LANE COMMUNITY COLLEGE **SCIENCE DEPARTMENT**
Spring Term 2018

COURSE NUMBER: CH 114 Introduction to Forensic Chemistry CRN 40841

INSTRUCTOR: Brooke Taylor

CLASS HOURS: M 12:00 – 2:50 in 16/154 and W 12:00 to 2:50 16/147 for lab

OFFICE HOURS: MF 10:00-11:00 in SRC, W 10:00 to 11:00, T 1:00 to 2:00, R 11:00 to noon. MF office hours are in the Science Resource Center, all other office hours are in 16/253.

COURSE CREDIT: 4 credits **OFFICE LOCATION: 16/253**

E-MAIL ADDRESS: taylorb@lanecc.edu **TELEPHONE: (541) 463-3219**

WEBSITE: http://classes.lanecc.edu/

REQUIRED TEXTS & MATERIALS: No required text. A scientific calculator and CH 114 Lab Packet available from the bookstore are required. All required course readings links are or will be posted on Moodle. Main sources include National Institute of Justice, Oregon State Police, and National Forensic Science Technology Center.

Course Description: Introduction to Forensic Chemistry is designed to provide non-science majors an introduction to chemistry in a forensic context. Topics may include measurement, density, soil analysis, chromatography, organic and inorganic analysis, serology, DNA, and chemistry of fire. This course focuses primarily of the chemistry aspect of gathering scientific information in the context of forensics but will also demonstrate the interrelationships of chemistry, physics and biological sciences. Class time, articles and online resources will provide extensive background information while the laboratory component offers hands-on activities. This course is intended to satisfy the general education lab-science AAOT requirement.

Class Objectives: The primary objectives of this course are to introduce you to the basic chemical concepts using forensic chemistry examples and to apply those concepts to solve problems. Secondary objectives include building your scientific literacy and positive attitude towards science. Other objectives include increasing your knowledge of scientific inquiry as it applies to forensic chemistry and providing you with a general introduction to methods of scientific thought including critical analysis of data. While the information from the course can be used in other chemistry courses, it is not primarily intended to be preparatory in nature.

Please Note: This course would probably be rated PG-13 by MPAA. Several topics discussed during the term are graphic in nature. Course discussions and guest speakers may involve evidence collected from violent crime scenes and/or the identification of drugs or other illegal substances. Please discuss your concerns about such topics with the instructor. Revisions may be made in the schedule as well as the labs and activities planned with prior notification to students by the instructor.

Student Responsibilities: You are responsible for attending each class and lab session, completing all readings in preparation for class discussions, as well completing and submitting assignments on time. You are responsible for regularly checking Moodle for announcements as well as your Lane student email.

No required text: This course will use a variety of open, online sources for background information for relevant course topics. Students are encouraged to share resources with the instructor but also to be critical of internet sources. Just because we read it on the internet doesn't make it true.

Keys to Student Success in CH 114:

1. Attend each class and laboratory session and come to each meeting prepared. Class time will be spent discussing readings and analyzing evidence both independently and in groups. You will also have the opportunity to ask questions during class. If you are unable to attend you are still responsible for the material discussed in class or developed in lab on the day of your absence. Be sure to check Moodle for updates.
2. Ask questions about material unclear to you. You may ask questions in class, by email, over the phone, in the Science Resource Center, or in office hours. I am here to help you learn. Please don't hesitate to ask questions. The course covers a great deal of very interesting material but moves at a fast pace. Ask questions when they come up, please don't wait until the day before an assignment is due.
3. Be organized.
4. Complete all assignments. Turn in your assignments on time. If you cannot attend class the day an assignment is due, you are still responsible for turning in your work on time.
5. Monitor your progress; check the course site on Moodle frequently. Assignment scores will be posted throughout the term on the course website (http://classes.lanecc.edu/) along with class handouts, links to articles and web sites discussed in class. Also check your Lane email account.

Grading Policy: Your grade in CH 114 will be based on your completion of weekly labs worth 20% to 30% of the course grade, two in class exams each worth 20% to 30% of the course grade, and several small projects, activities writing assignments, and reading guides worth 15% to 25% of the course grade. Students will complete a grade distribution form twice during the term, once early in the term with a second revision after the first exam. Grades will be assigned using the following breakdown:

%	100-98	97-93	92-90	89-87	86-84	83-80	79-76	75-72	71-68	67-64	63-60	59-56	<56
Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

An incomplete (I) may be given if a student has completed 75% of the course work with a passing grade.

Grade Distribution Reports: Students will have two opportunities during the term to decide how they would like their grade distributed between the different components of the course. Labs will count 20% to 30%, each exam will count 20% to 30%, and assignments will count 15% to 25%. The total must equal 100%. After the first exam, students will be able to revise their grade distribution report but will not be able to submit past due work for credit. Please be sure to ask the instructor if you have questions.

Labs: Lab is an important and fun component of class. Lab is scheduled for each Wednesday and some Mondays as listed on the attached course calendar. You should plan on attending each lab session. Labs are due by the end of the lab period or at the beginning of the next class if the lab isn't complete by the end of the scheduled lab time. Twenty points will be dropped from the lab total. No make-up labs will be possible, no exceptions please. Students are still responsible for the material covered in labs they do not to attend. Students choosing to work in groups of two (at most) may turn in one group lab report. Each member of the group will receive the same grade. Students are expected to follow all safety instructions. Students acting in an unsafe manner will be asked to leave lab and will earn no credit for that activity. Food and drink are strictly prohibited in the labs. Lab will be worth from 20% to 30% of your course grade.

Exams: There will be two in class exams. Exam material will be based on class discussions, assignments, labs, article discussions, and reading guides. Each exam will contain a variety of question types including but not limited to multiple choice, short-answer, essay/show your work calculations. Each exam will be worth from 20% to 30% of your course grade.

Writing Assignments, Activities and Projects: Several writing assignments, article reviews, and in-class activities will be completed during the term. Other assignments will be developed during the term and due dates mutually agreed upon between the instructor and the class. These assignments will be worth from 15% to 25% of your course grade.

Extra Credit: Students completing all labs may earn up to 20 points extra credit towards the lab portion of your grade up to the maximum number of lab points possible. Additionally, each exam will contain some extra points. No other extra credit options will be available. College grades are assigned for points earned in class, not for extra credit.

Make-up Policy: No make-up labs will be permitted. One lab will be dropped. Students are still responsible for the material covered in lab. Late assignments will lose 25% per class day. If you are unable to attend an exam because of an emergency situation, you must notify the instructor beforehand. You may notify me by phone, email, Moodle message, a note under my office door or through the division office. A make-up exam may be arranged at the discretion of the instructor. Please do everything you can to avoid having to reschedule exams.

Eating/Drinking Policy: Eating and drinking is never allowed in the lab (not even from water bottles). In classrooms covered reusable cups or resealable containers must be used for beverages.

Academic Integrity: Cheating in any of its forms will not be tolerated. The minimum penalty for a first offense will be zero for the assignment. Any subsequent act will result in a failing grade (F) for the course.

To request assistance or accommodations related to disability, contact the Center for Accessible Resources at (541) 463-5150 (voice), 711 (TTY), AccessibleResources@lanecc.edu (link sends e-mail) (email), or stop by Building 1, Room 218.

Please be aware that any accessible tables and chairs in this room should remain available for authorized students who find that standard classroom seating is not usable.

In Case EMERGENCY, call Public Safety, 541-463-5555
Courtesy phones are located on the second floor of the Science Building.

The SRC provides services to assist students in getting the most from their classes. You may study in groups, get assistance from tutors and instructors, check out textbooks and optional materials, take exams (with instructor permission), pick up course materials, use computers, etc all in the SRC. SRC hours for spring term are posted on the doors to the SRC. If you use the SRC this term please register for the non-credit, no tuition CRN 44588. It's free!

Please note: the attached schedule is subject to change if needed. Any changes to exam dates will be announced in class and every effort will be made to contact any student absent at time of announcement. Labs are due prior to leaving the lab or the start of the next class

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Dates of Interest: Registration dates were not available at the time of printing. Please check online.

April 8th by 11:59 PM	Deadline to drop classes and receive a full refund.
May ?? at 7:00 AM	Advance Registration begins for summer term based on LCC credits
May ?? at 7:00 AM	Advance Registration begins for fall term based on LCC credits
May 25th by 11:59 PM	Deadline to make schedule changes, change grade option, register or withdraw
June 2nd by 11:59 PM	Advance Registration Prior Term Payment Due (Pay spring term bill to stay enrolled in Summer Term classes

Week	Day	Topic	Packet Pages
1	M	Course Intro, CSI Effect, Physical Evidence, Scientific Method Lab Safety	3
	W	Measurement Lab	29
2	M	Evidence, Metric System, glass Lab: Refractive Index of Glass	lecture 11 and 15 lab 33
	W	Determination of Glass Density Lab	35
3	M	Organic Analysis Lab: Observing Chemical Reactions	39
	W	Identification of Drugs and Poisons Lab	49
4	M	Drug Analysis	
	W	Thin Layer Chromatography Lab	41
5	M	Inorganic Analysis Lab: Serial # Restoration	lecture 17 and 19 lab 53
	W	Spectroscopy Lab	45
6	M	Forensic Serology Exam #1, 2 hour time limit	21
	W	Visible Spectroscopy Lab	63
7	M	Forensic Serology (Blood) Lab: Blood Typing	lecture 21 lab 59
	W	Blood ID Lab	59
8	M	DNA Lab: Gel electrophoresis practice	lecture 25 lab 69
	W	DNA Lab	69
9	M	No class, Memorial Day.	
	W	DNA Lab	69
10	M	Arson	
	W	Identification of Unknowns by IR Lab	55
11	M	Exam #2, 12:00 to 1:50	

Please note: the lab schedule above does not match the order of the labs in the packet. Please follow the schedule above, not the order of the labs in the packet.

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