

GMS6359L Principles of Bloodstain Pattern Analysis Laboratory

Tentative Course Syllabus

Course Information

Instructor

Dr. Gabriele Suboch

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Office Hours

Contact instructor via email

Meeting Time/Location

TBD

Required and Recommended Materials

There are no required texts for this class. All required reading materials will be provided through the course interface.

Optional/Recommended Text

- Suboch, G (2016) *Real Word Crime Scene investigation*. Boca Raton, FL.: CRC Press. ISBN 13-978-1-4987-0744-2
- James, S.H., Kish, P.E., and Sutton, T.S. *Principles of bloodstain pattern analysis: theory and practice*. Boca Raton, FL.: CRC Press. ISBN 9780849320149
- Tom Bevel, Ross M. Gardner. *Bloodstain pattern analysis with an introduction to crime scene reconstruction*. (3rd Edition). Boca Raton, FL.: CRC Press. ISBN 9781420052688
- Wolson, T. (editor) (2024) *Handbook of Bloodstain Pattern Analysis*. Boca Raton, FL: CRC Press ISBN 978-0367742072

Course Description

This course offers a hands-on introduction to the fundamental concepts of bloodstain pattern analysis and interpretation. Students will explore the history of the discipline, the properties of blood, and the factors influencing stain distribution, shape, and size. Topics include the mechanisms that create patterns and stains, the effects of various surface textures, and techniques for determining the Area of Convergence and Area of Origin.

Course Objectives

Upon completion of this course students should be able to:

- Describe the development, history, and advancement of bloodstain pattern analysis.
- Describe the inherent limitations of bloodstain pattern interpretation.
- Recognize, document, collect, preserve, and examine bloodstain pattern evidence.
- Recognize and distinguish between spatter stains and non-spatter stains and sequencing events.
- Understand bloodstains on clothing, absorbent/non-absorbent substrates.
- Recognize and interpret the mechanism by which bloodstains were created.
- Recognize the variety of wounds and various weapons used to create wounds.
- Explain the mathematical relationship which apply to bloodstain patterns in determining Area of Convergence and Area of Origin.
- Prepare scientifically-based reports, peer-review and courtroom testimony.
- Understand cognitive bias, subjective v. objective

Weekly Course Schedule

Topics/Agenda

Day #	Agenda
1	<ul style="list-style-type: none">• 0800-0900 – Introduction, course overview• 0900-1000 – Lecture History of BPA• 1000-1130 – Lecture: What is blood and its properties• 1130-1230_ Lecture: Why does blood spatter: Surface tension Adhesion/Cohesion• 1230-1300 – Lunch• 1300-1330 – Lecture: Passive bloodstain patterns• 1330-1430 – practical: create and identify blood spatter on different surfaces

	<ul style="list-style-type: none"> • 1430-1530 – Practical: create and identify blood stains on angled surfaces • 1530-1730 – Practical: Blood in motion/drip trails
2	<ul style="list-style-type: none"> • 0800-1030 – Lecture: Bloodstain pattern identification (impact, projected) • 1030-1230 – Lecture: Blood detection and presumptive blood tests • 1230-1300 - Lunch • 1300-1500 – Practical Blood detection Luminol/BlueStar® application and presumptive blood test • 1500-1530 – Practical: detection of blood on clothing with Alternate Light Source • 1530-1630 – Practical: create and identify transfer blood stains using different weapons • 1630-1730 Discussions/questions case study review
3	<ul style="list-style-type: none"> • 0800-0900 – Lecture: Documenting a bloodstain pattern with photos and sketch • 0900-1000 – Lecture: Report writing including cognitive bias discussion • 10:00-10:30 – Lecture and practical: Property receipt and chain of custody • 1030-1230 – Practical: photograph a spatter pattern, draw a sketch mark and measure the bloodstains. • 1230-1300 – Lunch • 1300-1430 – Lecture: Angel of Impact • 1430-1730 – Practical: Demonstration of AOC/AOI
4	<ul style="list-style-type: none"> • 0800-0930 – Lecture: Area of origin determination stringing method and tangent method • 0930-1230 – Practical: AOO using the stringing method (to be used for the mock court) • 1230-1300 – Lunch • 1300-1500 – Practical: AOO tangent method (to be used for the mock court presentation) • 1500-1730 – Packaging and preservation of blood evidence

5	<ul style="list-style-type: none"> • 0800-0930 –Lecture: Trial procedures • 0930-1100 –Lecture: Evidence standards Frye vs. Daubert • 1100-1230 – Lecture: Expert witness court testimony • 1230-1300 – Lunch • 1300-17:30 – Practical: Mock court presentation: students are role playing as BPA expert witness, prosecutor, defense attorney and judge.
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Grading

Course Assignments and Assessments

Progress through this course will be assessed with practical exercises and a final exam. Each day’s practical exercises will be worth 15% of the overall grade. The final exam – administered via Canvas – will be worth 25% of the overall grade.

Assignment Type	Portion of Final Grade
Practical Exercises (15% per day)	75%
Final exam	25%
Total	100%

Grading Scale

Letter grades will be assigned as indicated in the table below. As such, grades will not be rounded up to the next letter grade. Your final letter grade will be calculated in accordance with your exact percentage grade.

Letter Grade	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A	100% to 93%	4.0
A-	< 93% to 90%	3.67
B+	< 90% to 87%	3.33
B	< 87% to 83%	3.0
B-	< 83% to 80%	2.67
C+	< 80% to 77%	2.33
C	< 77% to 73%	2.0
C-	< 73% to 70%	1.67
D+	< 70% to 67%	1.33
D	< 67% to 63%	1.0
D-	< 63% to 60%	0.67
E	< 60% to 0%	0

Students should check their progress on course grades within the Canvas gradebook throughout the semester. Any unsubmitted or outstanding assignments at the end of the semester will be assigned a grade of 0.

General University of Florida policies associated with grades and academic regulations can be found at [UF Graduate School Regulations](#).

Course Policies

Assignment Deadlines, Late Work Policy, and Extensions

At the beginning of each semester, review the assignment deadlines posted within the Course calendar. Assignment deadlines will also be posted on the “to-do list” within the Canvas system. Please keep in mind that the University of Florida is located within the Eastern Time Zone and all deadlines are posted accordingly. You may adjust your settings within Canvas to accommodate for your local time zone.

Assignments submitted after the posted deadline will be subject to a 10% deduction per day that they are late. Thus, any work that is 10 days or more overdue will be assigned a grade of 0. We will allow a 12-hour grace period for late submission up to 2-times per course to account for unexpected issues such as time-zone differences, technical difficulties submitting assignments, other unexpected challenges. Consistent or habitual submission of work within this 12-hour grace period (that is, submitting more than 2 assignments within this timeframe) will be viewed as abuse of policy leniency and will be met with the full late policy deduction.

While we understand that our students have other work and personal commitments in addition to their coursework, we expect every effort to be made to meet posted course deadlines. If for some reason due to circumstances beyond your control you are unable to meet an assignment deadline, students should e-mail the instructor and explain the situation in advance to request an extension. Extensions must be requested ahead of a posted deadline with the exception of medical emergencies. If you have experienced a medical emergency and were unable to request an extension before the posted deadline, you must submit proper documentation along with your extension request. Extensions will not be granted for reasons associated with poor time management. No more than 2 extensions per student per course will be granted.

Incomplete Grades

Under special circumstances, if a student is unable to finish a course before the end of the semester, we may be able to assign an incomplete grade. An incomplete grade is a non-punitive grade assigned at the discretion of the course instructor. A student may qualify for an incomplete grade if 1/3 or more of the course assignments have been completed and if the student has remained in communication with the instructor(s) throughout the course to explain

ongoing challenges and circumstances. If an incomplete grade is assigned, outstanding assignments must be completed by the end of the next semester.

Academic Calendar and Critical Dates

If a student wishes to drop or withdraw from a course or requests an incomplete this must be done in accordance with the posted deadlines of the UF Graduate School. Students must inform their instructor and/or program director of their intention to drop or withdraw from a course to ensure the appropriate administrative steps are taken. In some cases, a portion of tuition may be refunded upon course withdrawal.

Critical dates relating to add/drop and course withdrawal can be found at [UF Graduate School Calendar](#).

Plagiarism, Academic Honesty, and Student Expectations

All course assignments and discussion posts must be written fully in your own words. Failure to do so will be considered plagiarism. This includes quoting from a book, website, or module content without directly crediting the source. Assignments may not be made up substantially of quoted material as that is not aligned with the purpose of course assignments. You may include quotes if they are beneficial to a point you are trying to make, but you must complete all assignments in your own words. Simply paraphrasing from your sources is not acceptable. The University of Florida uses the Turn-It-In plagiarism detection software. Any similarity score above 40% is considered unacceptable for submission. Please ensure you are checking your score after assignment submission and making any necessary changes in accordance with this threshold.

The University of Florida also prohibits self-plagiarism which is defined as “the reuse of the student’s own submitted work, or the simultaneous submission of the student’s own work, without the full and clear acknowledgment and permission of the faculty to whom it is submitted.” In some cases, assignments across program courses may be similar enough that you wish to reuse substantial portions of a previous assignment, but you must request permission from the course instructor to reuse previous or simultaneous work before assignment submission.

All students within this program are expected to read, understand, and adhere to all policies listed within the UF Student Code of Conduct and the UF Maples Center for Forensic Medicine Code of Conduct and Professionalism. All participants in UF Maples Center for Forensic Medicine Programs must read, understand, and agree to adhere to the Code of Conduct and Professionalism before participating in the programs. Failure to do so will prohibit participation in these programs. The full UF Maples Center Code of Conduct and Professionalism is included within each program course.

More information on UF policies associated with plagiarism and academic honesty as well as the full UF Student Code of Conduct can be found at [Student Honor Code](#).

Performance Expectations and Citing Your Sources

Students are expected to produce quality work of a standard comparable to any graduate level course. Discussion posts and assignments must be legible, constructive, and appropriate which includes refraining from the use of foul or offensive language. Students are required to think for themselves and will be expected to complete assignments that require the application of logic and reasoning skills when the answer may not be found in a book or the course module notes. Students are also expected to use academic sources within written assignments. Academic sources include textbooks, journal articles, research papers, and only websites of academic repute such as those ending in .gov or .edu. All written assignments must include a works cited wherein you reference the sources used for completing the assignment. A minimum of one academic source must be used within each assignment, and a minimum of three academic sources must be used for essay-style exams. You may use additional non-academic sources such as newspaper or media websites within your assignments, but these may only be supplemental to academic sources; they cannot substitute academic sources. If you are unsure whether or not a source in question is considered academic, email your course instructor for clarification.

Attendance Policy and Participation Expectations

This course is part of the distance education program at the University of Florida. Rather than traditional lectures, course content is presented in written module format with supplemental reading as indicated within each module. It is imperative students regularly interact with the course and their peers on the discussion boards. We recommend students check Canvas at least once per day for posted announcements, emails, or other course updates.

Course Communication and Instructor Contact

Do not hesitate to contact your instructor at any time if you need guidance, if you have assignment questions, or if you have questions relating to the course content. Course-specific questions should be sent via the Canvas-integrated email system to ensure that your instructor can associate your question with your course and section number. Other questions or general correspondence should be sent directly to the instructor's UF email address. We strive to answer all course-related questions within 24 business hours.

Any comments or questions about an assignment, including questions about grades, should be sent via the Canvas email system. Within module assignments and written portions of exams, if you lose points in a way that is not explained by the rubric (if applicable), a comment with feedback explaining the post loss will be provided. Please do not reply to these comments as instructors are not notified of comments made on the assignment submission page. Instead, email the instructor using the Canvas email system. If your course has a TA, please always email both the course instructor *and* the TA when asking course content questions to ensure all parties stay on the same page.

Grade Changes

Grades will be changed only when a grading error has been made. If you think an error has been made, you should email the instructor as soon as possible. Your entire assignment will then be re-graded.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Students can complete evaluations in three ways: (1) The email they receive from GatorEvals, (2) Their Canvas course menu under GatorEvals, or (3) The central portal located [here](#). Guidance on how to provide constructive feedback is available at [the gator evals site](#). Students will be notified when the evaluation period opens. Summaries of course evaluation results are also available at [the gator evals site](#).

University Policies & Resources

[Visit the UF Academic & Resources website](#) for specific information about attendance, academic accommodations, course evaluations, and the UF honesty policy, as well as academic and health and wellness resources.