

# ECONOMIC CRIME FORENSICS, M.S.

## Program Description

The goal of this program is to prepare students to enter the field of economic crime in careers such as internal and external fraud auditors, criminal and economic crime investigators, litigation support analysts and anti-money laundering investigators. The program prepares individuals to detect, deter, and investigate instances of economic crime, misconduct, and abuse.

The M.S. in ECF incorporates key components from La Salle's graduate programs in Computer Information Science and Master of Business Administration. The program adds additional theory in areas of criminal justice, litigation preparation, and corporate ethics. The program also provides an additional path for technology managers interested in pursuing a leadership career by integrating financial compliance with corporate business goals. Students complete a capstone experience which integrates theory and practice through either an industry specific research project or a program-related experiential position.

The program is offered in an online format and follows the traditional academic calendar of a fall and spring semester and a shorter summer semester. The fall and spring semesters are divided into two 8 week terms. A full-time graduate student carries a minimum of 6 semester credit hours. Some courses may require more hours per week in some areas of instruction. All courses are online and 3 credits in the length. The courses will meet both synchronously (optional) and asynchronously. Students are required to participate in chat sessions and/or discussion boards, which will take the place of classroom meetings. Synchronous sessions will be recorded for students who are not able to attend the actual session. Students who are not able to attend the synchronous sessions will be asked to complete a short assignment related to the recorded session. Depending on their personal schedules, students may elect to take courses every term or wait for the next term to continue studies. Courses in the summer are also 8 weeks in length. If a student decides to take two courses during the summer session, they will overlap in the time frame.

The M.S. in ECF focuses on a set of theoretical core competencies which include the following:

- Economic crime definition, analysis, and prevention;
- Legal and corporate compliance and ethical issues;
- Economic risk analysis and mitigation; and
- Investigative practices, principles, and prosecution.

## Mission

The M.S. in Economic Crime Forensics augments students' background, to acquire both practical and theoretical knowledge in their chosen field, and to enhance their professional competence. Students who earn a M.S. in Economic Crime Forensics will be prepared to advance in their professional careers while completing a graduate degree.

## Program Specific Information

### Progression through the Program

Ten courses (30 credits) are required for the degree. Each student is required to satisfy the all six required courses (which includes the capstone), and a grouping of 4 additional courses.

## Degree or Certificate Earned

M.S.

## Required for Program Completion

- Courses
  - 10
- Credits
  - 30
- GPA
  - 3.0

## Program Goals

- Prepare students to participate ethically and professionally in a global market.
- Prepare students to enter the field of economic crime prevention and detection and investigation.
- Prepare students to apply standards and best practices of forensics and litigation support.
- Prepare students to be corporate leaders in fraud prevention and deterrence.
- Prepare students to participate ethically and professionally in a global market.

## Student Learning Outcomes

1. Propose business law standards, standards of ethics, and professional codes of conduct related to corporate leadership.
2. Evaluate and support accounting and auditing concepts related to the causation of corporate economic crime.
3. Develop standards of conduct relative to litigation services, including conflicts of interest and background considerations.
4. Develop managerial and communication skills to measure and support fraud deterrence.

Students are required to complete a specialization by selecting 4 courses from either group. If a student does not wish to consider a specialization, they may select any four courses from the groupings.

*All students complete a capstone project.*

## Academic Requirements

| Code  | Title   | Credits |
|---|---|---------|
| <b>Core Courses</b>   |   |         |
| ECF 610   | Criminal Justice and Legal Concepts           | 3       |
| FACC 702  | Financial Statement Fraud                     | 3       |
| FACC 703  | Occupational Fraud and Abuse                  | 3       |
| FACC 704  | The Computer and Internet Fraud               | 3       |
| FACC 705  | Fraud Detection and Prevention: Special Cases | 3       |
| <b>Specialization Courses</b>   |   |         |
| Students select a series of 4 courses from one of the following groups: |   | 12      |

*IT and Cybersecurity Policy Specialization*

|         |   |
|---------|---|
| ECF 625 | Litigation Support Practices and Procedures |
| CYB 644 | Information Security                        |
| CYB 612 | Ethics, Issues, and Government Regulations  |
| CYB 652 | Leadership Assessment and Evaluation        |
| CIS 619 | Crisis Management and Business Continuity   |

*Data Science Specialization*

|         |   |
|---------|---|
| CIS 523 | Data Processing and Database Management |
| CIS 658 | Data Mining                             |
| CIS 633 | Data Analysis with R                    |
| CIS 654 | Artificial Intelligence                 |
| ANA 615 |   |

**Capstone Project**

|         |                      |   |
|---------|----------------------|---|
| ECF 880 | Integrative Capstone | 3 |
|---------|----------------------|---|

**Total Credits** **30**

## Course Sequence

### Tentative Schedule

| Course                    | Title   | Credits   |
|---------------------------|---|-----------|
| <b>First Year</b>         |   |           |
| <b>First Semester</b>     |   |           |
| ECF 610                   | Criminal Justice and Legal Concepts           | 3         |
| FACC 702                  | Financial Statement Fraud                     | 3         |
| <b>Credits</b>            |   | <b>6</b>  |
| <b>Second Semester</b>    |   |           |
| FACC 703                  | Occupational Fraud and Abuse                  | 3         |
| FACC 704                  | The Computer and Internet Fraud               | 3         |
| <b>Credits</b>            |   | <b>6</b>  |
| <b>Third Semester</b>     |   |           |
| FACC 705                  | Fraud Detection and Prevention: Special Cases | 3         |
| Group 1 or Group 2 Course |   | 3         |
| <b>Credits</b>            |   | <b>6</b>  |
| <b>Second Year</b>        |   |           |
| <b>First Semester</b>     |   |           |
| Group 1 or Group 2 Course |   | 3         |
| Group 1 or Group 2 Course |   | 3         |
| <b>Credits</b>            |   | <b>6</b>  |
| <b>Second Semester</b>    |   |           |
| Group 1 or Group 2 Course |   | 3         |
| Group 1 or Group 2 Course |   | 3         |
| <b>Credits</b>            |   | <b>6</b>  |
| <b>Third Semester</b>     |   |           |
| ECF 880                   | Integrative Capstone                          | 3         |
| <b>Credits</b>            |   | <b>3</b>  |
| <b>Total Credits</b>      |   | <b>33</b> |

## Course Descriptions

### Analytics

#### Computer Information Science

##### CIS 523 Data Processing and Database Management

This course entails analysis and evaluation of database designs in relation to the strategic mission of the project. Topics include database systems, database architectures, and data-definition and data-manipulation languages. Also included are logical and physical database design, database models (e.g., entity-relationship, relational), normalization, integrity, query languages including SQL, and relational algebra, in addition to social and ethical considerations and privacy of data. This course incorporates case studies and a project using a relational DBMS.

##### CIS 619 Crisis Management and Business Continuity

This course explores the area of Risk Management with particular emphasis on Business Continuity Management. Risk Management involves assessing threats which may lead to disastrous events, evaluating control alternatives and implementing solutions. Potential threats include terrorist, criminal, industrial, natural, technological, environmental, economic and political. Practical solutions to enable an organization to protect assets, mitigate risk, manage crisis and recover after a disaster will be discussed. The role of business and government will be explored, as well as professional practices, standards and strategies. The course is designed to expose the student to all aspects of a holistic Business Continuity & Crisis Management program and to determine the most appropriate requirements.

##### CIS 654 Artificial Intelligence

This course introduces students to the field of artificial intelligence (AI). Students will learn how big data and data mining techniques are utilized by machines to create the AI models used by autonomous aircraft and automobiles, personal assistants, IT security software, fraud investigations and credit bureaus. The course will review the history, present day use, and future of artificial intelligence. Through case studies and current events, students will examine the benefits and risks associated with AI. The course will cover issues related to AI and privacy, ethics, and machine bias. Neuromorphic computing, the Open Neural Network Exchange (ONNX), and data analytics will also be discussed.

##### CIS 658 Data Mining

This course introduces the field of data mining, with specific emphasis on its use for Machine Learning algorithms. Techniques covered may include conceptual clustering, learning decision rules and decision trees, case-based reasoning, Bayesian analysis, genetic algorithms, and neural networks. The course covers data preparation and analysis of results. Skills in Microsoft Excel are useful. Prerequisite(s): CIS 523

### Cybersecurity

#### CYB 612 Ethics, Issues, and Government Regulations

This course considers privacy both on- and off-line; legal background of intellectual property and e-mail; ethics and codes of ethics; effects of computers on work and society; and responsibilities and risks of computing, including topics such as accuracy of information, e-waste, and multitasking. This course includes an examination of government policies and regulations related to data security and information assurance.

**CYB 644 Information Security**

This course explores all aspects of computing and communications security, including policy, authentication, authorization, administration, and business resumption planning. It examines key security technologies, such as encryption, firewalls, public-key infrastructures, smart cards, and related technologies that support the development of an overall security architecture. Coursework includes plans for developing and implementing a technology security strategy focused on business needs. Prerequisite(s): CIS 540

**CYB 652 Leadership Assessment and Evaluation**

This experiential course emphasizes the importance of feedback and self-assessment for leadership development. It includes extensive assessment of each participant's management style and skills based on self-evaluations (using structured questionnaires) and feedback from coworkers, faculty, and other participants. Leadership development experiences emphasize time and stress management, individual and group problem-solving, communication, power and influence, motivation, conflict management, empowerment, and team leadership. Each participant identifies skills he or she needs to develop and reports on efforts to develop those skills.

**Econ Crime Forensics****ECF 610 Criminal Justice and Legal Concepts**

The course provides an overview of the legal systems and expertise required for fraud risk professionals. The course enables participants to deepen their knowledge of the U.S. legal system by acquiring a broader understanding of processes and procedures that focus on fraud investigation, prosecution, and civil remedies. The course covers knowledge of law enforcement agencies, federal rules and regulations and evidence management, and expert testimony.

**ECF 625 Litigation Support Practices and Procedures**

Learners will explore white collar misconduct that constitutes civil and/or criminal fraud in a corporate setting, including but not limited to: (1) falsification of business records; (2) false billing; (3) forgery of documents or signatures; (4) embezzlement; (5) creation of false companies; (6) false insurance claims; (7) bankruptcy fraud; (8) investment frauds (such as Ponzi schemes); (9) tax fraud; and (10) securities fraud. Students will develop processes and procedures for proper evidence management as well as learn how to prepare to serve as an expert witness and write legally sound expert reports. Prerequisite(s): ECF 610

**ECF 628 Cybercrime, Cyber Warfare, Cyber Espionage**

This course introduces students to the differences between cybercrime, cyber warfare and cyber espionage by discussing the relationship of cyber intrusions and cybersecurity to nations, businesses, society, and people. Students will use case studies to analyze the threats, vulnerabilities and risks present in these environments, and develop strategies to reduce the breaches and mitigate the damages.

**ECF 644 Information Security**

This course explores all aspects of computing and communications security, including policy, authentication, authorization, administration, and business resumption planning. It examines key security technologies, such as encryption, firewalls, public-key infrastructures, smart cards, and related technologies that support the development of an overall security architecture. Coursework includes plans for developing and implementing a technology security strategy focused on business needs. Prerequisite(s): ECF 604

**ECF 680 Integrative Capstone****ECF 880 Integrative Capstone**

The capstone project is an opportunity to pursue an independent learning experience focused on a specific aspect of economic crime forensics based on the student interest. The capstone is intended to extend students beyond the coursework and cases to apply knowledge in ways that are relevant to their professional goals. Students will work on a research project or in an experiential learning environment. Each student will be required to present his/her capstone both as an oral presentation and a summary written document.

**Faculty**

Associate Professors: Redmond

Assistant Professors: McCoey

Lecturers: Casey, Monaghan, Smith, Walters, Zikmund

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