taken Pharmaceutics 451.

5458. The Global Biopharmaceutical Industry (including the Waxman Hatch Act) (101) crn: 105-643 425 Bldg, Rm 3

6:30 pm – 10:00 pm Thursdays: Sept 10, 17, Oct 1, 8, 15, 22, 29, Nov 5, 12, 19, Dec 3. Meets 11 times (includes midterm exam date). Make-ups, if needed, Dec 10.

Faculty: Sandra Cottrell and John Cullen

Required text: *The Generic Challenge*, Voet (ISBN: 159942444-4).

5459. Drug Development (102) crn: 074-421

5:00 pm – 8:00 pm Mondays: Sept 14, 21, 28 (Yom Kippur), Oct 5, 12 (Columbus Day), 19, 26, Nov 2, 9, 16, 23, 30. Make-ups, if needed, Dec 7 or 14. Meets 12 times plus final exam.

Faculty: Chris Wittrock

Required text: *New Drug Development: A Regulatory Overview*. Mathieu, 8th ed, (ISBN: 1-882615-85-9).

Formerly Pharmaceutics 459. Not open to students who have taken Pharmaceutics 459.

5459. Drug Development (101) crn: 102-845 425 Bldg (Room 3)

6:00 pm – 9:30 pm Tuesdays: Sept 8, 15, 22, 29, Oct 6, 13, 20, 27, Nov 3, 10. Make-ups, if needed, Nov 17 or 24. Meets 10 times plus final exam.

Faculty: Dan Walsh

Required text: *New Drug Development: A Regulatory Overview*. Mathieu, 8th ed, (ISBN: 1-882615-85-9).

Suggested texts: *Drugs: From Discovery to Approval, 2nd Edition*, Ng, December 2008, Wiley-Blackwell, (ISBN: 978-0-470-19510-9), AND *The Great Influenza: The Epic Story of the Deadliest Plague in History*, John M. Barry, Penguin Group Oct 2005, ISBN: 13- 9780143036494.

Formerly Pharmaceutics 459. Not open to students who have taken Pharmaceutics 459.

5459. Drug Development (103) crn: 075-261

8:30 am – 5:00 pm Saturdays: Sept 12, 26, Oct 10, 24, Nov 7. Make-up, if needed, Nov 21. Meets 5 times.

Faculty: Lionel Edwards

Required text: *Principles and Practices of Pharmaceutical Medicine*, Edwards, Fletcher, Fox, Stonier, 2nd ed, (ISBN: 0470 093137).

Formerly Pharmaceutics 459. Not open to students who have taken Pharmaceutics 459.

5469. Pharmaceutical Laboratory Quality Systems and Operations (101) crn: 102-687

Suggested prerequisite: strong science background, preferably with lab experience.

6:00 pm – 9:30 pm Thursdays: Sept 10, 17, 24, Oct 1, 8, 15, 22, 29, Nov 5, 12. Make-ups, if needed, Nov 19 or Dec 3. Meets 10 times plus final exam.

Faculty: George Pyramides and Frank Diana

Required text: will be provided by instructors (21 CFR Part 11, 21 CFR 210 & 211, 21 CFR 820 (Quality Systems Regulations) and ICH Q7A.)

Formerly Pharmaceutics 489. Not open to students who have taken Pharmaceutics 489.

5472. Pharmaceutical Marketing (101) crn: 102-693

6:00 pm – 9:30 pm Thursdays: Sept 10, 17, 24, Oct 1, 8, 15, 22, 29, Nov 5, 12. Make-ups, if needed, Nov 19 or Dec 3. Meets 10 times plus final exam.

Faculty: Doug Hisey

Required text: *Pharmaceutical Marketing: Principles, Environment and Practice*, Smith, (ISBN: 0789015838).

Formerly Pharmaceutics 482. Not open to students who have taken Pharmaceutics 482.

5474. Process Validation (990) 102-797

Prerequisites: BS in Pharmacy, Chemistry, Biology or Engineering, and strong science background, including familiarity with chemistry, biology, and physics. Students should also have a basic understanding of pharmaceutical manufacturing processes.

6:00 pm – 9:00 pm Mondays: Sept 14, 21, 28 (Yom Kippur), Oct 5, 19, 26, Nov 2, 9, 16, 23, 30, Dec 7. Make-up, if needed, Dec 14. Meets 12 times plus final exam. No class Oct 12.

Faculty: John Murtha

Required text: *Pharmaceutical Process Validation*, R. Nash & A. Wachter, Marcel Dekker, (intern'l 3rd ed), 2003, (ISBN: 0824708385).

Formerly Pharmaceutics 484. Not open to students who have taken Pharmaceutics 484.

All students taking an Adobe Connect course must agree to “Expectations of Adobe Connect students” www.temple.edu/pharmacy_QARA/connect/Expectations09.pdf

5477. Good Manufacturing Practices (101) crn: 040-095

8:30 am – 3:00 pm Sundays (1/2 hour lunch): Sept 20, Oct 4, 18, Nov 1, 15, Dec 6. Make-up, if needed, Dec 13 or 20. Meets 6 times.

Faculty: Frank Stevenson

Recommended text: *Good Manufacturing Practices for Pharmaceuticals*, 6th ed, Nally (ISBN: 0-8493-3972-3).

Formerly Pharmaceutics 487. Not open to students who have taken Pharmaceutics 487.

5491. Pre-Approval Inspections (101) crn: 102-831

8:30 am – 3:00 pm Saturdays: Sept 19 (Rosh Hashanah), Oct 3, 17, 31, Nov 14, Dec 5. Make-up, if needed, Dec 12. Meets 6 times.

Faculty: John Parker

Required text: *Pharmaceutical Pre-Approval Inspections: A Guide to Regulatory Success*, 2nd Ed, Martin D. Hynes III, Informa Healthcare USA, (ISBN # 13: 978-0-8493-9184-2).

Formerly Pharmaceutics 491. Not open to students who have taken Pharmaceutics 491.

5494. Quality Audit (101) crn: 074-156

Prerequisite: a good practices course (Pharmaceutics 5476, 5477, 5479, or 5536).

6:00 pm – 9:30 pm Mondays: Sept 14, 21, 28 (Yom Kippur), Oct 5, 12 (Columbus Day), 19, 26, Nov 2, 9, 16. Make up, if needed, Nov 30. Meets 10 times plus final exam.

Faculty: Teresa Preziosi

Required text: *The ASQ Auditing Handbook*, 3rd ed, J.P. Russell. Available from ASQ Quality Audit Division: www.asq.org, (ISBN: 9780873896665, ASQ Item # 1263).

Formerly Pharmaceutics 494. Not open to students who have taken Pharmaceutics 494.

5494. Quality Audit (102) crn: 102-706

Prerequisite: a good practices course (Pharmaceutics 5476, 5477, 5479, or 5536).

8:30 am – 3:00 pm Saturdays (1/2 hr lunch): Sept 19 (Rosh Hashanah), Oct 3, 17, 31, Nov 14, Dec 5. Make-up, if needed, Dec 12. Meets 6 times.

Faculty: Jeffrey Werrmann

Required text: *The ASQ Auditing Handbook*, 3rd ed, J.P. Russell. Available from ASQ Quality Audit Division: www.asq.org, (ISBN: 9780873896665, ASQ Item # 1263).

Formerly Pharmaceutics 494. Not open to students who have taken Pharmaceutics 494.

TARRYTOWN, NY

5494. Quality Audit (318) crn: 102-859

Meets at the West Chester Marriott in Tarrytown, NY.

Prerequisite: a good practices course (Pharmaceutics 5476, 5477, 5479, or 5536).

8:30 am – 5:00 pm Saturdays (1/2 hr lunch): Oct 3, 17, 31, Nov 14, Dec 5. Make-up, if needed, Dec 12 or 19. Meets 5 times.

Faculty: Sarah Van Valkenburg

Required text: Required text: The ASQ Auditing Handbook, 3rd ed, J.P. Russell. Available from ASQ Quality Audit Division: www.asq.org, (ISBN: 9780873896665, ASQ Item # 1263).

Formerly Pharmaceutics 494. Not open to students who have taken Pharmaceutics 494.

5495. IND/NDA Submissions (101) crn: 040-111

Prerequisites: Drug Development (Pharmaceutics 5459) and/or Food and Drug Law I (Pharmaceutics 5592).

5:00 pm – 8:30 pm Thursdays: Sept 10, 17, 24, Oct 1, 8, 15, 29, Nov 5, 12, 19. Make-up, if needed, Dec 3. No class Oct 22. Meets 10 times plus final exam.

Faculty: Peter Smith

Required text: New Drug Development: A Regulatory Overview. Mathieu, 8th ed, (ISBN: 1-882615-85-9)

Formerly Pharmaceutics 495. Not open to students who have taken Pharmaceutics 495.

5505. Global Medical Devices (101) crn: 102-719

8:15 am – 2:45 pm (1/2 hr lunch) Sundays: Sept 13, 27, Oct 11, 25, Nov 8, 22. Make-up if needed Dec 13. Meets 6 times.

Faculty: Marcia Arentz

No required text.

Formerly Pharmaceutics 500. Not open to students who have taken Pharmaceutics 500.

5515. Biologics/Biosimilars: A Regulatory Overview (101) crn: 076-189 Rm 13, 425 Bldg.

Prerequisites: Drug Development and Food and Drug Law I. Students are expected to have a strong science background, including familiarity with undergraduate chemistry and biology. An undergraduate course in general biochemistry is also recommended.

6:00 – 9:30 pm Wednesdays: Sept 9, 16, 23, 30, Oct 7, 14, 21, 28, Nov 4, 11 (Veterans' Day). Make-ups, if needed, Nov 18 or Dec 2. Meets 10 times plus final exam.

Faculty: Ray Bakhtiar

Required text: Biologics Development – A Regulatory Overview, Mathieu, 3rd ed., (2004), PAREXEL (ISBN: 1-882615-67-0).

TARRYTOWN, NY

5533. Requirements for Product Labeling and Advertising (318) crn: 102-722

Meets at the West Chester Marriott, Tarrytown, NY.

8:30 am – 5:00 pm Sundays (1 hr lunch): Sept 20, Oct 4, 18, Nov 1, 15. Make-ups, if needed, Dec 6 or 13. Meets 5 times.

Faculty: Suzanne LoGalbo

Required text: Life Science Law: Federal Regulation of Drugs, Biologics, Medical Devices, Foods, and Dietary Supplements, Termini, Forti Publications

Formerly Pharmaceutics 533. Not open to students who have taken Pharmaceutics 533.

5536. Good Clinical Practices (102) crn: 077-743 Rm 6, 425 Bldg.

6:00 pm – 9:30 pm Wednesdays: Sept 9, 16, 23, 30, Oct 7, 14, 21, 28, Nov 4, 11 (Veterans' Day). Make-ups, if needed, Nov 18 or Dec 2. Meets 10 times plus final exam

Faculty: Debra Weiss

Required texts: 1) Good Clinical Practices: A Question and Answer Reference Guide, Mackintosh, Molly, and Mathieu, 2006 (ISBN: 1-882615-78-6) or latest version, and 2) 2007 CFR/ICH GCP Reference Guide (or latest version). Order Reference Guide from www.barnettinternational.com.

Formerly Pharmaceutics 536. Not open to students who have taken Pharmaceutics 536.

5536. Good Clinical Practices (101) crn: 040-125

8:30 am – 5:00 pm Saturdays: Sept 12, 26, Oct 10, 24, Nov 7. Make-up, if needed, Nov 21. Meets 5 times.

Faculty: Nancy Smith** The QA/RA program is delighted to welcome Dr. Nancy Smith, who was formerly the Director of Training and Communications for CDER (Center for Drug Evaluation and Research), FDA. This course offers a unique perspective of GCP regulation.

Required text: *2009 CFR/ICH GCP Reference Guide*. Order from www.barnettinternational.com. Students may use the 2005/06 version.

Formerly *Pharmaceutics 536*. Not open to students who have taken *Pharmaceutics 536*.

5539. Global Clinical Drug Development (101) crn: 102-735

Prerequisites: two of the following: Drug Development, Good Clinical Practices, Food and Drug Law I, Global Regulatory Affairs.

Note: this class may be substituted in place of Clinical Trial Management in the CTM Certificate.

8:30 am – 5:00 pm Sundays: Sept 13, 27, Oct 11, 25, Nov 8. Make-up, if needed, Nov 22. Meets 5 times. Faculty: Lionel Edwards

Required text: *Principles and Practices of Pharmaceutical Medicine*, Edwards, Fletcher, Fox, Stonier, 2nd ed., (ISBN: 0470 093137).

Formerly *Pharmaceutics 539*. Not open to students who have taken *Pharmaceutics 539*.

5576. Global CMC Issues and Regulatory Dossiers (101) crn: 074-813

8:30 am – 3:00 pm (1/2 hour lunch) Saturdays: Sept 19 (Rosh Hashanah), Oct 3, 17, 31, Nov 14, Dec 5. Make-up if needed Dec 12 or 19. Meets 6 times.

Faculty: Roger Kates

No required text.

Formerly *Pharmaceutics 586*. Not open to students who have taken *Pharmaceutics 586*.

5578. Benefit-Risk Management of Healthcare Products (101) crn: 102-741

Prerequisites: one Pharmacovigilance course (see below)*

5:30 pm – 8:30 pm Thursdays: Sept 10, 17, 24, Oct 1, 8, 15, 22, 29, Nov 5, 12, 19, Dec 3. Make-ups, if needed, Dec 10 or 17. No class Nov 26 (Thanksgiving Day). Meets 12 times plus final exam.

Faculty: Dina Anand and John Clark.

Recommended text: *Framework for Pharmaceutical Risk Management*, Fetterman, Nickel, Pines, and Slatko, FDLI. FDLI gives QA/RA students a special student discount only if you order the Supplement by phone from FDLI's Customer Service Department (1-800-956-6293) or fax (202 371-0649). You must include a copy of your Temple QA/RA schedule. Do not complete your transaction on-line or you will be charged the prices listed for non-members.

*Pharmacovigilance courses include: *Post Marketing Safety Surveillance (5571)* or *Clinical Drug Safety and Pharmacovigilance (5538)* or *Good Pharmacovigilance Practices (5508)* or *Regulatory & Legal Basis of Pharmacovigilance (5579)*.

5579. Regulatory & Legal Basis of Pharmacovigilance (101) crn: 102-753

5:30 pm – 8:30 pm Tuesdays: Sept 22, 29, Oct 6, 13, 20, 27, Nov 3, 10, 17, 24, Dec 1, 8. Make-up, if needed, Dec 15th. Meets 12 times plus final exam.

Faculty: Stephen Klinecicz and Yuung Yuung Yap

Required text: *Global Pharmacovigilance Laws & Regulations: The Essential Reference*, Klinecicz, Yap, Thomas, FDLI, 2009, (ISBN 978-1-935065-08-1). FDLI gives QA/RA students a special student discount only if you order the required text by phone from FDLI's Customer Service Department (1-800-956-6293) or fax (202 371-0649). You must include a copy of your Temple QA/RA schedule. Do not complete your transaction on-line or you will be charged the prices listed for non-members.

5591. Global Regulatory Affairs (101) crn: 102-764 425 Bldg (Room 19)

Prerequisite: Drug Development (Pharmaceutics 5459) or Food and Drug Law I (Pharmaceutics 5592)

5:30 pm - 8:30 pm Tuesdays: Sept 8, 15, 22, 29, Oct 6, 13, 20, 27, Nov 3, 10, 17, 24. Make-ups, if needed, Dec 1 or 8. Meets 12 times plus final exam.

Faculty: Daniel Larkins

No required text.

Formerly Pharmaceutics 591. Not open to students who have taken Pharmaceutics 591.

5591. Global Regulatory Affairs (102) crn: 074-824

Prerequisite: Drug Development (Pharmaceutics 5459) or Food and Drug Law I (Pharmaceutics 5592).

9:00 am - 3:30 pm (1/2 hr lunch) Saturdays: Sept 26, Oct 10, 24, Nov 7, 21, Dec 12. Meets 6 times.

Faculty: Henrietta Ukwu

Required text: *New Drug Development: A Regulatory Overview*, Mathieu, 8th ed, (ISBN: 1-882615-85-9).

5592. Food and Drug Law I (101) crn: 003-255

8:30 am – 3:00 pm Sundays (1/2 hour lunch): Sept 13, 27, Oct 11, 25, Nov 8, 22. Make-up Dec 13, if needed. Meets 6 times.

Faculty: Barry Berger

Required texts: 1) Food and Drug Law: Cases and Materials, 3rd ed, Hutt, et al, Foundation Press, (ISBN: 978-1-58778-068-4). (This is a new 2007 edition of this text. Please do not purchase earlier versions.)

AND 2) FDLI Statutory Supplement, (ISBN: 978-1-935065-01-2). Order Supplement from www.fdpi.org.

FDLI will give QA/RA students a special student discount, only if you order the Supplement by phone from FDLI's Customer Service Department (1-800-956-6293) or fax (202-371-0649). You must include a copy of your Temple QA/RA schedule. Do not complete your transaction on-line or you will be charged the prices listed for non-members.

Formerly Pharmaceutics 592. Not open to students who have taken Pharmaceutics 592.

5592. Food and Drug Law 1 (102) crn: 032-863

6:00 pm – 9:30 pm Mondays: Sept 14, 21, 28 (Yom Kippur), Oct 5, 12 (Columbus Day), 19, 26, Nov 2, 9, 16. Make-up, if needed, Nov 23 or 30. Meets 10 times plus final exam.

Faculty: Brian Bollwage

Required text: *Food and Drug Law: Cases and Materials*, 3rd ed, Hutt, et al, Foundation Press, (ISBN: 978-1-58778-068-4). (This is a new 2007 edition of this text. Please do not purchase earlier versions.)

Formerly Pharmaceutics 592. Not open to students who have taken Pharmaceutics 592.

5592. Food and Drug Law 1 (105) crn: 106-986

6:00 pm – 9:30 pm Tuesdays: Sept 15, 22, 29, Oct 6, 13, 20, 27, Nov 3, 10, 17, 24. Make-ups, if needed, Dec 1 or 8. Class meets 10 times plus final exam.

Faculty: Craig Hammes

Required texts: 1) *Food and Drug Law: Cases and Materials*, 3rd ed, Hutt, et al, Foundation Press, (ISBN: 978-1-58778-068-4). (This is a new 2007 edition of this text. Please do not purchase earlier versions.) and

2) *FDLI Statutory Supplement*, (ISBN: 978-1-935065-01-2). Order Supplement from www.fdpi.org. FDLI will give QA/RA students a special student discount, only if you order the Supplement by phone from FDLI's Customer Service Department (1-800-956-6293) or fax (202-371-0649). You must include a copy of your Temple QA/RA schedule. Do not complete your transaction on-line or you will be charged the prices listed for non-members.

Formerly Pharmaceutics 592. Not open to students who have taken Pharmaceutics 592.

5599. Clinical Aspects of Pharmaceutical Medicine I (101) crn: 102-770

THIS COURSE IS FULL. WAIT LIST ONLY.

8:30 am – 5:00 pm Sundays (1 hr lunch): Sept 20, Oct 4, 18, Nov 1, 15. Make-ups, if needed, Dec 6 or 13. Meets 5 times.

Faculty: Andrew Fletcher

Required texts: 1) *The Merck Manual of Diagnosis & Therapy*, 18th ed on-line (free) at www.merckmanuals.com, or optionally the hard-copy edition: *The Merck Manual of Diagnosis & Therapy* (18th ed), 2006 (ISBN 10:0-911-91018-2), Eds. Beers, Porter, Jones, Kaplan, and Berkowitz. You may also refer to the Home Edition (same web-site), if you are having difficulty with the professional edition. AND 2) *The Demon in the Freezer*, Richard Presto, Ballantine Books, NY, 2002 (ISBN: 10: 0-345-46663-2).

Formerly Pharmaceutics 5599. Not open to students who have taken Pharmaceutics 5599.

5612. Bioethics for Pharmaceutical Professionals (102) crn: 077-879

8:30 am – 3:00 pm (1/2 hour lunch) Sundays: Sept 20, Oct 4, 18, Nov 1, 15, Dec 6. Make-up, if needed, Dec 13 or 20. Meets 6 times.

Faculty: Sean Develin

Required text: *The Singularity is Near*, Kurzweil, Penguin Books, (ISBN: 0-14-303788-9).

Formerly *Pharmaceutics 610*. Not open to students who have taken *Pharmaceutics 610*.

5622. Unit Operations (101) crn: 076-506

Prerequisite: Strong science background, including a BS in Pharmacy, Chemistry, Biology, or Engineering and familiarity with chemistry, biology, and physics. Students should also have a basic understanding of pharmaceutical manufacturing processes.

Live classes: 8:30 am – 3:30 pm Saturdays: Sept 19, Oct 31, Nov 14, Dec 12.

Note: the Oct 31 and Nov 14 classes will be held at Emerson Resources, 600 Markley St, Norristown, PA 19401, where students will practice milling, mixing, tableting and coating.

Other lectures will be posted on the Internet on a weekly basis, which students may view at their convenience.

Faculty: David Lebo, et al

Required text: *Pharmaceutical Process Engineering*, Anthony J. Hickey and David Ganderton.

8003. Pharmaceutical Manufacturing I: Preformulation/Formulation (101) crn: 040-074

Note: this course will not be scheduled again until Fall 2010. This course requires a strong science background. Fax resume to QA/RA Office at 267.468.8565 for approval to take this course.

8:30 am – 4:30 pm (1/2 hr lunch) Saturdays: Sept 19 (Rosh Hashanah), Oct 3, 17, 31, Nov 14. Make up, if needed, Dec 5. Meets 5 times.

Faculty: Thomas Schultz

Required text: *Pharmaceutics: The Design and Manufacture of Medicine*, 2007, Aulton, ed, (ISBN-13: 978-0-443-10108-3 or ISBN-10: 0-443-10108-6).

Recommended: Download the *FMC Problem Solver* from:

http://www.fmcbiopolymer.com/Biopolymer/V2/Problem_Solver/.

8004. Pharmaceutical Manufacturing II (990) 102-862

To learn more about this course and to experience Adobe, go to:

<https://breeze.temple.edu/p42408858/>

Prerequisite: science and basic math background. There will be no review of basic science concepts; it will be assumed that students are familiar with them. Completion of Pharmaceutical Manufacturing I is helpful but not required. Fax resume to demonstrate science background to 267.468.8565.

7:00 pm – 10:00 pm Tuesdays: Sept 15, 22, 29, Oct 6, 13, 20, 27, Nov 3, 10, 17, 24, Dec 1. Make-up, if needed, Dec 8 or 15. Class meets 12 times plus final exam.

Faculty: Karen Zimm

Recommended text: *Aulton's Pharmaceutics: The Design & Manufacture of Medicines*, 2007, Aulton, ed, (ISBN 044-31-01086). Students must also download the *FMC Problem Solver* from www.fmcbiopolymer.com (Pharmaceuticals, Toolkits).

Formerly *Pharmaceutics 407*. Not open to students who have taken *Pharmaceutics 407*.

All students taking an Adobe Connect course must agree to “Expectations of Adobe Connect students” www.temple.edu/pharmacy_QARA/connect/Expectations09.pdf

NON-THESIS SECTIONS (01235)

Electives from the non-thesis MS in Pharmaceutics are open to QA/RA students who have strong science backgrounds. This consists of a minimum of 2 years of general chemistry, including organic and one analytical chemistry course. Students must fax their resume to 267.468.8565 for written permission to register.

Special note: Biotechnology and Physical Pharmacy will be offered in spring 2010.

8002. Pharmaceutical Analysis (101) crn: 077-409 Rm 19, 425 Bldg.

Prerequisite: strong science background required. Special permission of Dr. Canney required. Fax resume to 267.468.8565.

5:15 – 8:15 pm Mondays: Sept 14, 21, 28 (Yom Kippur), Oct 5, 12 (Columbus Day), 19, 26, Nov 2, 9, 16, 23, 30. Final exam on Dec 7, unless make-up class is needed (then the exam moves to Dec 14). Class meets 12 times plus final exam. No class Sept 7.

Faculty: Daniel Canney, Timothy Gilmor, Andrew Kuzmission

No required text.

8111. Introduction to Toxicology (101) crn: 040-715 Room 4, 425 Bldg.

Prerequisite: strong science background required. Special permission of Dr. Canney required. Fax resume to 267.468.8565.

6:00 pm – 9:00 pm Tuesdays: Sept 8, 22, 29, Oct 6, 13, 20, 27, Nov 3, 10, 17, 24, Dec 1. Final exam on Dec 8. Make-ups, if needed, Dec 15 or 22. No class Sept 15. Class meets 12 times plus final exam.

Faculty: Timothy Coogan

Required text: *Casarett & Doull's Essentials of Toxicology*, Curtis D. Klaassen and John B. Watkins III, eds, 2003, McGraw-Hill, (ISBN 0-07-138914-8).