Professor:  
Brian J. Gestring, M.S.  
Assistant Professor – Chemistry & Physical Sciences/ Forensic Science  
Office – Miller 10  (Hours: Monday 3-4 pm, & Tuesday 9:30-11:30 am)  
(610)606-4666 ext 4488  
brian.gestring@cedarcrest.edu

Course Overview:  
Conducting research is an important part of furthering the field of Forensic Science.  
The research component of the graduate program will familiarize students with the  
process in the context of their research.  This seminar course will expose students to  
some of the forensic science research that is currently being conducted at other  
institutions.

Course Objectives:  
This graduate seminar course will:

• Introduce students to forensic science research being conducted at other  
institutions.
• Allow an in depth discussion of topics for further research.
• Provide an opportunity to evaluate other researcher's methods.
• Offer a preview of research that has not been presented or published.

Learning Outcomes:  
Student that complete Graduate Seminar I will:

• Develop a broader knowledge of current forensic science research.
• Cultivate their interpretive skills as they provide commentary on the results  
presented.
• Learn to assess the full implications of the study being conducted.
• Refine their ability to define further studies.

Required Readings:  
No text book will be used for this course.  Relevant articles will be distributed in class  
and made available through e-College.

Times and Locations:  
This class will meet on Tuesday from 4:00 to 6:00 pm in Science room 139.
### Course Assessment:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>10 %</td>
<td>Students are expected to attend all scheduled meetings and to arrive at the designated time.</td>
</tr>
<tr>
<td>Participation</td>
<td>10 %</td>
<td>Students are expected to prepare for class and actively involve themselves in class discussions.</td>
</tr>
<tr>
<td>Research Overview</td>
<td>10 %</td>
<td>At the beginning of the semester, students will be expected to give a ten minute overview of the current status of their project. This presentation should include a timeline for completion of the different thesis components.</td>
</tr>
<tr>
<td>Article Review</td>
<td>20 %</td>
<td>Students will select an article relevant to their research and present it to the class.</td>
</tr>
<tr>
<td>Thesis Timeline</td>
<td>15 %</td>
<td>Students will establish a timeline with their mentor early in the semester. A written project timeline must be prepared by the student and signed by both the student &amp; the primary mentor. This timeline must be turned in by September 16th.</td>
</tr>
<tr>
<td>Adherence to Thesis Timelines</td>
<td>15 %</td>
<td>This component will evaluate the student’s time management skills.</td>
</tr>
<tr>
<td>Presentation Write-ups</td>
<td>20 %</td>
<td>After each research presentation, students must submit a written summary of the presentation.</td>
</tr>
</tbody>
</table>

### Grade Assignments:

Final Grades will be assigned as follows:

A     100-93  
A-    92-90  
B+    89-87  
B     86-83  
B-    82-80  
C+    79-77  
C     76-73  
C-    72-70  
D+    69-67  
D     66-60  
F     59-0  

2
All course notifications will occur through your Cedar Crest College e-mail account. Please check this account regularly.

This course will also be supported by an online classroom. You should have received an e-mail prior to the start of the semester detailing how to access and utilize the resources that will be made available to you here. If you have not, please notify your professor. This virtual classroom can be accessed through www.cedarcrestonline.net.

Academic integrity and ethics remain steadfast, withstanding technological change. Cedar Crest College academic standards therefore apply to all academic work, including, but not limited to, handwritten or computer-generated documents, video or audio recordings, and telecommunications.

As a student at Cedar Crest College, each student shall:
• Only submit work which is her own.
• Adhere to the rules of acknowledging outside sources, as defined by the instructor, never plagiarizing or misrepresenting intellectual property.
• Neither seek nor receive aid from another student, converse with one another when inappropriate, nor use materials not authorized by the instructor.
• Follow the instructions of the professor in any academic situation or environment, including taking of examinations, laboratory procedures, the preparation of papers, properly and respectfully using College facilities and resources, including library and computing resources to ensure that these resources may be effectively shared by all members of the College community.
• Abide by the Cedar Crest Computer Use Policy.

If a student perceives a violation of the Academic Standards, he/she will go to their instructor. If you are unable to resolve the problem with the instructor, you should go to the chair of the department. If you need further assistance after consultation with the instructor and the chair, you should see the Provost.

The Cedar Crest College Honor Philosophy states that students should uphold community standards for academic and social behavior in order to preserve a learning environment dedicated to personal and academic excellence. Upholding community standards is a matter of personal integrity and honor. Individuals who accept the honor or membership in the Cedar Crest College community of scholars pledge to accept responsibility for their actions in all academic and social situations and for the effect their actions may have on other members of the College community.

Violations of the Academic Honor Code will be dealt with according to the Cedar Crest College Forensic Science Program Procedures and Policy Manual.
## Tentative Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T 8/26</td>
<td>Introduction &amp; Course Overview</td>
</tr>
<tr>
<td>2</td>
<td>T 9/02</td>
<td>Research Overviews</td>
</tr>
<tr>
<td>3</td>
<td>T 9/09</td>
<td>Article Reviews</td>
</tr>
</tbody>
</table>
| 4    | T 9/16 | Nicholas D. K. Petraco, Ph.D.  
Assistant Professor - John Jay College of Criminal Justice  
"Addressing Daubert and Frye: Statistical Pattern Recognition of Trace Evidence. An overview of current research going on at John Jay College of Criminal Justice" |
| 5    | T 9/23 | Mandy C. McGehee  
Forensic Chemist – DEA Northeast Laboratory  
"Comparison of the Acetylation of Methamphetamine and 3,4 Methylenedioxyamphetamine in Combination with Aspirin and Analyzed via Gas Chromatograph-MassSpectrometer" |
| 6    | T 9/30 | Zhaohua Dai, Ph.D.  
Assistant Professor - Pace University  
"Separation of Ephedrine Isomers via GCMS, Chiral GC, LCMS & CE" |
| 7    | T 10/07 | Missy Smith, M.S.  
Criminalist II - OCME Forensic Biology  
"Environmental Factors and Uncontrolled Natural Environments on Hair Root Degradation" |
| 8    | T 10/14 | Fall Break – No Class |
| 9    | T 10/21 | Jeannine DeGrazia, B.S  
Forensic Science Program - John Jay College of Criminal Justice  
"Plant-Related Forensics: An Examination of a Native Plant Defense Protein" |
| 10   | T 10/28 | Rebecca Buct, B.S.  
Forensic Science Program - John Jay College of Criminal Justice  
Research on Bloodstain Pattern Analysis – Title to be provided |
| 11   | T 11/04 | Ying Ying Tang MD, Ph.D, FACMG  
Assistant Director - NYC OCME Molecular Genetics Lab  
"Targeted Mutational Analysis of the Human Cardiac Ryanodine Receptor in 42 Cases of SIDS or “Undetermined” Cause of Death” |
| 12   | T 11/11 | Pending Scheduling |
| 13   | T 11/18 | Andrea Placke, M.S.  
Forensic Chemist – DEA Northeast Laboratory  
“The Isolation, Identification, and Quantitation of Dimethyltryptamine (DMT) in Mimosa Hostilis” |
| 14   | T 11/25 | Pending Scheduling |
Speakers & Topics Pending Confirmation:

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jihad Grosvenor, B.S.</td>
<td>Statistical Discrimination of Photocopy Machines from their Trashmarks</td>
</tr>
<tr>
<td>Zoran Budmilija, MD, PhD</td>
<td>Forensic Biology Research - Topic to be provided</td>
</tr>
</tbody>
</table>