Forensic Science Graduate Handbook 2008-2009
Dear New Graduate Student:

We are pleased to welcome you to Virginia Commonwealth University’s graduate program in Forensic Science. Offered in partnership with the Virginia Department of Forensic Science (DFS), this program offers graduate students the opportunity for hands-on learning in conjunction with one of the finest nationally accredited forensic laboratories in the country.

We understand that you may have many questions about getting started and university resources. This handbook is designed to answer many of those questions. However, the 2008-09 VCU Graduate and Professional Programs Bulletin is the official source for the University’s academic regulations and degree requirements (http://www.pubapps.vcu.edu/bulletins/). In addition, the 2008-09 VCU Resource Guide (http://www.students.vcu.edu/rsg/) is a source for various university policies and campus resources.

Each of you will receive notification of your VCU faculty advisor assignment at orientation. You are required to consult with your advisor at least once a semester. The School of Graduate Studies has e-mailed you an invitation to orientation, scheduled for the morning of Friday, August 15, 2008. Please RSVP and plan to attend that event if possible. In addition, you are invited to attend a Forensic Science Department Orientation from 9:00 a.m. –12:00 p.m. on Monday, August 18, 2008 in the Trani Center for Life Sciences, Room. 253, located at 1000 West Cary Street. At the completion of orientation, students will meet briefly with their academic advisor. A light breakfast will be served. Please bring all of your questions regarding our program, VCU and student life in Richmond to this orientation! We look forward to meeting you all there.

Please note that Fall 2008 classes begin Thursday, August 21, 2008. However, because of the short week, your classes have been canceled for that day. Instead, on August 21, please arrive at the Virginia Department of Forensic Science (DFS), 700 North 5th Street, at 4:00 p.m. and go to the cafeteria - the guard at the front desk will direct you. From approximately 4:00 p.m. - 5:30 p.m., you will complete background check forms, be fingerprinted, and will provide buccal swabs for DNA genotyping. All of this is required to attend classes and work in the labs at DFS. Please also bring at least one picture ID - a valid drivers license or passport.

Lastly, we hope you have marked your calendars for food and fun at the annual Graduate Student Picnic, to be held on Sunday, August 24th from 4:00 p.m.-7:00 p.m. in the Life Science Building courtyard. Second year students, faculty, and VA DFS staff will be there to welcome you to VCU. We hope you will all plan to attend.

We look forward to seeing you this fall 2008 semester.

Sincerely,

Bill Eggleston, Pete Marone, Tracey Dawson Cruz

Bill Eggleston, Chair Pete Marone, Director Tracey Dawson Cruz, Graduate Director
Department of Forensic Science Virginia Department of Forensic Science Virginia Department of Forensic Science
Virginia Commonwealth University Virginia Department of Forensic Science Virginia Commonwealth University
# Table of Contents

- Chair and Directors’ Welcome i
- Table of Contents 1
- First Things First 2
- Curriculum Overview 4
  - Course Requirements 5
  - Course Descriptions 7
  - Additional Policies 12
  - Semester-by-Semester Schedules 13
  - Important Curriculum Reminders 17
- Internship and Independent Study 18
- Advising 31
- Process for Complaints 32
- Teaching Assistantships 33
- Scholarship Information 33
- Honor System 36
- Professional and Student Associations 37
- Fellowship Opportunities 38
- VCU Resources 39
- Safety and Security 41
- Important Phone Numbers 42
I’m accepted into the program, now what?

The VCU Graduate School website is a great resource for students throughout the application and acceptance process. Once accepted, go to http://www.graduate.vcu.edu/admission/newstudents/checklist.html for a checklist of important tasks to complete.

Where can I find information about housing?

VCU has two web sites which will be of assistance to you. For information about off-campus housing, go to http://www.students.vcu.edu/commons/services/offcampus/och/index.html. For information about on-campus housing, go to http://www.housing.vcu.edu. Also, check the graduate school’s website for a list of classifieds, there are numerous housing options there.

What about working while I am in school?

The graduate program is full-time and rigorous. We recommend against full-time employment. If you are eligible for work-study, the University Career Center posts work-study openings on and off campus. That web page is http://www.students.vcu.edu/careers/. There also may be work-study opportunities in the Department of Forensic Science and other departments that we work closely with, to which we will alert you by e-mail.

What is the cost of tuition? Where can I find information about financial aid and scholarships?

Tuition and fees are listed on the Student Accounting web page, located at http://www.vcu.edu/enroll/sa/. Financial Aid and scholarship information are located at http://www.vcu.edu/enroll/finaid/.

Will I need a car? What about parking?

Previous graduate students recommend that it is better to have your own transportation. Classes are held both at DFS and VCU day and evening. Free parking is available at DFS after 4:30 in its parking lot. VCU parking information is available at http://www.bsv.vcu.edu/vcupark/. Day or evening-only parking stickers can be purchased for on-campus parking; in addition, free, first-come, first served on-street parking is available near some classes.
First Things First (continued)

When is orientation?

Each year the Graduate School, in conjunction with the Graduate Student Association, holds graduate student orientation on the Friday before fall classes start. Orientation is generally held from 9 a.m. - 1 p.m. in the University Student Commons with speakers, tables of information and a picnic lunch. Expect to receive an email invitation with the details concerning this event by mid-summer. The Department of Forensic Science also sponsors a graduate program orientation each year during the week of or prior to the beginning of fall classes. This graduate program orientation is followed by individual advising sessions for each student with his or her academic advisor.


Your VCU Card can be obtained on the day of Graduate Student Orientation. Bring a photo ID and a copy of your Fall schedule to the Technology Administration Building on Broad Street. If you are unable to attend orientation, you can obtain your VCU Card the following week during VCU Card business hours. (For more information, see [http://www.vcucard.com/](http://www.vcucard.com/).)

How do I get my VCU e-mail account?

Your VCU e-mail address is the university’s official form of communication. The first step is to get your eID, to do so, visit [http://www.ts.vcu.edu/faq/accounts/](http://www.ts.vcu.edu/faq/accounts/). To obtain your VCU e-mail address add your eID to @vcu.edu. Then go to [http://www.vcu.edu/vcu/email.php](http://www.vcu.edu/vcu/email.php) to access your account.

Where are classes held?

Classes are held at both VCU and DFS Central Laboratory. Forensic Science courses offered at VCU are held on either the Monroe Park or the Medical campus. DFS’s Central Laboratory ([http://www.dfs.virginia.gov/](http://www.dfs.virginia.gov/)) is located at 700 N. 5th Street and is a part of the Virginia Biotechnology Research Park in downtown Richmond, only blocks from the state capital.

What courses do I take my first semester and how do I register?

You register online. Here are the classes you will take during your first semester at VCU (totaling 10 credits):
- FRSC 570, Forensic Science Seminar (1)
- FRSC 671, Instrumentation in Forensic Chemistry (3)
- FRSC 673, Forensic Microscopy (2)
- FRSZ 673L, Forensic Microscopy Laboratory (1)
- FRSC 675, Forensic Serology and DNA Analysis (2)
- FRSZ 675L, Forensic Serology and DNA Analysis Laboratory (1)
To register, go to the VCU web site, [http://www.vcu.edu](http://www.vcu.edu), and log into the Portal. This will take you to Banner Self Service; from there, follow the on-screen instructions.
The Master of Science is one of only a few FEPAC-accredited programs of its kind in the United States. The objective of the Master of Science in Forensic Science program is to prepare students for careers as forensic scientists in government and private forensic laboratories. In addition, students will be prepared to pursue further graduate and/or professional academic degrees, if desired.

Core courses in the Master of Science Forensic Science curriculum offer broad exposure to forensic laboratory equipment and instrumentation and exposure to criminal procedures and expert testimony, forensic biology, forensic chemistry, trace evidence, physical evidence, professional ethics, quality assurance, and current topics in research and development within the forensic sciences. Students entering this program are offered the opportunity to specialize within the field. Students entering the program are required to select a concentration track by the end of their first semester. Tracks offered include Forensic Biology, Forensic Chemistry/Drugs & Toxicology, Forensic Chemistry/Trace, and the Forensic Physical (Evidence) track. Throughout the curriculum, a strong emphasis is placed on laboratory course work, providing students with significant laboratory experience prior to graduation. Several of the laboratory courses are taught by practicing professional forensic scientists at the Virginia Department of Forensic Science’s Central Laboratory, which is nationally accredited by the American Society of Crime Laboratory Directors-Laboratory Accreditation Board.

The Master of Science in Forensic Science requires 36 semester hours of course work; this includes 24 semester hours from required core course work and 12 semester hours from the specialized course work designed for each track. The graduate program is a full-time, two year program designed to accommodate only full-time graduate students. Courses will vary depending on the track selected, however, required and elective courses are offered at various times on weekdays (morning, afternoon and evening).

Program Features

- Small class sizes.
- Distinguished faculty.
- Courses taught by current or former practicing forensic scientists.
- Active research programs in multiple forensic science disciplines.
- Location in the state capital provides a rich environment for both classroom learning and internships.
- Hands-on laboratory courses using modern crime laboratory equipment taught on-campus and at the Virginia Department of Forensic Science Central Laboratory.
- Computerized library facilities allow for remote access.
Curriculum - Course Requirements

Master of Science in Forensic Science degree  (36 credits)

Core Requirements  (24 Credits)

FRSC 570  Forensic Science Seminar*† (1 credit each for 3 credits total)
FRSC 661  Analysis of Pattern Evidence (lecture/laboratory) - OR –
FRSC 662  Firearm & Toolmark Identification (lecture/laboratory) (3)
FRSC 670  Forensic Evidence & Criminal Procedure (3)
FRSC 671  Instrumentation in Forensic Chemistry* (3)
FRSC 673  Forensic Microscopy* (2)
FRSZ 673L  Forensic Microscopy Laboratory* (1)
FRSC 675  Forensic Serology & DNA Analysis* (2)
FRSZ 675L  Forensic Serology & DNA Analysis* (1)
FRSC 677  Expert Testimony in Forensic Science (3)
FRSC 793  Forensic Laboratory Internship (3)

Tracks (12 Credits – choose one track)

Forensic Biology
FRSC 676  Advanced Forensic DNA Analysis (lecture/laboratory) (3)
BIOL 516  Population Genetics - OR –
STAT/BIOS/EPID 543 Statistical Methods (3)
Electives (6)

Forensic Chemistry/Drugs & Toxicology
FRSC 644  Forensic Toxicology (3)
FRSC 672  Advanced Drug Analysis (lecture/laboratory) (3)
Electives (6)

Forensic Chemistry/Trace
FRSC 681  Analysis of Fire Debris & Explosives (lecture/laboratory) (3)
FRSC 682  Forensic Analysis of Paint & Polymers (lecture/laboratory) (3)
Electives (6)

Forensic Physical Evidence
FRSC 661  Analysis of Pattern Evidence (lecture/laboratory) - OR –
FRSC 662  Firearms & Toolmark Identification (lecture/laboratory) (3)
FRSC 665  Scientific Crime Scene Investigation (lecture/laboratory) (3)
Electives (6)
Curriculum Course Requirements (cont.)
Selected Electives (6 credits)

FRSC 505  Forensic Entomology
FRSC 591  Special Topics (3)
FRSC 644  Forensic Toxicology (3)
FRSC 661  Analysis of Pattern Evidence (lecture/laboratory) (3)
FRSC 662  Firearms & Toolmark Identification (lecture/laboratory) (3)
FRSC 663  Forensic Medicine (3)
FRSC 665  Scientific Crime Scene Investigation (lecture/laboratory) (3)
FRSC 672  Advanced Drug Analysis (lecture/laboratory) (3)
FRSC 676  Advanced Forensic DNA Analysis (lecture/laboratory) (3)
FRSC 680  Forensic Psychiatry (3)
FRSC 681  Analysis of Fire Debris & Explosives (lecture/laboratory) (3)
FRSC 682  Forensic Analysis of Paint & Polymers (lecture/laboratory) (3)
FRSC 692  Forensic Science Independent Study (3)
BIOC 503  Biochemistry, Cell, & Molecular Biology I (5)
BIOC 504  Biochemistry, Cell, & Molecular Biology II (5)
BIOL 540  Molecular Genetics (3)
BIOC 605  Molecular Biology (3)
BNFO 507  Essentials of Molecular Biology (3)
HGEN 501  Human Genetics (3)
HGEN 614  Human Biochemical & Molecular Genetics (3)
BIOL 693  Current Topics – Molecular Biology (1)
CRJS 591  Special Topics (3)
PHTX 535  Introduction to Toxicology (4)
Other electives may be permitted with permission of adviser (see track guides).

*Courses required first fall semester upon entry into Forensic Science graduate program
†This course is one credit; three credits total must be taken; one credit must be completed in each semester of the first full year of enrollment
FRSC 505 Forensic Entomology

Semester course; 3 lecture hours. 3 credits. Prerequisite: Permission of Instructor. Focuses on the proper techniques in the taxonomic identification of forensic insects and proper methods of postmortem interval determinations. Students will be responsible for the identification of insects, a reference collection of specimens, and the processing of a mock crime scene for entomological evidence. (Not offered on a regular basis)

FRSC 570 Forensic Science Seminar

Semester course; 1 lecture hour. 1 credit. A seminar course featuring presentations by faculty, crime laboratory staff, students, and visiting lecturers. Instruction includes discussions of research and developments and current topics in various forensic science disciplines and related fields. Must be repeated a minimum of three times for three credits. (Offered every semester)

FRSC 591 Topics in Forensic Science

Semester course; variable lecture hours. 1-3 credits; maximum of six credits for all forensic science topic courses may be applied to major. Prerequisite: Graduate standing in the forensic science program or permission of instructor required for enrollment. A study in selected topics in forensic science. See the Schedule of Classes for specific topics to be offered each semester and additional prerequisites.

FRSC 644/PHTX 644 Forensic Toxicology

Semester course; 2 lecture/2 laboratory hours. 3 credits. Lecture and demonstrations in which common poisons and groups of poisons are discussed as to detection, diagnosis and treatment of poisoning. Demonstrations include basic principles of analytical toxicology, forensic science and courtroom testimony.

FRSC 661 Analysis of Pattern Evidence

Semester course; 2 lecture/3 laboratory hours. 3 credits. Prerequisites: FRSC 673 and FRSZ 673L or equivalents. This course covers topics in Pattern Evidence analysis including analysis of latent prints, impression evidence, and bloodstain pattern analysis as applied to forensic casework. The course covers both the theoretical and practical aspects, using lectures and laboratory exercises focusing on the collection, analysis of, and interpretation of pattern evidence.
Curriculum Course Descriptions (cont.)

FRSC 662 Firearm and Toolmark Identification

Semester course; 2 lecture/3 laboratory hours. 3 credits. Prerequisites: FRSC 673 and FRSZ 673L or equivalents. This course covers topics in Firearm and Toolmark Identification as applied to forensic casework. The course covers both the theoretical and practical aspects, using lectures and laboratory exercises.

FRSC 663 Forensic Medicine

Semester course; 3 lecture hours. 3 credits. Covers the fundamentals of forensic medicine including topics such as forensic death investigations, postmortem changes, time-of-death determinations, identification of unknown human remains and the forensic pathology of natural and traumatic deaths in adults and children. The characteristics and diagnosis of various types of trauma as well as the characteristics of common natural diseases that cause sudden death will be presented.

FRSC 665 Scientific Crime Scene Investigation

Semester course; 3 lecture and/or laboratory hours. 3 credits. This course presents the theory and techniques of scientific crime scene investigation including: recognition, documentation, collection, and enhancement of physical evidence. A comprehensive introduction to the use of physical evidence for crime scene reconstruction is presented.

FRSC 670 Forensic Evidence and Criminal Procedure

Semester course; 3 lecture hours. 3 credits. Presents the law of criminal procedure and rules of evidence as applied to forensic science. Explores issues of scientific versus legal burdens of proof, legal terminology and trial procedure.

FRSC 671 Instrumentation in Forensic Chemistry

Semester course; 3 lecture hours. 3 credits. Theory and applications of chromatography, mass spectrometry and spectroscopy as used in modern crime laboratories. Instruction will focus on instrumental analysis as applied to drug analysis, toxicology, fire debris identification and general trace evidence examination.
Curriculum Course Descriptions (cont.)

FRSC 672 Advanced Drug Analysis

Semester course; 3 lecture and/or laboratory hours. 3 credits. Isolation and identification of abused drugs emphasizing the analysis of unknowns, problems encountered in analysis, and chain of custody issues.

FRSC 673 Forensic Microscopy

Semester course; 2 lecture hours. 2 credits. This course establishes the foundation for the theory of microscopy. The knowledge acquired in this course can be applied to forensic disciplines such as firearms examinations, forensic biology, controlled substances, questioned documents and trace evidence.

FRSC 675 Forensic Serology & DNA Analysis

Semester course; 2 lecture hours. 2 credits. This course presents the theory and methodology used for the examination and identification of body fluid stains and determination of species. The course also provides students an introduction to the theory and methodology of forensic DNA analysis as well as forensic DNA quality control issues. Instruction will focus on molecular biology techniques as they are applied in a forensic DNA crime laboratory setting.

FRSC 676 Advanced Forensic DNA Analysis

Semester course; 2 lecture/3 laboratory hours. 3 credits. This course focuses on the specific principles and modern procedures used for analysis of forensic nuclear and mitochondrial DNA evidence. Other topics include current research and development for forensic DNA instrumentation and applications, statistical interpretation of results, and case report writing. Students gain individualized, hands-on experience with DNA procedures and instrumentation in the laboratory exercises. Students will process mock forensic casework.

FRSC 677 Expert Testimony in Forensic Science

Semester course; 3 lecture hours. 3 credits. Examines forensic testimony in the courtroom, communication of scientific findings to a general audience, public speaking skills, trial preparation and cross-examination in moot court format. This course should be taken after completion of the first year of the program.
Curriculum Course Descriptions (cont.)

FRSC 680/CRJS 680 Forensic Psychiatry

Semester course; 3 lecture hours. 3 credits. Guilty mind requirements in criminal law. Competency to stand trial, insanity defense, mental disorder and crime. Behavioral profiling of serial murders and sex offenders. Issues in the use of clinical and statistical prediction methods in criminal justice. (Not currently offered)

FRSC 681 Analysis of Fire Debris and Explosives

Semester course; 2 lecture/3 laboratory hours. 3 credits. Prerequisites: FRSC 671, FRSC 673 and FRSZ 673L or equivalents. This course presents the collection, analysis, and interpretation of fire debris and explosives as they are applied in forensic casework. The course covers the theoretical and practical aspects. Laboratory exercises include hands-on instruction with appropriate instrumentation and techniques, including stereomicroscopy, gas chromatography, GC-MS, thin layer chromatography, HPLC, and FT-IR.

FRSC 682 Forensic Analysis of Paint & Polymers

Semester course; 5 lecture/laboratory hours. 3 credits. Prerequisites: FRSC 671, FRSC 673 and FRSZ 673L or equivalents. This course covers topics in paint & polymer analysis including collection, classification, and analysis of paint and fiber evidence as applied to forensic casework. The course covers the theoretical and practical aspects, using lectures and laboratory exercises. Laboratory exercises include hands-on instruction with appropriate instrumentation and techniques, including stereomicroscopy, microchemical testing, fluorescence molecular tomography, fluorescence microscopy, FT-IR, and polarizing light microscopy.

FRSC 692 Forensic Science Independent Study

Semester course; variable hours. 1-3 credits. Maximum credit for all independent study is 6 credits. The amount of credit must be determined, and written permission of instructor and program director must be obtained prior to registration for this course. A course designed to provide an opportunity for independent research in an area of forensic science. The products of this experience will be an oral presentation at a campus seminar and written report.
Curriculum Course Descriptions (cont.)

FRSC 793 Forensic Science Laboratory Internship

Semester course; variable laboratory hours. 1-3 credits. 100 hours of laboratory work per credit. 3 credits or 300 hours of laboratory work required for graduation. Students must apply to the program director for this internship a semester in advance. Students conduct replication, validation or other analyses in a specialization area of interest in a laboratory and gain practical experience in crime laboratory practices and methods. The product of this experience will be presentations at a campus seminar and/or professional conference, and a written report. This capstone course should be taken near the end of the degree program.

FRSZ 673L Forensic Microscopy Laboratory

Semester course; 3 laboratory hours. 1 credit. This course establishes the foundation for the application and methodology of microscopy. The knowledge acquired in this course can be applied to forensic disciplines such as firearms examinations, forensic biology, controlled substances, questioned documents and trace evidence. The course consists of laboratory exercises and demonstrations.

FRSZ 675L Forensic Serology & DNA Analysis Laboratory

Semester course; 3 laboratory hours. 1 credit. This course presents the chemical, immunological, and microscopic laboratory techniques commonly used for the examination and identification of body fluid stains and determination of species. The course provides working knowledge and hands-on practice with basic forensic DNA procedures, including DNA extractions, quantitation, PCR amplification and analysis/genotyping. Instruction focuses on molecular biology techniques as applied in a forensic DNA laboratory.

For more course descriptions including applicable courses in other departments consult your advisor or see the searchable course description website: http://www.pubapps.vcu.edu/vcucourses/Default.aspx
The following requirements are in addition to those described for graduate programs in the School of Graduate Studies and the College of Humanities and Sciences.

- Students must complete a minimum of 36 graduate semester credits as outlined in the accompanying list of core and track requirements, including electives.
- Maintenance of an ongoing, cumulative GPA of 3.0 or above is required while enrolled.
- Courses below the 500 level do not count toward degree requirements.
- Receipt of a grade of “C” in two or more courses will constitute an automatic dismissal from the forensic science graduate program.
- Receipt of a grade of “D” or lower in any one course will constitute an automatic dismissal from the forensic science graduate program.
- Continuous, full-time enrollment in the graduate program is required. Interruption in continuous enrollment or full-time status for any reason without a leave of absence approved by the Forensic Science Graduate Committee will require that students reapply to the program.
- Request for credit for graduate course work taken at other institutions must be submitted to the director of graduate studies in Forensic Science and will be considered on a case-by-case basis by the Forensic Graduate Committee. A maximum of 6 credit hours of accepted coursework may be applied.
- If course work deficiencies are identified, students may be required to take additional foundational courses beyond those listed.
### BIOLOGY TRACK

#### 1st Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 673 Forensic Microscopy (2)</td>
<td>FRSC 670 For. Evidence &amp; Criminal Procedure (3)</td>
</tr>
<tr>
<td>FRSZ 673L Forensic Microscopy Lab (1)</td>
<td>FRSC 661 Analysis of Pattern Evidence (3)*</td>
</tr>
<tr>
<td>FRSC 675 Forensic Serology &amp; DNA (2)</td>
<td>FRSC 676 Advanced Forensic Biology (3)</td>
</tr>
<tr>
<td>FRSZ 675 Forensic Ser. &amp; DNA Lab(1)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 671 Instrumentation For. Chem. (3)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits - 10</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 516 Population Genetics (3)*</td>
<td>FRSC 677 Expert Testimony in Forensic Science (3)</td>
</tr>
<tr>
<td>Track Elective (3)</td>
<td>Track Elective (3)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td></td>
</tr>
<tr>
<td>FRSC 793 Forensic Lab Internship (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits – 6</strong></td>
</tr>
</tbody>
</table>

#### Note:

◊ In order to assure that all Biology Track students meet current DNA Advisory Board Standards for Forensic DNA laboratories, students and advisors should assure that college courses in Biochemistry, Molecular Biology, and Genetics have been successfully completed. All other requirements are met by the core and the track-required specialty courses in this curriculum. If the student has not completed these course requirements, they should take those appropriate courses for their elective credits.

◊ Additionally, all students are strongly encouraged to take a graduate level molecular biology course, even if they had a similar undergraduate course.

### Suggested Electives – Biology Track:

- BIOC 503 Biochemistry, Cell, & Molecular Biology (Fall focus: Biochemistry)
- BIOC 504 Biochemistry, Cell, & Molecular Biology (Spring focus: Molecular Biology)
- BIOL 540 Fundamentals of Molecular Genetics (Spring)
- BNFO 507 Essentials of Molecular Biology (Spring)
- HGEN 501 Human Genetics (Fall)
- HGEN 614 Human Biochemical & Molecular Genetics (Fall)
- FRSC 644 Forensic Toxicology (Spring)
- BIOL 693 Current Topics – Molecular Biology (Fall/Spring)
- FRSC 663 Forensic Medicine (Spring)
- STAT 543 Statistical Methods I
- FRSC 672 Advanced Drug Analysis (Spring)
- FRSC 591 Topics in Forensic Science

*Students may opt to take this course OR FRSC 662 Firearm & Toolmark Identification.

† Students may opt to take STAT/BIOS/EPID 543 Statistical Methods I instead to meet this requirement; however, students are strongly encouraged to take the BIOL 516 course when offered.
### CHEMISTRY TRACK/ DRUGS & TOXICOLOGY

**1st Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 673 Forensic Microscopy (2)</td>
<td>FRSC 670 For. Evidence &amp; Criminal Procedure (3)</td>
</tr>
<tr>
<td>FRSZ 673L Forensic Microsc. Lab (1)</td>
<td>FRSC 672 Advanced Drug Analysis (3)</td>
</tr>
<tr>
<td>FRSC 675 Forensic Serology &amp; DNA (2)</td>
<td>FRSC 644 Forensic Toxicology (3)</td>
</tr>
<tr>
<td>FRSZ 675 Forensic Ser. &amp; DNA Lab (1)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 671 Instrumentation For. Chem. (3)</td>
<td>FRSC 644 Forensic Toxicology (3)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits – 10</strong></td>
</tr>
</tbody>
</table>

**2nd Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 662 Firearm &amp; Toolmark Identification.* (3)</td>
<td>FRSC 677 Expert Testimony in Forensic Science (3)</td>
</tr>
<tr>
<td>Track Elective (3)</td>
<td>Track Elective† (3-4)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 793 Forensic Lab Internship (3)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits – 6 -7</strong></td>
</tr>
</tbody>
</table>

**Note:**

In order to assure that all Chemistry Track students are eligible for employment in chemistry-related sections of private and/or public crime laboratories, it is strongly recommended that college coursework in Physical Chemistry, Quantitative Analysis, and Instrumental Analysis have been successfully completed. If the student has not completed these course recommendations, they should take those appropriate courses for their elective credits.

**Suggested Electives – Chem/ Drugs & Tox Track:**

- PHTX 535 Intro to Toxicology (Spring) – (4)
- CHEM 506 Introduction to Spectroscopic Methods in Organic Chemistry (Spring) – (1.5)
- CHEM 532 Advanced Analytical Chemistry
- CHEM 591 Topics in Chemistry – (1-6)
- CHEM 631 Separation Science (Spring)
- CHEM 633 Mass Spectroscopy – (1.5)
- CHEM 504 Advanced Organic Chemistry I (Fall & Spring)
- BIOC 503 Biochemistry, Cell, & Molecular Biology (Fall focus: Biochemistry)
- FRSC 663 Forensic Medicine (Spring)
- STAT 543 Statistical Methods I
- FRSC 681 Analysis of Fire Debris & Explosives (Fall)
- FRSC 682 Forensic Analysis of Paints & Polymers (Spring)
- FRSC 591 Topics in Forensic Science

*Students may opt to take this course OR FRSC 661 Analysis of Pattern Evidence.

†Though PHTX 535 Intro to Toxicology is not required, students in this track are strongly encouraged to take it; however, it is currently only offered in the spring. Students should take FRSC 644 prior to taking PHTX 535. (Consult with your advisor.)
# CHEMISTRY TRACK/TRACE

## 1st Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 673 Forensic Microscopy (2)</td>
<td>FRSC 670 For. Evidence &amp; Criminal Procedure (3)</td>
</tr>
<tr>
<td>FRSZ 673L Forensic Microsc. Lab (1)</td>
<td>FRSC 661 Analysis of Pattern Evidence (3)*</td>
</tr>
<tr>
<td>FRSC 675 Forensic Serology &amp; DNA (2)</td>
<td>FRSC 682 For. Analysis of Paints &amp; Polymers (3)</td>
</tr>
<tr>
<td>FRSZ 675 Forensic Ser &amp; DNA Lab (1)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 671 Instrumentation For. Chem.(3)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td>Total Credits - 10</td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits - 10</strong></td>
</tr>
</tbody>
</table>

## 2nd Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 681 Analysis of Fire Debris &amp; Explosives (3)</td>
<td>FRSC 677 Expert Testimony in Forensic Science (3)</td>
</tr>
<tr>
<td>Track Elective† (3)</td>
<td>Track Elective (3)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td>Frsc 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 793 Forensic Lab Internship (3)</td>
<td>Total Credits - 10</td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits – 6</strong></td>
</tr>
</tbody>
</table>

### Note:

In order to assure that all Chemistry Track students are eligible for employment in chemistry-related sections of private and/or public crime laboratories, it is strongly recommended that college coursework in Physical Chemistry, Quantitative Analysis, and Instrumental Analysis have been successfully completed. If the student has not completed these course recommendations, they should take those appropriate courses for their elective credits.

### Suggested Electives – Chem/Trace Track:

- FRSC 672 Advanced Drug Analysis (Spring)
- CHEM 506 Introduction to Spectroscopic Methods in Organic Chemistry (Spring) – (1.5)
- CHEM 532 Advanced Analytical Chemistry
- CHEM 550 Introduction to Polymer Chemistry
- CHEM 580 Mechanical Properties of Plastics and Polymers (Spring)
- CHEM 591 Topics in Chemistry – (1-6)
- CHEM 631 Separation Science (Spring)
- CHEM 633 Mass Spectroscopy – (1.5)
- FRSC 665 Scientific Crime Scene Investigation (Fall)
- FRSC 644 Forensic Toxicology (Spring)
- PHTX 535 Intro to Toxicology (Spring)
- FRSC 662 Firearm & Toolmark Identification (Fall)
- FRSC 591 Topics in Forensic Science

*Students may opt to take this course OR FRSC 662 Firearm & Toolmark Identification.
† Students in this track are strongly encouraged to take FRSC 665 Scientific Crime Scene Investigation for this elective (though not required).
# PHYSICAL EVIDENCE TRACK

## 1st Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 673 Forensic Microscopy (2)</td>
<td>FRSC 670 For. Evidence &amp; Criminal Procedure (3)</td>
</tr>
<tr>
<td>FRSZ 673L Forensic Microsc. Lab (1)</td>
<td>FRSC 661 Analysis of Pattern Evidence* (3)</td>
</tr>
<tr>
<td>FRSC 675 Forensic Serology &amp; DNA (2)</td>
<td>Track Elective (3)</td>
</tr>
<tr>
<td>FRSZ 675 Forensic Ser. &amp; DNA Lab (1)</td>
<td>FRSC 570 Forensic Science Seminar (1)</td>
</tr>
<tr>
<td>FRSC 671 Instrumentation For. Chem. (3)</td>
<td></td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits - 10</strong></td>
</tr>
</tbody>
</table>

## 2nd Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRSC 662 Firearm &amp; Toolmark Identification* (3)</td>
<td>FRSC 677 Expert Testimony in Forensic Science (3)</td>
</tr>
<tr>
<td>FRSC 665 Scientific Crime Scene Investigation (3)</td>
<td>Track Elective (3)</td>
</tr>
<tr>
<td>FRSC 570 Forensic Science Seminar (1)</td>
<td></td>
</tr>
<tr>
<td>FRSC 793 Forensic Lab Internship (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits - 10</strong></td>
<td><strong>Total Credits – 6</strong></td>
</tr>
</tbody>
</table>

**Note:**
Electives for this track will depend on the student’s individual career goals and should be discussed and planned thoroughly with the academic advisor.

**Suggested Electives – Physical Track:**

- FRSC 681 Analysis of Fire Debris & Explosives (Fall)
- FRSC 682 Forensic Analysis of Paints & Polymers (Spring)
- FRSC 644 Forensic Toxicology
- FRSC 663 Forensic Medicine
- FRSC 591 Topics in Forensic Science
- CRJS 550 Professional Ethics & Liability
- CRJS 591 Topics in Criminal Justice
- FRSC 672 Advanced Drug Analysis (Spring)
- FRSC 676 Advanced Forensic Biology (Spring)

*Students in this track must take both FRSC 661 Analysis of Pattern Evidence AND FRSC 662 Firearm & Toolmark Identification.*
• Students would choose only one pattern course (FRSC 661 or FRSC 662), except for those students in the Physical Track. For 2008-2009, FRSC 662 will be offered both semesters; FRSC 661 will be offered only in the spring 2009 semester.

• Students may complete the last seminar (FRSC 570) credit during either semester of their 2nd year; however, a minimum of 3 must be completed with 2 credits in the first year. Seminars will be scheduled around all other Forensic Science courses offered.

• The FRSC 793 Internship may be completed as suggested or alternatively, students may choose to complete this requirement during the summer semester between years or spring semester of their 2nd year.

• Depending on how the courses are taken, it is possible that one or both semesters of the 2nd year require less than 9 credits for completion of the degree. Please note, however, that 9 credits are required for full-time student status. Students should check with their financial aid advisors to determine how many credits are required to qualify for and retain financial aid. Students needing to complete additional coursework to be full-time are encouraged to work with their advisor to select an additional relevant coursework.
1. General information
   a) Students must have achieved an overall GPA of 3.0 ("B") in his/her graduate study at VCU in order to enroll in FRSC 793.
   b) 3 credits of Internship will be required and only 3 credits of Internship will be accepted toward the 36 required credits for graduation.
   c) Students may register for an additional 1-2 credits (not to exceed 5 total credits) of Internship for completion of their initial proposed project. This will require the permission of the mentor and the Graduate Director. If permission is requested after the “FRSC 793: Internship Request Form” has been turned it, a “FRSC 793: Request for Additional Credits” form must be completed and turned in. However, requests for additional credits will not be considered after the student has a scheduled internship seminar date/time with the FRSC 570 Forensic Science Seminar Instructor.
   d) A minimum of 300 hours of supervised laboratory work that includes an independent research project is required in order to receive 3 credits. If additional credits are requested, another 100 hours of supervised laboratory work is required for each additional credit.
   e) In addition, students are required to complete extensive shadowing of an examiner in their discipline or section of interest. This shadowing shall include observing how typical samples are received, processed through the laboratory, and how data is analyzed and reported. Though not required, students are also encouraged to view testimony of an examiner if/when possible.
      - Students working in faculty research laboratories (on campus) should consult with the Graduate Director to arrange shadowing experience.
   f) With the written permission of the laboratory supervisor and graduate director, students may complete FRSC 793 Internship credits over two semesters by enrolling in 1-2 credits each semester. A letter grade will not be assigned until all FRSC 793 credits and requirements (seminar, paper) are completed.
   g) An honorarium may be provided to Internship supervisors from the VA Department of Forensic Science. A stipend to cover laboratory expenses and supplies may be supplied to on-campus Internship supervisors who are current VCU full-time faculty members.
      - DFS mentors and VCU faculty will receive only one honorarium/stipend per project; the honorarium amount is not related to the total number of registered credits. Honorariums may be split between co-mentors.
      - No honorariums or stipends will be provided for Internships that are completed at other universities or private companies.
      - Honorariums can be split between co-mentors.
Internship (cont.)

h) Failing to follow all policies or meet all requirements specified in this document, including deadlines, will result in the lowering of the final grade by one letter grade. Enforcement of this policy will be at the discretion of the Graduate Director after consultation with the internship supervisor/mentor.

2. Enrollment procedure

a) In the semester prior to enrollment in FRSC 793, the student should identify an internship supervisor with whom he/she will conduct the internship and agree on a general project.
   - Projects must have a valid original research component.

b) Request Form: Students should complete the “FRSC 793: Internship Request Form”, sign it, obtain the Committee members’ signatures (3), and deliver it to the Graduate Director for his/her signature.
   - The committee must include the laboratory supervisor or mentor, one VCU Forensic Science faculty member, and one additional forensic science professional familiar with the discipline of interest.
   - The “FRSC 793: Internship Request Form” must be completed and on file with the Graduate Director 2 weeks prior to the last day of classes in the semester preceding desired enrollment.
     - All projects and Request Forms must be approved by the Graduate Director
     - Internship Request Forms for students wishing to enroll in summer or fall internships are due two weeks prior to the end of classes in the preceding spring semester.
     - Internship Request Forms for students wishing to enroll in spring internships are due two weeks prior to the end of classes in the preceding fall semester.
   - Internships completed at VA-DFS laboratories must be approved by the Director of Technical Services; this signature should also be obtained prior to final delivery to the Graduate Director.
     - VA-DFS requires interns to complete the state application form (available online) and other paperwork. Please inquire with your mentor before beginning internship. All paperwork must be completed and on file prior to beginning in the laboratory.
   - Internships completed at other agencies outside of VCU may require lengthy application processes and/or background checks before students can begin working in the laboratory. Students are responsible for inquiring about these policies and following all agency guidelines regarding these issues.

c) Proposal: By the end of the third week of the semester in which the student is enrolled for the Internship (fall, summer, or spring), a proposal must be submitted to the Graduate Director for approval.
   - Students should work with the laboratory supervisor/mentor and obtain their approval of the proposal prior to submitting it to the Graduate Director.
   - Students who fail to meet this deadline will be dropped from the class rolls the following Monday.
Internship (cont.); Proposal (cont.):

- The 4-6 page proposal details the work in which the student will be engaged and should include:
  - An introduction providing overview and relevant background information
  - Specific goals and objectives of the proposed work
  - A description of the methods and materials to be used, including number of samples and origin, number of replicates, instrumentation to be used, and data analysis.
  - A description of how your work will impact or advance the field or laboratory.
  - A week-by-week time table for the conduct and completion of the work
  - Appropriate references

- Mentors and other committee members should review the proposal and sign it (indicating they have received and reviewed) prior to submission to the Graduate Director. The signed hardcopy should be delivered to the Graduate Director for final approval.

3. Requirements for completion of the internship
   a) Students are required to meet (either individually or as a group) with their committee members at least once during the semester of enrollment.
      - The purpose of this meeting will be to update the committee on progress, ask questions, seek advice, address concerns, and provide a timetable for completion of project, report, and seminar.
      - At this meeting (or before), the committee members must agree upon the format and content of the shadowing experience that shall be required of the student.
      - This committee meeting should be held at or around the halfway point in the semester of enrollment and should occur no later than 4 weeks prior to the end of the semester of enrollment. Planning of this meeting is the burden of the student.

   **Documentation from this meeting should be submitted to the Graduate Director. Documentation should be signed by the supervisor/mentor.**
Internship (cont.); Written report (cont.)

b) Unless otherwise specified by the committee, a complete, near final draft of the written report must be submitted to all committee members no later than two calendar weeks prior to the scheduled student seminar or the last day of classes for the semester of enrollment (whichever comes first).

- During this period, the student is required to work with the committee members to make recommended changes/edits to the paper.
- The final report with edits completed must be submitted to the committee no later than 48 hours prior to seminar date. The final report submitted at that time will be used to assess a final grade for the student Internship.
- The format and contents of the written report should follow the style of a journal manuscript. For additional guidance, see attached “FRSC 793: Internship Report Guidelines” and/or a forensic science journal from your discipline. The committee should be informed of which journal format is followed.
- At minimum, the report should be 15 pages. Figures/tables/charts, references, and appendices will not count towards this minimum page requirement.
- At minimum, the report should include:
  ◊ A title page that includes the students name and semester of enrollment along with the names of all committee members.
  ◊ An abstract not exceeding 400 words. Abstracts should be submitted on a separate page, just after the title page.
  ◊ An introduction providing background information and the goals and/or objectives of the work.
  ◊ A research methods section describing the methods and techniques used.
  ◊ A research results section detailing the results of the work. This should include reference to data that is displayed in the form of figures, charts, and tables.
  ◊ A discussion/conclusion section detailing the major discussion points and conclusions of the research completed.
  ◊ References (literature cited).
  ◊ Critical data should be displayed in figures, charts, or tables. Each should be displayed on a separate page and attached at the end sequentially (in the order of reference) at the end of the paper. Figures and charts should include a figure legend.
  ◊ An appendix should be attached that describes the shadowing experience and/or any other Internship experiences not directly related to the research project completed.
- Students will be encouraged to publish the results of their research.
Internship (cont.); Seminar (cont.)

c) Each intern must present their research project at a campus seminar.
   - The seminar presentation will be for approximately 40-45 minutes with an additional 10 minutes for questions.
   - This seminar *may or may not* be completed in the FRSC 570 Forensic Science Seminar Series depending upon scheduling and availability. If no FRSC 570 slots are available, students are to make arrangements for a seminar through the Departmental administrative assistant and/or their mentor.
   - All committee members must be present for evaluation of the seminar or available over videoconferencing. If neither scenario is possible, the seminar may be recorded for viewing/evaluation of the seminar at a later date.
   - Students are encouraged to review and practice their presentation with their Internship supervisor prior to the date of the seminar.
   - After submission of the completed “FRSC 793: Internship Request Form”, a seminar date should be scheduled with the FRSC 570 Instructor, the Mentor, or the Departmental Administrative Assistant.
      - Summer interns will complete their seminars early in the following fall semester; fall and spring interns will complete their seminars late in the semester of enrollment.
      - All forensic science Master’s students will be invited to attend the presentation, as well as interested faculty and DFS staff.
      - Committee’s are encouraged to meet just following the seminar to ask questions of the student and to complete evaluation of the student.
      - Students are encouraged to present their research at a professional meeting.
   - Many agencies and private companies require lengthy review and approval of presentations and reports that are based on data acquired at that agency. In those agencies/companies, this is generally required prior to that data being discussed or presented. *Students should be aware of and carefully follow all agency/company guidelines regarding these issues.*
   - All policies and deadlines specified herein are subject to enforcement per policy dictated in *1.h* on page 1 of this document.
4. Grading of Internship

- The Internship committee of three, including the Internship supervisor/mentor, will assign a final letter grade for the Internship upon completion of the seminar. For this purpose, the committee will be required to meet at least once upon completion of the seminar. Committee’s are encouraged to meet just following the seminar to ask questions of the student and to complete evaluation & grading of the student.

- Each committee member will complete written evaluations of the written report and seminar. In addition, the internship supervisor/mentor will complete a written evaluation of the intern’s laboratory performance. Evaluation forms should be provided to the committee members by the student.

- The final grade will be determined based on the intern’s laboratory performance (50%), written report (25%) and oral presentation (25%). Students must receive a final average grade of “B” or higher to receive pass this course requirement.

- The internship supervisor/mentor will conduct the final committee meeting, compile the evaluations, assign a final grade, and report the final grade to the Graduate Director. The grade should be submitted in writing (email is preferred).

- The grade, hardcopies of the paper and presentation, and copies of all evaluation forms must be submitted to the Graduate Director no later than 2 weeks prior to the end of the semester of enrollment or the semester of the seminar, which ever comes last.

- A grade of “I” will be submitted for those students who have completed the semester of enrollment but not yet completed all requirements. Upon completion of the requirements and receipt of all required documents, the grade will be changed to the grade assigned by the supervisor/mentor. Note: If the requirements are not met and grade finalized by the last day of classes in the next term (after enrollment), the grade of “I” will be automatically converted to a failing grade.
**FRSC 793 Forensic Science Laboratory Internship Request Form**

This form must be completed and delivered to the Forensic Science Graduate Director the semester PRIOR to performing the Internship, two weeks prior to the end of classes. Internship Committees must have at least 3 members and include the mentor, a VCU Forensic Science Faculty member and an additional Forensic Science professional. Including a fourth committee member (faculty or practitioner) is optional. Committee members must be approved by the Internship Supervisor. Internships to be completed at DFS must be approved by the DFS Director of Technical Services.

### Intern Information

<table>
<thead>
<tr>
<th>Intern’s name</th>
<th>Social Security #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project/Research proposed topic

Semester(s), credit(s), and year of internship

### Internship Supervisor

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title and Affiliation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Committee Member

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title and Affiliation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Committee Member

Name

Title and Affiliation

Address

City  State  Zip Code

Email  Phone  Fax

Committee Member (Optional)

Name

Title and Affiliation

Address

City  State  Zip Code

Email  Phone  Fax

Internship proposed and accepted - Signatures

Intern  Date

Supervisor  Date

Committee Member  Date

Committee Member  Date

Committee Member (Opt)  Date

VA-DFS Dir. Tech. Serv. (if applicable)  Date

Graduate Director  Date
FRSC 692-Independent Study Guidelines and Procedures

General information:

- Students must have achieved an overall minimum overall GPA of 3.0 in his/her graduate study at VCU in order to enroll in this course.
- A maximum of six credits of independent study may be accepted towards the 36 credits required for the MS in Forensic Science degree.
- A minimum of four hours per week of supervised laboratory activity per credit hour is required.
- Failing to follow all policies or meet all requirements specified in this document, including deadlines, will result in the lowering of the final grade by one letter grade. Enforcement of this policy will be at the discretion of the Graduate Director after consultation with the independent study mentor.
- Many outside agencies and private companies, including VA DFS, require lengthy application processes and background checks before students can begin working in the laboratory. Further, some will also require lengthy review and approval of presentations and reports that are based on data acquired at that agency. In those agencies/companies, this is generally required prior to that data being discussed or presented. Students should be aware of and carefully follow all agency/company guidelines regarding these issues.

Enrollment Procedure:

- In the semester prior to enrollment in FRSC 692, the student should identify an independent study mentor with whom he/she will conduct the internship and agree on a general project.
- Students should enroll during the pre-registration, registration or drop/add period. Note: The Graduate Director’s permission is not required to complete the registration at this point.
- Students should complete a FRSC 692 Intent and Request Form, obtain a signature from the faculty member (mentor) with whom he/she will conduct the independent study and deliver the form to the Graduate Director by the first day of classes during the semester of enrollment.
  ◊ Independent Study requests not in by the stated deadlines will be denied and the student will be dropped from the course the following Monday.
  ◊ The Graduate Director will approve all mentors and projects. Note: Mentors working at institutions other than VCU may also require approval from their normal supervisor(s). Students are therefore encouraged to start this process as early as possible.
  ◊ Independent Study projects to be completed at VA-DFS laboratories must be approved by the Director of Technical Services; in this case, this signature should also be obtained prior to final delivery to the Graduate Director.
  
  VA-DFS requires interns to complete the state application form (available online), confidentiality statement, and other paperwork. Please inquire with your mentor before beginning internship. All paperwork must be completed and on file prior to beginning in the laboratory.
Independent Study (cont.)

- Proposal: By the end of the second week of the semester of enrollment, a proposal must be submitted to the Graduate Director for approval.
  - Proposals not in by the stated deadline will be dropped from the course the following Monday.
  - Students should receive assistance from their mentor during preparation of the proposal.
  - The 3-6 page proposal should detail the work in which the student will be engaged, including:
    * An introduction providing background information and the goals and/or objectives of the work
    * Specific goals & objectives of the proposed work.
    * A description of the methods and materials to be used, instrumentation to be used, and data analysis methods.
    * A timetable for the conduct and completion of the work including the submission of a final report and the oral presentation.
    * Appropriate references.

- Mentors should review the proposal, approve of the proposal, and sign it prior to submission to the Graduate Director. The signed hardcopy should be delivered to the Graduate Director for final approval.

Requirements for Completion of Independent Study:

- Written Report – Students are required to submit a paper detailing their research.
  - This report should be a minimum of 15 typed pages. Figures/tables/charts, references, and appendices will not count towards this minimum page requirement.
  - The format and contents of the written report should follow the style of a journal manuscript. For additional guidance, see “FRSC 793: Internship Report Guidelines” and/or a science journal from your discipline.
  - At minimum, the report should include:
    * An introduction providing background information and the goals and/or objectives of the work
    * A research methods section describing the methods and techniques used
    * A research results section detailing the results of the work. This should include reference to data that is displayed in the form of figures, charts, and tables.
    * A discussion/conclusion section detailing the major discussion points and conclusions of the research completed.
    * References (literature cited).
Independent Study (cont.)

* Critical data should be displayed in numbered figures, charts, or tables. Each should be displayed on a separate page and attached at the end sequentially (in the order of reference) at the end of the paper. Figures and charts should include a figure legend.

◊ Students will be encouraged to publish the results of their research.

- Seminar – Students are required to present their research at a seminar.
  ◊ The seminar presentation will be for approximately 20-40 minutes, with ~5-10 minutes for questions.
  ◊ This seminar may or may not be completed in the FRSC 570 Forensic Science Seminar Series depending upon scheduling and availability. If no FRSC 570 slots are available, students are to make arrangements for a seminar through the Departmental administrative assistant.
  ◊ Students are encouraged to present their research at a professional meeting.

Grading of Independent Study:

- The final letter grade will be determined by the mentor based on the following criteria:
  ◊ Laboratory Performance 50%
  ◊ Seminar 25%
  ◊ Report 25%

- Evaluation forms will be provided upon request to the mentor. These forms may be useful in evaluating the student’s performance.
- Documentation of the seminar and a copy of the final paper must be provided to the Graduate Director for completion of the course and finalization of the grade.

The final grade should be submitted by the mentor in writing (email is preferred) to the Graduate Director. The grade must be submitted no later than 2 weeks prior to the end of the semester of enrollment or the semester of the seminar, whichever comes last.
FRSC 692, Forensic Science Independent Study

Intent and Request Form

I, ___________________________________________________ (name and VCU student #),

request permission to enroll in FRSC 692 Independent Study for

_______________________ (semester and year) for _______ credits, under the supervision

of _______________________________________ (faculty/mentor).

This form indicates your intention to take FRSC 692 and must be submitted to the
Graduate Director by the first day of classes during the semester of enrollment. **NOTE:**
**THIS FORM DOES NOT REGISTER YOU FOR FRSC 692.**

Intent and Request Form Reviewed:

Supervising Faculty/Mentor Signature ____________________________________

Date ____________________________________

Graduate Director Signature ____________________________________________

Date ____________________________________

To finalize registration for the course, the supervising faculty member/mentor must have ap-
proved the student’s proposal (see FRSC 692 Policies), signed a hardcopy, and have the student
submit it to the Graduate Director by the **end of the second week of the semester of enrollment.** If this intent form or the approved proposal is not received by the deadline, the student
will be administratively withdrawn from the course.
Frequently Asked Questions about Internships and Independent Studies

When is the best time to complete my Internship?

Most students take their internship course during the summer semester between their first and second year or during the fall or spring semester of their second year. Students may not take their internship prior to the completion of the 1st year.

How do I choose my mentor for the Internship?

You can begin to select your internship mentor or supervisor once you have identified the specialty in which you would like to complete the internship. Some specialty areas frequently chosen include: Bloodstain Pattern Analysis; Breath Alcohol; Controlled Substances; Firearms and Toolmark; Forensic Biology (DNA); Forensic Imaging; Forensic Toxicology; Latent Fingerprint and Impression Evidence; Questioned Document; Trace Evidence. If you request an internship at DFS, the mentor/supervisor will be chosen by the section supervisor/Chief, with the approval of the Director of Technical Services (DFS) and Graduate Director. In addition to DFS, internships may be completed with VCU Forensic Science faculty or at other outside public or private laboratories upon approval by the Graduate Director.

How do I form my committee for the Internship?

The committee must include the laboratory supervisor, one VCU Forensic Science faculty member and one additional forensic science professional familiar with the discipline of interest (approved by the mentor).

What is the difference between the Internship and the Independent study?

Both involve forensic science-related research, a written paper and an oral presentation. Whereas the Internship incorporates both research and “shadowing” components to prepare students for careers as examiners in modern crime laboratories, FRSC 692 emphasizes research and presenting the research in written and oral forms, and does not have a “shadowing” component. FRSC 692 is not required, but may be taken as an elective for students who want to gain additional research experience. Because of the nature of the work in crime laboratories, students are not able to work on active casework during FRSC 793 Internships. Instead, during shadowing, students learn about crime laboratory standard operating procedures, and ethical issues by observing and questioning examiners working on casework as a component of FRSC 793. Additionally, the program director encourages students to select a mentor and project for FRSC 793 based on their primary career choice of forensic science discipline (e.g. Biology, Drugs, Toxicology, Questioned Documents, Trace Analysis). However, FRSC 692 may be completed in an area of forensic science outside of the primary area of interest.
Internship and Independent Study (cont.)

Does my internship have to be completed at DFS?

No, with permission of the Graduate Director, you may complete your internship at a location other than DFS. Internships can be performed at any of the three other Virginia DFS regional laboratories, with VCU Forensic Science faculty, at other public or private forensic laboratories, or at other universities, with permission of the Graduate Director.

Advising

Academic advising is a key component to your graduate experience. Graduate students receive e-mail advisor notification the summer before they begin their studies. Graduate students are required to see their VCU faculty advisor at least once a semester. Registration holds are placed each semester in order to insure that this meeting occurs.

Advisors' contact information:

Tracey Dawson Cruz, Ph.D.; tcdawson@vcu.edu; (804) 828-0642; LFSC Room 313
Bill Eggleston, Ph.D.; weggles@vcu.edu; (804) 827-8596; 1000 W Franklin Room 106
Eric Hazelrigg, M.S.; ejhazelrigg@vcu.edu; (804) 828-0075; LFSC Room 349
Marilyn Miller, Ed.D; mtmiller@vcu.edu; (804) 828-0765; LFSC Room 314
Michelle Peace, Ph.D.; mrpeace@vcu.edu; (804) 827-8591; 1000 W Franklin St., Room 104
Sarah Seashols, M.S.; sseashols@vcu.edu; (804) 827-8597; 1000 W Franklin St., Room 109
Al Poklis, Ph.D; apoklis@vcu.edu; (804) 828-0272; Sanger Hall
Diane Williams, Ph.D.; dkwilliams@vcu.edu; (804) 828-0075; LFSC Room B008

Students may also request and be assigned a professional advisor, usually a practicing professional at DFS.
There are official university policies to address numerous complaint scenarios. VCU policies include:

◊ University Rules and Procedures
◊ Affirmative Action/Equal Opportunity
◊ Rights of Students Under the Family Educational Rights and Privacy Act (FERPA)
◊ VCU Honor System
◊ Grade Review Procedure
◊ Student Conduct
◊ University Guidelines on the Prohibition of Sexual Harassment
◊ Student Sexual Misconduct
◊ Policy Statement on Hazing
◊ Guidelines for Demonstrations on the Campuses
◊ Alcohol and Drugs
◊ AIDS
◊ Computer and Network Resources and Student E-mail

These policies are included in the VCU Resource Guide, located at http://www.students.vcu.edu/rg/.

Formal procedures are available to students throughout the unofficial process. With most situations, the student is encouraged to talk directly with the professor to see if there has been a misunderstanding. If that is not resolved to the student’s satisfaction, students are encouraged to meet with the Graduate Director or Chair of the Department. Should the complaint fail to be resolved at the departmental level, students are referred to the Associate Dean or the Dean of the College.
The Department of Forensic Science has at least 5 teaching assistantships, usually staffed by continuing second year students and new first year students. Primary responsibilities include: prepping teaching laboratories, putting equipment and supplies away following laboratories, inventorying and ordering supplies, assisting with teaching undergraduate Forensic Science laboratories, grading papers, photocopying, and general course support for Forensic Science faculty. These assistantships include a stipend and tuition (housing, books, and other fees are not covered).

All students admitted to the Forensic Science Graduate program will be considered for open TA positions during the admissions review process. Successful applicants for the TA positions have chemistry and/or biological laboratory experience beyond standard course work (for example, working in a laboratory as an independent study, internship, or full or part-time laboratory job). In addition, preference will be given to applicants with some form of prior teaching experience and specifically, experience in the following: making solutions, organizing laboratory protocols and supplies, and maintaining laboratory inventory and purchasing lists. Lastly, potential TAs should have positive attitudes and be team-players, as the selected candidate will work within a group of established TA/ work-study students and faculty to meet the needs of the Department. The students selected for the TA positions will be required to work an average of 20 hours/week.

Students who are selected for open TA positions will be notified during the graduate admissions process.

The Department of Forensic Science’s Emily R. Murphy Graduate Scholarship in Forensic Science is awarded annually by merit to a first year Forensic Science graduate student. Interested and qualified first year graduate students should apply in the spring semester of their first year. The department also acknowledges students for Academic Achievement, Service and Leadership and as Outstanding Graduate student at the departmental diploma ceremony.

Other funding opportunities exist through the VCU Graduate School. Announcements are posted on its web site, [http://www.vcu.edu/graduate/bboard/announcements](http://www.vcu.edu/graduate/bboard/announcements). In addition, the Graduate Student Association offers travel grants for graduate students; information is available at the GSA web page, [http://www.studentorg.vcu.edu/gsa/travelgrants.htm](http://www.studentorg.vcu.edu/gsa/travelgrants.htm).
Emily R. Murphy Graduate Scholarship in Forensic Science

When Emily Murphy was three years old, she dreamed of growing up to be an elephant. But, since that seemed a bit implausible, she opened her mind and began to dream of an occupation more fitting for humans – she decided to become a forensic scientist. Emily received a full tuition scholarship for graduate studies in Forensic Science at Virginia Commonwealth University and earned a teaching assistantship.

Sadly, that is where Emily’s dream ended.

On Nov. 2, 2002, Emily Murphy died in a car accident in Washington, D.C. Always in pursuit of knowledge, she had traveled to Washington that day to tour the Spy Museum.

Emily was a vibrant young woman with a promising future. She was a smart, dedicated student and an inspiration to faculty and students alike. She was only 22 years old.

In Emily’s honor, the College of Humanities and Sciences established the Emily R. Murphy Graduate Scholarship in Forensic Science. Family, friends, alumni, students and faculty have contributed to this fund to bring it to endowment – ensuring that the Emily R. Murphy Graduate Scholarship will be available into perpetuity. The scholarship is awarded each spring to a graduate student in Forensic Science. The award is based on merit.

Criteria for selection include:

1) Current graduate student in the VCU graduate Forensic Science Program

2) Academic Achievement
   
   At least one semester required prior to graduation
   
   Recent university and community service and/or leadership

Students interested in applying should complete the attached application and submit it and required materials by Friday, February 1, 2008 to Angelica Bega Hart at the Forensic Science Program Office, 1000 W. Franklin Street, 1st floor. The award (approximately $500) will be made for the following summer or fall semester. Additional information is available from the Forensic Science Program Office at fos@vcu.edu or (804) 828-8420.
Virginia Commonwealth University

Emily R. Murphy Graduate Scholarship in Forensic Science

Criteria for Nomination:

- Current graduate student in the VCU Forensic Science Program
- Academic Achievement
- At least one semester required prior to graduation
- Recent university and community service and/or leadership

Submit This Nomination Form along with:

- A double-spaced essay (500 word maximum) discussing your interest in Forensic Science, academic achievement, service and leadership.
- Two letters of recommendation from VCU or DFS faculty or mentors (submitted by faculty or student).

Completed Nomination Package Deadline:

- February 1, 2008

Submit Nomination Package to:

Angelica Bega Hart
Virginia Commonwealth University
1000 W. Franklin Street, 1st floor
Box 843079
Richmond, VA 23284-3079
Phone: (804) 828-8420 FAX: (804) 828-4983

Nominee Information

Type or neatly print the requested information.

Name_________________________ Signature_________________________

Address________________________

Number/Street Name________________________

City/State/ZIP________________________

Phone # (Day)________________________ (Evening)________________________

ESSAY INFORMATION

Introduce yourself. Discuss your primary research and career interests in Forensic Science. Include information about the following: your academic abilities and achievements; recent community or university service and/or leadership; plans upon receiving your degree.

1/15/07
Virginia Commonwealth University recognizes that honesty, truth, and integrity are values central to its mission as an institution of higher education. Therefore, it must act to maintain these values, even to the point of separating from the University those who violate them. The VCU HONOR SYSTEM describes the responsibilities of students, faculty, and administration in upholding academic integrity, while at the same time respecting the rights of individuals to the due process offered by administrative hearings and appeals. Any persons enrolled in any course or program offered by VCU, and all persons supervising the learning of any student are responsible for acting in accordance with the provisions of this policy. A complete text is included in the VCU Resource Guide.

An integral part of the VCU HONOR SYSTEM is the Honor Pledge:

"On my honor, I have neither given nor received aid on this assignment."

At the option of the instructor, work assigned for classes, internships, and all other types of instruction offered at the University may be accomplished in either of two ways: (1) as "Pledged" work, for which the student will sign a pledge statement indicating that the work was completed independently, without giving or receiving assistance from another; or (2) as "Unpledged" work, which may be completed in collaboration with others as directed by the instructor and for which no pledge statement is required. All work is considered to be pledged unless the instructor specifies others.

The VCU HONOR SYSTEM gives definitions and illustrative examples of six acts which are violations of the policy: Cheating, Plagiarism, Facilitating Academic Dishonesty, Abuse of Academic Materials, Stealing, and Lying. There are also six penalties which may be imposed upon students who are found guilty of violations: Honor Probation, Assignment of Grades, Suspension, Expulsion, Revocation, and Other Relevant Sanctions.
American Academy of Forensic Sciences
AAFS
http://www.aafs.org

AAFS is a “professional society dedicated to the application of science to the law. Membership includes physicians, criminalists, toxicologists, attorneys, dentists, physical anthropologists, document examiners, engineering scientists, psychiatrists, educators, and others who practice and perform research in the many diverse fields relating to forensic science” (AAFS web page). This site provides Employment Opportunities, including position titles, qualifications, duties, salary ranges, and contact information. A Career Brochure offers detailed views of the forensic scientist’s role in the areas of Criminalities, Engineering Sciences, Jurisprudence, Odontology, Pathology, Biology, Physical Anthropology, Behavioral Science, Questioned Documents, and Toxicology. Students are encouraged to join this association and attend the annual meeting.

Mid-Atlantic Association of Forensic Scientists
MAAFS
http://www.maaafs.org/

MAAFS objectives are to “encourage the exchange and dissemination of ideas and information within the fields of recognized forensic sciences through improving contacts between persons and laboratories engaged in the forensic sciences; to stimulate research and the development of new and/or improved techniques; and to promote high standards of performance and facilitate professional acknowledgment of persons working in recognized forensic science disciplines” (MAAFS web page). This organization has a newsletter, workshops and conferences. Students are encouraged to join this association and attend the annual meeting.
Professional Associations (cont.)

**American Society of Crime Laboratory Directors (ASCLD)**

ASCLD “is dedicated to providing excellence in forensic science analysis through leadership in the management of forensic science. Our web site contains considerable information about the ASCLD organization, forensic science, **job opportunities**, and links to other organizations involved in forensics” (ASCLD web site).

**Graduate Student Association**
[http://www.studentorg.vcu.edu/gsa/excomm.htm](http://www.studentorg.vcu.edu/gsa/excomm.htm)

The VCU Graduate Student Association sponsors a research symposium, faculty/student events and other opportunities for graduate students to network and enhance their graduate experience.

**VCU Forensic Science Student Club (FSSC)**
[http://www.studentorg.vcu.edu/fscc/](http://www.studentorg.vcu.edu/fscc/)

The Forensic Science Student Club provides opportunities for students to learn about the different areas in the discipline. Each semester workshops, seminars, and social events are offered. Graduate students are automatically included as members (free membership) and all are welcome to attend all functions. The executive board has a position for a graduate student representative; elections for this position are held each spring semester.

**Fellowship Opportunities**

**Virginia Institute for Forensic Science and Medicine Fellowship Program**
[http://www.vifsm.org/forensictraining/fellowships.html](http://www.vifsm.org/forensictraining/fellowships.html)

The Virginia Institute for Forensic Science and Medicine is affiliated with the Virginia Department of Forensic Science. Its mission is to “aide the training and education of forensic scientists, forensic pathologists, and other professionals interfacing with the criminal justice system” (see VIFSM web page). VIFSM offers fellowship programs (stipend) in forensic biology, latent prints, firearms and toolmarks, and controlled substances. Information, application requirements, and applications are available at the VIFSM web page.
VCU Resource Guide

The VCU Resource Guide lists services and policies at VCU. This is an important resource for all students and may be picked up at the Office of the Associate Dean of Student Affairs at 901 Floyd Avenue or access on-line at http://www.students.vcu.edu/rg/

Academic Technology Information

Email Accounts may be created online from any web-connected computer by going to http://www.ts.vcu.edu/faq/accounts/

Blackboard Accounts use the same login and password as email accounts and are automatic when the email account is created. Once a student has a VCU email account, he or she can access the Blackboard system.

Computer Labs are available in Cabell Library and in the basement of Sanger Hall.

University Career Center

University Student Commons, 907 Floyd Avenue, Room 143
828-1645
http://www.students.vcu.edu/careers/

The University Career Center offers career planning and job search assistance for students. Services offered include Career Connections, resume writing workshops, job search strategy workshops. Haley Sims, Assistant Director, University Career Center works with Forensic Science students and can be reached at 828-1645.
VCU Resources (cont.)

VCU ID

http://www.vcucard.com/

Your VCU Card can be obtained on the day of the School of Graduate Studies’ Student Orientation or during the first week of classes. Bring a photo ID and a copy of your fall schedule to the VCU Card office (see website for VCU Card Office hours and location).

VCU e-mail

http://www.ts.vcu.edu/faq/accounts/

Your VCU e-mail address is the university’s official form of communication. Students are reminded to read and respond to their email regularly.

Graduate School Classified

http://www.graduate.vcu.edu/community/board/classifieds.html

The Graduate School Classifieds is a resource for graduate students and members of the community to share information regarding apartments, roommates, and part-time and temporary jobs in and around the city of Richmond. To post a submission to the Graduate School Classifieds, contact the Graduate School with the details of your request.

VCU Alert

http://www.vcu.edu/alert/

Students are encouraged to bookmark this site and to sign up for the text message alerting system. In addition to vital information in the event of a campus emergency, the VCU alert site also provide inclement weather information and contact information for reporting electrical or mechanical failure, or a chemical or radiological threat. The department strongly encourages all students to sign up for the text message alert system and to report any suspicious activity immediately to the proper authorities.

Graduation Application

http://www.vcu.edu/graduate/pdfs/edWebGuidelines.pdf

Students need to apply for graduation the beginning of the semester in which they intend to graduate (see university calendar for the deadline). Student should go to the pdf address listed above for guidelines and next steps.
VCU wants all of its students to remain safe on campus. You can help by being aware of your surroundings and reporting any suspicious activity immediately. The following information below is from the VCU Alert website, at http://www.vcu.edu/alert/. This site is a great resource for information about keeping safe and secure while on campus.

What **TO DO** in an emergency:

- Remain calm, use common sense and give assistance as needed.
- Call the VCU Police at 828-1234 or the Richmond Police by dialing 911.
- Evacuate buildings immediately upon request of authorities, upon hearing an alarm, or when remaining inside is dangerous or life threatening.
- Know the location of at least two emergency exits close to your working/living areas.

What **NOT TO DO** in an emergency:

- In order to keep lines open, do not use the telephone except to report the emergency situation.
- Do not use elevators.
- Do not jeopardize your life and the lives of others by attempting to save property.

**Emergency Text Messaging:**
In addition, the department urges all of its students to sign up for the emergency text messaging service by visiting [http://www.vcu.edu/alert/notify/](http://www.vcu.edu/alert/notify/).

In addition to being secure while around campus, students are reminded to strictly follow the laboratory safety procedures put in place for the safety of themselves and other at all times. Following is an abbreviated list of important considerations for working in the laboratory.
LABORATORY SAFETY RULES

Wear approved eye protection in the laboratory at all times. This means eye covering, which will protect both against impact, splashes, and alternate light sources. The wearing of contact lenses, even under safety glasses, is strongly discouraged.

Perform no unauthorized or unsupervised experiments.

Do not remove any chemicals, equipment, or supplies from the laboratory.

Locate the fire extinguisher and safety shower before the first lab so that it can be quickly accessed if needed.

Eating and/or drinking in the laboratory are strictly prohibited. No smoking is permitted in any campus building. Do not taste anything or put any laboratory item to your mouth. Do not chew pens/pencils used in the laboratory. Any unknown chemicals should not be smelled or touched.

Note the odor of fumes but avoid breathing fumes of any kind.

Do not use mouth suction in filling pipettes with chemical reagents. Use a suction bulb.

Protective gear such as safety glasses, latex/nitrile gloves and lab coats must be worn at all times while in the lab, unless the instructor specifies otherwise. Latex and nitrile gloves will be provided by the instructors; however, it is the student’s responsibility to provide their own lab coat and safety goggles.

Confine long hair and loose clothing when in the laboratory. Closed-toed shoes must be worn (open-toed sandals are not permitted).

Never work in the laboratory alone. Students are not allowed to work in the laboratory without an instructor or TA present.

Use safety shields or screens whenever there is potential danger from an explosion.

Wash your hands immediately upon removing gloves, upon completion of lab, and/or should the hands become contaminated. After washing hands, clean the water taps. Never touch another part of your body with your hands before washing.

Chemical waste must be disposed of properly in accordance with university waste disposal procedures.
Lab Safety Considerations, cont.

All biological materials (blood, serum, urine) and contaminated paper and plastic products (Kimwipes, gloves, cotton balls, micropipette tips) must be disposed of in the biohazard waste container. Sharp objects (slides, pipet tips, disposable pipets, tubes, lancets) must be disposed of in the hard-sided red sharps container. Dispose of uncontaminated waste in a regular trash receptacle.

Contaminated items should be placed in appropriate waste containers.

Some courses or specific laboratory exercises may be held at the Virginia Department of Forensic Science, Central lab, in downtown Richmond. Due to the nature of the evidence rules and chain-of-custody procedures, there will be additional safety rules when lab exercises are held at the VADFS site. When VCU students are working within VADFS lab space, they are expected to follow all additional VADFS safety policies and procedures which will be provided by the Instructor. Any students found in violation of VADFS policies will not be allowed to participate in future labs taught at the VADFS facility.
Important VCU and DFS Phone Numbers

VCU Department of Forensic Science 828-8420
fos@vcu.edu

Forensic Science, Chair, Bill Eggleston 827-8596
weggies@vcu.edu

Pete Marone, Director, VA-DFS 786-4707
pete.marone@dfs.virginia.gov

Tracey Dawson Cruz, Graduate Director 828-0642
tcdawson@vcu.edu

Other Important Numbers:

Bookstore 828-1678
Campus Police (Emergency) 828-1234
           (Non-Emergency) 828-1196
College of Humanities and Sciences 828-1674
Dining Services 828-1148
Escort Service 828-WALK
Financial Aid 828-6669
Graduate School 828-6916
Housing and Residence Education 828-7666
Inclement Weather Hotline 828-OPEN
Information, Academic and MCV Campuses 828-0100
Library, Academic Campus 828-1110
Off-Campus Housing 828-1981
Parking and Transportation 828-PARK
Records and Registration 828-1349
Services for Students with Disabilities 828-2253
Siegel Center 827-1000
Student Accounting 828-2228
Student Activities Center 828-3648
University Career Center, Haley Sims 828-1645
University Counseling Services 828-6200
University Student Commons & Activities 828-1981
University Student Health Services, Academic Campus 828-8828
           MCV Campus 828-9220
VCU Card Office 827-CARD
VCU is an equal opportunity/affirmative action university providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran’s status, political affiliation or disability.