PAC FORM #2

UNIVERSITY COLLEGE of the FRASER VALLEY

COURSE IMPLEMENTATION DATE: [January 2005]
COURSE REVISED IMPLEMENTATION DATE: [ ]
COURSE TO BE REVIEWED: [January 2009]
(Four years after implementation date)

OFFICIAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
Shaded headings are subject to change at the discretion of the department and the material will vary – see course syllabus available from instructor

FACULTY/DEPARTMENT: **CRIMINAL JUSTICE**

COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
CRIM 295		**3**

Theory & Practice of Accident Investigation II
COURSE DESCRIPTIVE TITLE

CALENDAR DESCRIPTION:

This course examines the theory and practice of traffic collision investigations and is designed for police who specialize in traffic accident investigations and general duty officers whose responsibilities include investigating vehicle collisions. The course will provide investigators with advanced skills and techniques for understanding accident dynamics, reconstructing accidents from objective evidence, documenting collision investigations, assessing liability, and giving expert court evidence.

PREREQUISITES: Admission to the BGS Police Studies program

COREQUISITES:

SYNONYMOUS COURSE(S)
(a) Replaces: _____ *(Course #)*
(b) Cannot take: _____ *(Course #)* for further credit.

SERVICE COURSE TO: _____ *(Department/Program)* _____ *(Department/Program)*

TOTAL HOURS PER TERM: 45

STRUCTURE OF HOURS:

Lectures:	30	Hrs
Seminar:		Hrs
Laboratory:	10	Hrs
Field Experience:	5	Hrs
Student Directed Learning:		Hrs
Other (Specify):		Hrs

TRAINING DAY-BASED INSTRUCTION
LENGTH OF COURSE: _____
HOURS PER DAY: _____

MAXIMUM ENROLLMENT: 27
EXPECTED FREQUENCY OF COURSE OFFERINGS: annually
WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only) ☐ Yes ☒ No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department) ☐ Yes ☒ No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE: ☐ Yes ☒ No

AUTHORIZATION SIGNATURES:

Course Designer(s): **A.R. Speevak, BA, MS & J.D. Gillespie**
Chairperson: _____ *(Curriculum Committee)*

Department Head: **Dr. Darryl B. Plecas**
Dean: **Dr. Virginia B. Cooke**

PAC Approval in Principle Date:
PAC Final Approval Date: **January 28, 2005**

LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:

Students will be able to:

- identify, interpret, secure, collect and record evidence to reconstruct the series of events in a vehicle collision.
- record critical measurements of a collision scene and from them accurately reproduce the scene.
- understand and use new technology for measuring collision scenes and the drawing of scale diagrams.
- identify environmental factors, vehicle, driver and pedestrian and road conditions that contribute to collisions.
- understand Newton's Laws relating to motion and use the mathematics (formulae) to determine speed.
- apply techniques for taking proper photographs of a collision scene.
- investigate collisions without driver evidence.
- understand vehicle lamp examination for "off-on" determinations and the proper methods of securing lamps and glass fragments for further forensic analysis.
- taking statements from vehicle drivers, pedestrians and witnesses that are admissible in court.
- prepare a factual and detailed court report of a traffic collision.

METHODS:

Lectures, practical exercises and scenarios, projects, and assessments

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check:) ☒ Yes ☐ No

METHODS OF OBTAINING PLAR:

Contact Department for procedure

TEXTBOOKS, REFEENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

Baker, J.S., Traffic *Accident Investigation Manual*, latest edition.
Carlisle, J.B., Speed *and Acceleration Problems in Motor Vehicle Accidents*, latest edition.
Rivers, R.W., Traffic *Accident Investigators Handbook*, latest edition.
RCMP, Traffic *Accident Investigators Reference Manual*.
Northwestern University Traffic Institute, *Lamp Examination Manual* or Equivalent Resource Material
Traffic Template, University *of North Florida IPTM Blue Blitz Traffic Template with Manual*.

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

WRITTEN REPORT	10%
PROJECTS	40%
FINAL EXAM	50%

WRITTEN ASSIGNMENT

Students will be required to write a detailed Crown counsel report based on the field project of a simulated traffic collision scene. The report will include the speed calculations from tire skid marks, and should have sufficient explanation of technical data as to enable easy comprehension by Crown and the court.

GRADING

The pass mark for this course is 75% due to the importance placed on the credibility of police evidence. The techniques and skills taught will require the students to prepare detailed court reports and present evidence at all court levels and at coroners' inquests.

Academic Grades are shown below:

A+	95% and above	C+	65 – 69%
A	90 – 94%	C	60 – 64%
A–	85 – 89%	C–	55 – 59%
B+	80 – 84%	P	50 – 54%

B	75 – 79%	NC	49% and below
B–	70 – 74%		

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

Week 1: Introduction to the Course and the Series of Events Involved in a Traffic Collision
Students are introduced to the specialized field of traffic collision investigations. The course content and the objectives are explained. This session also covers the accident "Series of Events" by way of a case study.

Week 2: Environmental Factors and Conditions
The session covers weather, environmental, road, vehicle, driver and pedestrian conditions that contribute to traffic collisions. A case study will be given and discussed in class.

Week 3: Traffic Template
The students will be supplied with an approved traffic template and manual (see course materials above). The design features of the template will be shown and demonstrated. Exercises will be conducted in class to ensure the students are able to understand and use the template.

Week 4: Measuring a Collision Scene: Theory
This session introduces students to technology and equipment required for accurately measuring and marking a traffic collision scene. Topics covered include tangible and intangible reference points to facilitate measurements and co-ordinate and triangulation methods of measuring collision scenes from reference points. The importance of marking and recording "short lived" evidence is also covered. Demonstrations and cases studies are included.

Week 5: Measuring a Collision Scene: Field Sketch
The students will participate in a field exercise by measuring and recording the data of a collision scene and preparing a field sketch.

Week 6: Reproducing a Collision Scene: Scale Diagram
Each student will complete a scale diagram from the field sketch and data recorded.

Week 7: Roadway and Vehicle/Pedestrian Evidence
Students learn about identifying and collecting physical evidence on or adjacent to the roadway that contributes to scene reconstruction. The students will participate in identifying and naming evidence marks, impressions and material from tires, vehicle parts, pedestrians and vehicle occupants, the examination of the vehicles involved and the preserving of evidence.

Week 8: Application of Mathematics to Collision Analysis
Students are introduced to Newton's Laws with respect to vehicle motion and dynamics, after which students learn basic formulae for determining vehicle speed from skid marks. Topics include the co-efficient of friction, its relation to drag factors, and methods of determining drag factors. Students engage in practical exercises to calculate drag factors, skid marks and associated speed.

Week 9: Hit and Run Investigations: Taking of statements from Drivers/Pedestrians and Witnesses
This session covers the investigational techniques used in hit and run collision investigations. Students learn the principles of investigational organization, evidence searches, and forensic assistance. Students learn how to question and take statements from drivers, pedestrians and witnesses such that the statements will be admissible in law. Students will learn investigative techniques and related case law.

Week 10: Vehicle Lamp Analysis
This session covers the preliminary examination and securing of vehicle lamps (which may indicate if they were "on or off" at the time of collision). The students will engage in practical exercises where they examine vehicle lamps and filaments from collisions, after which students will be able to determine filament "cold shock breaks" and "hot shock damage".

Week 11: Collision Photography
This session covers techniques for taking proper and meaningful photographs at collision scenes. Session topics include: photographic evidence objectives; fundamental camera operation; camera use in various lighting and weather conditions; the "4" best photos to take at a scene; techniques for photographing vehicles and skid marks; and using aerial or elevated photography. The students will be shown examples of "good" and "bad" photography of collision

scenes.

Week 12: Court Preparation I: General

This session covers evidentiary law, including accepted procedures for collision investigators giving evidence in court. The importance of a professional documentation and accurate and detailed crown counsel reports are discussed. Students will be given a case study of a traffic collision from which the written assignment (Report to Crown counsel) will be completed. The written assignment will be turned in on the following session.

Week 13: Court Preparation II: Technical

How to present mathematical formulae, speed calculations and physical evidence are reviewed. Such topics often receive special scrutiny from lawyers and the court. The review will assist in providing students the necessary knowledge and confidence for technical court presentations.

Week 14: Final Exam