

I. Course Information

Course: CHEM 1200 - Survey of Forensic Science/Lab

Semester Credit Hours: 4.0

Course CRN and Section: 22291 - E01, 23018 - E02

Semester and Year: Fall 2021

Course Start and End Dates: 08/23/2021 - 12/12/2021

Building and Room: Panza Science Annex - 2

II. Instructor Information

Professor: Dr. George Turner Duncan

Email: gduncan@nova.edu

Phone: 954-262-3603

Office Hours:

Thursdays from 3:00 to 4:00 pm in by appointments (zoom) please send me an email

This course is administered by the Department of Chemistry and Physics. If the instructor cannot be reached, please contact the Department of Chemistry and Physics at 954-262-7930.

III. Class Schedule and Location

CRN	Day	Date	Time	Location	Building/Room
22291	M	08/23/2021 - 08/30/2021	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Panza Science Annex-2
22291	T	08/24/2021 - 12/07/2021	6:00 PM - 8:29 PM	Ft Lauderdale/Davie Campus	Carl DeSantis Building-3045
22291	M	09/13/2021 - 10/04/2021	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Panza Science Annex-2
22291	M	10/18/2021 - 11/22/2021	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Panza Science Annex-2
22291	M	11/29/2021 - 11/29/2021	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Panza Science Annex-2
23018	M	08/23/2021 - 08/30/2021	9:00 AM - 11:45 AM	Ft Lauderdale/Davie Campus	Panza Science Annex-2
23018	T	08/24/2021 - 12/07/2021	6:00 PM - 8:29 PM	Ft Lauderdale/Davie Campus	Carl DeSantis Building-3045
23018	M	09/13/2021 - 10/04/2021	9:00 AM - 11:45 AM	Ft Lauderdale/Davie Campus	Panza Science Annex-2

23018	M	10/18/2021 - 11/22/2021	9:00 AM - 11:45 AM	Ft Lauderdale/Davie Campus	Panza Science Annex-2
23018	M	11/29/2021 - 11/29/2021	9:00 AM - 11:45 AM	Ft Lauderdale/Davie Campus	Panza Science Annex-2

Please note: All courses scheduled on campus as lecture or lecture/lab must be attended in person.

For residential courses, students may not change seats throughout the semester for all regular class meetings. Please be aware that the seat you take on the first day of class will be your permanent seat.

IV. Course Description

This course is structured to introduce the basic disciplines of forensic science such as fingerprints, drug analysis, arson investigations and DNA analysis. This course is appropriate for non-science major students and students who are looking to pursue the field of forensic science. Frequency: Odd Year Fall.

V. Course Objectives / Learning Outcomes

- 1) Recognize the different types of evidence samples encountered at crime scenes.
- 2) Gain basic techniques used to analyze the different types of samples.
- 3) Develop scientific investigative skills including proper documentation and reporting of observations.

VI. Materials and Resources

Book Url: [NSU Book Store](#)

Section Required Texts and Material:

Title	ISBN	Edition	Required?
Criminalistics: An Introduction to Forensic Science	9780134477596	12TH 18	REQUIRED

VII. Course Schedule and Topic Outline

Course Schedule:

Tentative lecture outline

COURSE OUTLINE – 16 Weeks		
WEEK	TOPIC	ASSIGNMENT
Week 1 24-Aug	Chapter 1: Introduction Chapter 2: The Crime Scene	Read the questions at the end of the chapters
Week 2 31-Aug	Chapter 3: Physical Evidence	Read the questions at the end of the chapters
Week 3 7-Sep	Chapter 4: Crime Scene Reconstruction Chapter 5: Death Investigation	Read the questions at the end of the chapters
Week 4 14-Sep	Chapter 6: Fingerprints TEST 1	Read the questions at the end of the chapters
Week 5 21-Sep	Chapter 7: Forensic Biometrics Chapter 8: The Microscope	Read the questions at the end of the chapters
Week 6 28-Sep	Chapter 9: Firearms, Tool Marks and Other Impressions	Read the questions at the end of the chapters

COURSE OUTLINE – 16 Weeks		
WEEK	TOPIC	ASSIGNMENT
Week 7 5-Oct	Chapter 10: Matter, Light, and Glass Examination TEST 2	Read the questions at the end of the chapters
Week 8 12-Oct	Chapter 11: Hairs and Fibers Chapter 12: Drugs	Read the questions at the end of the chapters
Week 9 19-Oct	Chapter 12: Drugs CONTI Chapter 13: Forensic Toxicology	Read the questions at the end of the chapters
Week 10 26-Oct	Chapter 14: Metals, Paint, and Soil Chapter 15: Serology	Read the questions at the end of the chapters
Week 11 2-Nov	Chapter 16: DNA: The Indispensable Forensic Science Tool INTRODUCTION TEST 3	Read the questions at the end of the chapters
Week 12 9-Nov	Chapter 17: Forensic Aspect of Fire and Explosion Investigation Chapter 18: Document Examination	Read the questions at the end of the chapters
Week 13 16-Nov	Chapter 19: Computer Forensics Chapter 20: Mobile Device Forensics	Read the questions at the end of the chapters
Week 14 23-Nov	DNA Analysis STRs and SNPs DNA Analysis Familial Searches and Genealogy	Just capture the highlights as this is new material
Week 15 23-Nov	DNA Analysis Rapid Analysis and CODIS ROUNDUP OF ALL THE TOPICS TEST 4	Just capture the highlights as this is new material
Week 16	FINAL EXAM	

Lab reports will be a filled-up form attached to each laboratory instructions and it will be due the following laboratory meet up. Please remember to upload your report on canvas for grades.

Week of	Lab Experiment
23-Aug	Introduction meeting.
30-Aug	Safety quizzes due (canvas) and instructions for the fall laboratory
6-Sep	No Lab - Holiday
13-Sep	Hair Analysis
20-Sep	Shoe -Tire Impressions/Prints
27-Sep	Scene sketch
4-Oct	Ink Analysis
11-Oct	No Lab - Midterm Week
18-Oct	Blood ID and typing
25-Oct	Blood spatter
1-Nov	Fingerprints

8-Nov	No lab
15-Nov	Lab Practical – Murder mystery starts
22-Nov	No Lab - Thanksgiving
29-Nov	Lab Practical - Murder mystery final report

VIII. Assessments

The classroom performance will be based in class quizzes, 4 tests and a comprehensive final. The **quizzes will account for 20%** of the course grade, the **4 tests 40%**, **class participation 10%** and the **final 30%**.

The final exam is comprehensive and will be conducted during finals week.

The exams will be a combination of multiple choice and free response questions.

Lab grades will be based on weekly written lab reports, in class quizzes and a lab practical.

Overall 75% of the grade is from the lecture score and 25% is from the Lab score. The final grade is based on the overall score using the criterion below.

<i>Final Grade Criteria</i>	
90% and above	A
80% to 89.9%	B
70% to 79.9%	C
60% to 69.9%	D
Below 60%	F

IX. Grading Criteria

Final Grade:

<i>Final Grade Criteria</i>	
90% and above	A
80% to 89.9%	B
70% to 79.9%	C
60% to 69.9%	D
Below 60%	F

X. University Policies

Last Day to Withdraw: To withdraw from a course, it is not sufficient simply to stop attending class or to inform the instructor of your intention to withdraw. In accordance with college policy, contact your academic advisor to begin the withdrawal process. **The last day to withdraw from this course** may be viewed at www.fcas.nova.edu/calendars.

Students must visit www.fcas.nova.edu/about/policies.cfm to access additional required college-wide policies. It is your responsibility to access and carefully read these policies to ensure you are fully informed. As a student in this class, you are obligated to follow these college-wide policies in addition to the policies established by your instructor.

The following policies are described on this website:

- Academic Misconduct
- Writing Across the Curriculum
- Last Day to Withdraw
- Email Policy
- Student Course Evaluations
- Student Responsibility to Register
- Student Responsibility for Course Prerequisites

Students should visit <http://www.nova.edu/academic-affairs/nsu-syllabus-policy.html> to access additional required college-wide policies. It is your responsibility to access and carefully read these policies to ensure you are fully informed. As a student in this class, you are obligated to follow these college-wide policies in addition to the policies established by your instructor.

The following policies are described on this website:

- Academic misconduct
- Last day to withdraw
- Email policy
- Student course evaluations
- Student responsibility to register
- Student responsibility for course prerequisites

Academic Resources

Nova Southeastern University offers a variety of resources that may aid in student success. Among these resources are:

Accommodations for students with documented disabilities: For more information about ADA policy, services, and procedures, students may call the Office of Student Disability Services at 954-262-7189 or visit <http://www.nova.edu/disabilityservices>.

Tutoring and testing center:

Students are encouraged to use the free, individualized tutoring services offered by the Tutoring and Testing Center (TTC) early and often throughout the academic year. TTC provides supplemental learning assistance, as well as an array of testing services, in a supportive and professional environment that enhances the ability of all students to meet educational goals, achieve academic excellence, and enhance personal growth. Subject-based tutoring and academic coaching sessions are individualized, 45-minute sessions that encourage developing strong creative thinking and reasoning skills. See here for the latest listing of NSU courses tutored: <http://www.nova.edu/tutoring-testing/tutoring-services/general-information.html>. TTC also offers Supplemental Instruction in historically difficult courses. SI sessions are facilitated by SI Leaders who have been endorsed by faculty for their leadership ability and content mastery. For further information please call (954) 262-8350 or visit our website at <http://www.nova.edu/tutoring-testing/>.

Health and Safety Resources for NSU Students

Covid Exposure or Infection

If a student experiences COVID exposure or infection, they do not report to the Office of Disability Services. Instead, the student reports via email: 1. to the COVID-19 office (covidcase@nova.edu), 2. to our college COVID coordinator, Vanessa Mezquia at mezquia@nova.edu, and 3. to the course instructor.

Formerly known as Henderson Student Counseling, the **NSU Center for Student Counseling and Well-Being** offers a wide array of services and programs to support various aspects of students' well-being including: same day triage appointments, individual, couple and family therapy, support & personal growth groups, psychoeducational programming, resilience programs, and educational outreach. Additionally, to make service more accessible to students, NSU's Center for Student Counseling and Well-Being is now centrally located in the Student Affairs Building, 3rd floor. To make an appointment or to learn more go to nova.edu/studentcounseling, call (954) 262-7050 or (954) 424-6911.

The **Office of Suicide and Violence Prevention** is devoted to creating a safety net at NSU, helping to prevent suicide and violence. For more information, visit nova.edu/suicideprevention. If you are struggling,

call a Suicide Prevention hotline for 24/7 assistance: 1-800-SUICIDE (784-2433) or 1-800-273-TALK (8255).

You can Contact the **Office of Public Safety** (NOVALERT - Hotline) 24 hours/7 days a week for emergency or non-emergency situations at (954) 262-8999. For more information about services and safety tips, visit nova.edu/publicsafety.

The NSU “Write from the Start” Writing and Communication Center

The NSU “Write from the Start” Writing and Communication Center is an innovative workspace where students, consultants, and faculty come together, in person and online, to talk about writing and communication. Staffed by trained professional and peer consultants, the WCC offers individualized assistance to all NSU students. Students can work with consultants on all types of academic writing and communication projects at any stage of the process. For more information or to make an appointment, visit the WCC website, nova.edu/wcc, or call 954-262-4644.

Classroom Recording Policy

Class content throughout this course may be recorded in accordance with the NSU Class Recording Policy. If class content is recorded, these recordings will be made available to students registered for this course as a supplement to the classroom experience. Recordings will be made available to all students who were registered to attend the live offering of the class, regardless of a students’ section or discipline, or whether the student is participating in the course online. If recordings are intended to be accessible to students or third parties who were not registered for the live offering of the class, students’ personally identifiable information will be removed or redacted from the recording, unless (1) their written consent to such disclosure was previously provided, or (2) the disclosure is permissible in accordance with the Family Educational Rights and Privacy Act (“FERPA”).

Students are prohibited from recording audio or video, or taking photographs in classrooms (including online classes) without prior permission from the instructor or pursuant to an approved disability accommodation, and from reproducing, sharing, or disseminating classroom recordings to individuals outside of this course. Students found engaging in such conduct will be in breach of the Student Code of Conduct and subject to disciplinary action.