REQUEST FOR A NEW COURSE
University of Central Oklahoma

Course Subject (Prefix), Number, and Title:

Course Subject
FRSC

Recommended
6203

Course Title (maximum of 30 characters)
Adv Forensic Prog and Lab Mgt

*Remember when abbreviating names, this is how they will appear on student's transcripts.

Course Title: (full title of course if longer than 30 characters)
Advanced Forensic Program and Lab Management

CIP Code: 43.0406

For information regarding CIP codes contact your department chair or visit: http://www.uco.edu/academic-affairs/ir/program_inventory.asp

For graduate courses, please attach a syllabus for this course. (See syllabus requirement policy 2.2.)

Course description as it will appear in the appropriate catalog.
Course description only. Do not include prerequisites or enrollment restrictions, these should be added under questions 6-12.

(Please use standard American English including full sentences.)

Advanced Forensic Program and Laboratory Management is designed for potential new supervisors and experienced managers that have the responsibility to supervise a forensic unit or laboratory. Topics include training and certification of examiners, case and evidence management, emerging legal issues, and development of policies and procedures. The pros and cons of accreditation from organizations and compliance with standards will be covered. This course will also offer descriptions of what is required in the formation of a quality system in any laboratory. This will be achieved through key principles of a QA/QC program with reference to the ANSI-ASQ National Accreditation Board (ANAB), Quality Assurance Standards for Forensic DNA Testing Laboratories, and ISO guidelines, together with specific examples from different forensic science specializations.

Forensic Science Institute
Department submitting the proposal

Dwight Adams
Person to contact with questions

Dadams8@uco.edu
email address

6915
Ext. number

Approved by:

[Signature]
Department Chairperson

11/20/20
Date

[Signature]
College Curriculum Committee Chair

11-20-20
Date

(Please notify department chair when proposal is forwarded to dean.)

College Dean

(Date)
(Please notify the department chair when proposal is forwarded to AA.)

Academic Affairs Curriculum or Graduate Council

(Date)

Academic Affairs Form

July, 2019

Functional Review
undergraduate proposals only)
1. Does this course have an undergraduate / graduate counterpart?  
   _____ Yes  ____ No

2. Is this proposal part of a larger submission package including a program change?  
   ____ Yes  ____ No

3. Does this new course affect a teacher preparation program?  (All courses required for any teacher preparation program must have approval from the Council on Teacher Education (CTE) before approval from AACC or Graduate Council.)  
   _____ Yes  ____ No  If yes, send copy of proposal to the Education Curriculum Committee Chair, Dr. Darla Fent.

4. Has this course been previously taught as a common course (4910 seminar, 4960 institute, etc.)?  
   _____ Yes  ____ No  If yes, when was the most recent offering?

5. Does this course affect majors or minors outside the department?  
   _____ Yes  ____ No  If yes, provide name(s) of department chair(s) contacted, dates, and results of discussion.

6. Prerequisite courses:  
   Example 1: MATH 1213 and (MATH 2165 or MATH 2185) and CHEM 1213  
   Example 2: (ACCT 2113 and 2213) and (MGMT 3813 or ISOM 3812)  
   None

7. Co-requisite(s): Which of the above prerequisite courses, if any, may be taken in the same semester as the proposed new course?  
   None

8. Concurrent enrollment: Courses that must be taken the same semester. Example: lab courses.  
   None

9. Will this course have enrollment restrictions?  
   ____ Yes  ____ No  If No, go to question 13.

10. Specify which major(s) may or may not take this course.  
    Specifying a major, excludes all other majors from enrolling.
    
    Check one:  
    May _____  May not _____

    Major Code:  

11. Which of the following student classification(s) may enroll in this course?  
    Check all that apply:
    
    Graduate  
    (2) 19 + hours  
    Graduate  
    (1) 0-18 hours  
    Post Baccalaureate *  
    Senior  
    Junior  
    Sophomore  
    Freshman
    * Graduate level courses are not open to Post Baccalaureate students.

12. Check or list other restrictions for this course.  
    Admission to Graduate Programs  ____
    Admission to Nursing Program  ____
    Admission to Teacher Education  ____
    Other  DSc-Forensic Science  ____

Academic Affairs Form
July, 2019

Functional Review  
undergraduate proposals only)
13. **Course objectives:** Objectives should be observable, measurable and include scholarly or creative activities to meet the course level characteristics. Course objectives should also be in line with the course description. (Please refer to instructional objectives documents at: https://spaces.ucd.edu/display/aaccproposals/UCO+AACC-main+page#UCOAACC-mainpage-faq-helpful-hints.)

Upon successful completion of this course, a student should be able to:

- Describe the myriad of funding issues facing managers related to budgets and grants.
- Define the many issues related to facilities, evidence storage, and security.
- Identify key points in selection and training of personnel and the role of diversity, equity, and inclusion in the laboratory.
- Demonstrate critical thinking and writing skills on issues relevant to evaluating personnel performance.
- Understand the importance of workload distribution and prioritization.
- Understand emerging legal issues related to strength and admissibility of forensic evidence in court and legal challenges stemming from laboratory management and practices.
- Demonstrate a keen understanding of mental health issues related to personnel.
- Understand potential future challenges.
- Identify formal methods of quality assurance standards to maximize the reliability of scientific data.
- Evaluate and interpret the reliability and reproducibility of good laboratory practice.
- Determine the most appropriate method for maintaining detailed and accurate QA/QC records of work performed using a LIMS system.
- Analyze routine operational performance in various disciplines thorough reports and data assessment.
- Comprehend the limitations of various disciplines through proficiency testing data with regards to basic research and/or forensic applications.

**Course Detail Information:**

14. **Contact Hours (per week)**

   - 3 Lecture hours (in class)
   - Lab hours (also studios)
   - Other (outside activities)

15. **Repeatable course.**

   - 1 Number of times this course can be taken for credit.

16. **Schedule type: (select one only)**

   - Activity P.E. (A)
   - Lab only (B)
   - Lecture/Lab (C)
   - Lecture only (L)
   - Recitation/Lab (R)
17. List existing course(s) for which this course will be a prerequisite. Adding a "new course" as a prerequisite to an existing course will likely cause enrollment problems. (Please submit a prerequisite change form for each course for which this course will serve as a prerequisite.)

None

18. What resources, technology or equipment must be acquired to teach this course? List items, which must be purchased and estimate cost. (Be specific, e.g., technology software, equipment, computer lab; etc.)

The FSI currently possesses all necessary equipment and technology for this course.

19. The UCO library has the required library resources for the new course:

Yes [ ] No [x] If no, provide a list of materials needed and contact the library at libraryresearch@uco.edu for a cost estimate.

Additional funds are being requested for library resources to support this course:

Yes [ ] No [x] $ ______________ (amount requested)

20. Names of current faculty qualified to teach this course.

Dr. James Creecy, Dr. Tom Jourdan, Dr. Dwight Adams, Dr. Wayne Lord, Dr. Mark McCoy, Dr. John Mabry

21. Additional faculty ( adjunct or full-time) required and specific competencies required to teach this course:

Staffing for this new course will come from existing faculty that will be supplemented by additional faculty position(s) as described in the proposed program budget.

22. How will this course be staffed and equipped? Identify the additional costs associated with this new course. If no costs, explain why not.

Staffing for this new course will come from existing faculty that will be supplemented by additional faculty position(s). All resources, technology and equipment for this new course already exist within the Forensic Science Institute. No new purchases will be required.

23. Identify the source(s) of funds for any additional costs for the new course. I.e. internal reallocations, special fees from students, etc. If you plan to propose special fees be assessed for this course, be aware there is a separate approval process for special fees.

The proposed budget for the program does not require new funds for this course.

24. Projected enrollment for two academic years following approval of new course:

<table>
<thead>
<tr>
<th>Semester</th>
<th>2021</th>
<th>2022</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
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<tr>
<td>Summer</td>
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</table>

25. Using State Regents' definition of liberal arts and sciences (quoted below), characterize the course as follows:

Non-liberal arts and sciences [ ] Liberal arts and sciences [x]

"The liberal arts and sciences are defined as those traditional fields of study in the humanities; social and behavioral sciences; communications; natural and life sciences, mathematics; and the history, literature, and theory of fine arts"
26. 

Please provide a concise, yet comprehensive, statement that explains the reasons for requesting the new course. Include documentation or assessment information supporting the specific request (if possible). Indicate the expected source of student enrollment (majors, minors, programs etc.)

The purpose of the proposed course and program would be to train graduate students in a contemporary applied STEM program integrating multiple forensic science disciplines. The program will be designed to provide training and advanced research in complex systems, analytical and quantitative problem solving, multidisciplinary teamwork, and scientific writing/presentation along with technical management that crosses the boundaries of traditional forensic science disciplines while at the same time ensuring that graduates have a depth of understanding in the field. Furthermore, based upon a National Academy of Sciences report related to Forensic Science, the Forensic Science Education Programs Accreditation Commission (FEPAC) has expressed support for institutions of higher education to establish terminal degree programs in Forensic Science. Therefore, with a Forensic Science component, the proposed DSc-FS program would be unique in the state, and one of the few terminal degrees in the nation addressing the need for training a workforce for the expected growth in forensic science positions.

27. Which of the six transformative learning tenets does this course incorporate? (Check all that apply or only those that apply). This question was a directive from the Provost and is used for informational purposes.

<table>
<thead>
<tr>
<th>Tenet</th>
<th>X</th>
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</thead>
<tbody>
<tr>
<td>Discipline Knowledge</td>
<td></td>
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<tr>
<td>Leadership</td>
<td>X</td>
</tr>
<tr>
<td>Research, Scholarly and Creative Activities</td>
<td></td>
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<tr>
<td>Service Learning and Civic Engagement</td>
<td>X</td>
</tr>
<tr>
<td>Global and Cultural Competencies</td>
<td></td>
</tr>
<tr>
<td>Health and Wellness</td>
<td>X</td>
</tr>
</tbody>
</table>

28. Clearly explain how the characteristics of this course meet or exceed those outlined in Course Level Characteristics. (Copy and paste table from "Course Level Characteristics" document for the appropriate course level of proposed course. Document may be found on: https://spaces.uco.edu/display/aaccproposals/UCC-AACC-

main+page#UCOAACC-mainpage-faq-helpful-hints.

6000 LEVEL COURSES

<table>
<thead>
<tr>
<th>Course Level Characteristics</th>
<th>Please describe how this course meets this requirement.</th>
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<tbody>
<tr>
<td>1. It is assumed that students in these courses have sufficient graduate coursework requiring a serious commitment of time and energy and are pursuing a doctoral degree within the university.</td>
<td>This course is part of the core curriculum for the doctoral degree in forensic science. As such, only students that are admitted to the doctoral program in forensic science will be permitted to enroll in this course. As with all proposed 6000 level courses in the forensic science program, the requirements for this course are robust and sufficient for earning a DSc.</td>
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<tr>
<td>2. It is assumed that students in these courses have mastered the ability to</td>
<td>Throughout the semester, students will be required to apply the knowledge</td>
</tr>
<tr>
<td>3. It is assumed that students in these courses have mastered disciplinary knowledge as evidenced by an ability to engage with and contribute to theoretical and empirical knowledge in the field.</td>
<td>A DSc student in this course will master discipline knowledge in the area of Laboratory and Program Management by: identifying formal methods of quality assurance standards to maximize the reliability of scientific data, evaluating and interpret the reliability and reproducibility of good laboratory practice, determining the most appropriate method for maintaining detailed and accurate QA/QC records of work performed using a LIMS system, training and certification of examiners, case and evidence management, emerging legal issues, and development of policies and procedures, understanding the limitations of various disciplines through proficiency testing data with regards to basic research and/or forensic applications, formulating safe work practices for handling biohazardous material and chemical hazards, and comprehending the usefulness and limitations of laboratory accreditation.</td>
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<td>4. It is assumed that students in these courses have mastered the ability to design, conduct, evaluate, complete, and disseminate scholarly contributions in the field as well as to provide supervision of scholarly pursuits if assigned.</td>
<td>This course teaches the key components of Laboratory and Program Management, personnel and legal issues in a laboratory setting, and will help students to understand the need to produce sound scientific data using appropriate standards and controls, written procedures and method validation no matter what field they are employed in. This course will offer a generic description of what is required in the formation of a quality system in any laboratory. This will be achieved by describing the key principles in any QA/QC program with reference to the ANSI-ASQ National Accreditation Board (ANAB), Quality Assurance Standards for Forensic DNA Testing Laboratories, and...</td>
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<tr>
<td>ISO guidelines, together with specific examples from different forensic science specializations.</td>
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<tr>
<td>5. It is assumed that students in these courses demonstrate an individual responsibility, personal accountability, and professional obligation to provide leadership in and a contribution to the field.</td>
<td></td>
</tr>
<tr>
<td>Students will demonstrate individual responsibility, personal accountability, and professional obligations through the graded assessments (i.e. oral and written reports). In addition, contribution to the field will be recognized in the development of papers and policies designed to improve the quality Laboratory Management throughout the forensic science community.</td>
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</table>
FRSC 6203 – Advanced Forensic Program and Laboratory Management

Potential Instructors: Dr. James Creecy, Dr. Tom Jourdan, Dr. Dwight Adams, Dr. Wayne Lord, Dr. Mark McCoy, Dr. John Mabry

Phone:
E-mail:
Office hours:

Course Description: Advanced Forensic Program and Laboratory Management is designed for potential new supervisors and experienced managers that have the responsibility to supervise a forensic unit or laboratory. Topics include training and certification of examiners, case and evidence management, emerging legal issues, and development of policies and procedures. The pros and cons of accreditation from organizations and compliance with standards will be covered. This course will also offer descriptions of what is required in the formation of a quality system in any laboratory. This will be achieved through key principles of a QA/QC program with reference to the ANSI-ASQ National Accreditation Board (ANAB), Quality Assurance Standards for Forensic DNA Testing Laboratories, and ISO guidelines, together with specific examples from different forensic science specializations.

Course Objectives: Upon successful completion of this course, a student should be able to:

Describe the myriad of funding issues facing managers related to budgets and grants.

Define the many issues related to facilities, evidence storage, and security.

Identify key points in selection and training of personnel and the role of diversity, equity, and inclusion in the laboratory.

Demonstrate critical thinking and writing skills on issues relevant to evaluating personnel performance.

Understand the importance of workload distribution and prioritization.

Understand emerging legal issues related to strength and admissibility of forensic evidence in court and legal challenges stemming from laboratory management and practices.

Demonstrate a keen understanding of mental health issues related to personnel.

Understand potential future challenges.

Identify formal methods of quality assurance standards to maximize the reliability of scientific data.

Evaluate and interpret the reliability and reproducibility of good laboratory practice.
Determine the most appropriate method for maintaining detailed and accurate QA/QC records of work performed using a LIMS system.

Analyze routine operational performance in various disciplines through reports and data assessment.

Comprehend the limitations of various disciplines through proficiency testing data with regards to basic research and/or forensic applications.

**Transformative Learning and the Central 6**: At the University of Central Oklahoma, we are guided by the mission of helping students learn by providing transformative experiences so that they may become productive, creative, ethical and engaged citizens and leaders contributing to the intellectual, cultural, economic and social advancement of the communities they serve. Transformative learning is a holistic process that places students at the center of their own active and reflective learning experiences. A student's major field is central to the learning experience and is a vital part of the "Central Six" and will be addressed in the following ways:

- **Discipline Knowledge** – this course provides an advanced understanding of the modern laboratory operations.
- **Leadership** – this course demonstrates leadership skills at all levels of a crime laboratory.
- **Research, Scholarly and Creative Activities** – this course emphasizes best practices of U.S. law enforcement agencies with regards to laboratory operations and management.

**Recommended Textbook**: None

**D2L Access and Modules**: Course materials will be posted on D2L throughout the semester. Each unit in the class will have a corresponding module on D2L. The modules will contain an overview document (which contains all relevant information for the unit), a pdf of the lecture slides, assigned readings (if applicable), and supplementary material. Please check the course site regularly for information. The D2L website is: learn.uco.edu.

**Accommodations**: Students with disabilities who should receive accommodations must contact Disability Support Services (DSS) at (405) 974-2516 (V/TTY). The DSS Office is located in the Nigh University Center, Room 305. See me outside of class as soon as possible to better ensure that accommodations are implemented in a timely fashion so that all students get an equal chance to show their understanding and abilities. The University of Central Oklahoma complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

**UCO Student Information Sheet and Course Concerns or Complaints**: The best way to resolve any conflict is through the proper process. You will more likely be able to have your concerns addressed if you work with the instructor. If you cannot resolve your issues with your instructor, then you may proceed according to the guide below.
1. Talk to your instructor first. Make an appointment during his or her office hours to discuss your concern. Be prepared. If your concern is about a grade, be sure to bring in your papers.

2. If you are still unsatisfied, you can talk to the Institute Director (FSI). You can make an appointment by calling (405) 974-6910. Bring any notes or papers that are pertinent, as well as your course syllabus.

3. If you remain unsatisfied after you speak to both your instructor and the Institute Director or Department Chair, you have further options depending on the nature of the concern.

   A. If your concern deals with a grade issue, the next step involves a formal grade appeal. The procedures are explained in the UCO Catalog.

   B. If you remain unsatisfied with something other than a grade, you can consult the UCO STUDENT INFORMATION SHEET found at http://sites.uco.edu/academic-affairs/files/aa-forms/StudentInfoSheet.pdf

Please see the UCO Student Information Sheet for UCO policies on Academic Integrity; UCONNECT; D2L; ADA Statement; Incomplete Grades; Withdrawals From Class; Emergency Individual Class Drop or Complete Withdrawal; Important Dates; Semester Holidays; Library Hours; Weather Related Information; Emergencies During Final Exams; Final Exam Daily Limits; Contacting Faculty Members; Class Attendance; Expectations of Work; Helpful Numbers; Emergency Evacuations and Drills, and other academic and administrative matters.

Grading: There will be two midterm exams and a final exam. The midterm exams will cover material from lectures and readings. The final exam will be comprehensive. Students will be required to write and present an original report.

Your grade will be calculated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exams (100 pts each)</td>
<td>200 pts</td>
</tr>
<tr>
<td>Final Exam (Comprehensive)</td>
<td>200 pts</td>
</tr>
<tr>
<td>Reading Assignments</td>
<td>50 pts</td>
</tr>
<tr>
<td>Report (75 pts written, 25 pts oral)</td>
<td>100 pts</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>550 pts</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>≥90%</td>
</tr>
<tr>
<td>B</td>
<td>80-89%</td>
</tr>
<tr>
<td>C</td>
<td>70-79%</td>
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</table>

Readings Assignments: I will assign articles throughout the semester for most topics covered in class. Additionally, I will post notes for most topics. These articles and notes will be placed in modules located on D2L. You will be expected to read these articles and
notes prior to coming to class. Supplemental articles will be placed on D2L throughout the semester.

**Student Report:** Students must develop a report over Laboratory Operations Management within a professional scientific laboratory of their choosing. Students are to work independently on this project. Select a topic and provide an overview of the previous and current work in the field. Work with the instructor to make sure that the topic you have chosen is appropriate. You will be required to turn in a final report for this project as well as present your findings in a Powerpoint presentation to the class.

**Literature Review:** You must complete a report containing the information listed below. The report should be at least 5 pages in length and no more than 10 pages (not including the literature cited, tables, or figures). The report should be typed, double-spaced, and in 12-pt Times New Roman or Arial Font. You may add figures or tables if desired/appropriate. Tables and figures should be placed at the end of the report. You must cite at least 10 articles in your report (you may use articles that are required or supplemental reading for the course, but you must include 10 additional articles). The correct citation format and other helpful hints for writing the report are provided at the end of the syllabus. Reports must be submitted to the Dropbox located in D2L. The report must be written as if it were to be submitted to a peer-reviewed journal. This means complete sentences, proper grammar and language (no slang, casual language, embellishments, etc.), and proper format.

**Format** (Please include the following information in the following order):

- Abstract – one paragraph summary of the report
- Review – describe the pertinent literature that has been published to date.
- Conclusions – Address what you think will be the next step in the field with regard to leadership and management within a scientific organization. What are some problems in the field that still need to be addressed?
- Literature Cited – bibliography of all cited work; make sure that the citations occur in the correct format in both the literature cited and the text; the citations in the literature cited should be listed in alphabetical order.
- Figures and Tables – include any appropriate tables or figures; provide proper figure and table legends

**Presentation:** During the final week of class, students will be required to give a 30 minute Powerpoint presentation (including question time) over their report. These presentations will be graded by the instructor as well as by the other students in the class. The presentation should include the following sections: Introduction, Management Operations within a Scientific Organization or Unit, Personnel selection and training, QA/QC within the Organization or Unit. The presentation should be timed at approximately 25 minutes for the presentation of material, 5 minutes for questions from the audience. The presenter should be prepared to defend his/her work. The presentation is worth 25 points.
Attendance: You will be expected to attend class and be on time when we meet. You must be in class to submit assignments. If you miss a class, it is your responsibility to make sure that you obtain any information missed during your absence.

Classroom Policy: Coming to class late, habitually leaving class early, cell-phone use, or creating any disturbance in class is/are not acceptable. Computers will be allowed in the classroom for note-taking purposes only. No cell phones or computers are allowed during tests. Academic dishonesty will not be tolerated.

Academic Dishonesty: Unless specifically allowed by the instructor, using electronic devices (cell phones, cameras, laptops, netbooks, iPads, translators, etc.) during assignments, activities, quizzes, and exams is cheating and will result in a zero (0 points). Using electronic devices to photograph in-class exercises, quizzes, and/or exams is considered academic dishonesty. You should familiarize yourself with the expectations of student conduct and the possible penalties for academic dishonesty found in the following document: http://www.uco.edu/academic-affairs/files/codeofconduct.pdf

Giving of Incompletes (I grades): UCO policy applies and it is not an option for exiting a course due to poor performance. An “I” will be given only if you have completed the course with the exception of some specific material (such as the final), are passing with the exception of the missing material, and we have met to determine when you will make up the material. An “I” will be converted to an “F” if the student does not follow through and complete the course requirements within the stated time limit.