

MARYLAND HIGHER EDUCATION COMMISSION
ACADEMIC PROGRAM PROPOSAL

PROPOSAL FOR:

- NEW INSTRUCTIONAL PROGRAM
 SUBSTANTIAL EXPANSION/MAJOR MODIFICATION
 COOPERATIVE DEGREE PROGRAM
 WITHIN EXISTING RESOURCES or REQUIRING NEW RESOURCES

(For each proposed program, attach a separate cover page. For example, two cover pages would accompany a proposal for a degree program and a certificate program.)

Stevenson University
Institution Submitting Proposal

Fall, 2017
Projected Implementation Date

MFS
Award to be Offered

Forensic Science
Title of Proposed Program

210506
Suggested HEGIS Code

43.0106
Suggested CIP Code

School of Graduate & Professional Studies
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Signature and Date

President/Chief Executive Approval

February 8, 2017
Date

Date Endorsed/Approved by Governing Board

Stevenson University
School of Graduate and Professional Studies
Proposal for New Academic Program
Master of Forensic Science (MFS) with
Areas of Concentration in Forensic Biology and Forensic Chemistry

A. Centrality to institutional mission statement and planning priorities:

1. *Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.*

Description of Master Forensic Science (MFS)

The School of Graduate and Professional Studies (GPS) at Stevenson University (Stevenson or the University) currently offers an MS in Forensic Studies with six tracks (accounting, computer forensics, criminalistics, interdisciplinary, investigations, and legal) and an MS in Forensic Science with three tracks (biology, chemistry and crime scene investigation). Stevenson is proposing to redesign these approved degrees as follows:

MS in Forensic Studies

- Modify the existing MS in Forensic Studies to be solely an interdisciplinary degree. Interdisciplinary track students will remain in this degree.
- Add a new MS degree in Forensic Accounting. Students interested in the accounting track in the MS in Forensic Studies will take this new degree.
- Add a new MS degree in Digital Forensics. Students interested in the computer forensics track in the MS in Forensic Studies will take this new degree.
- Add a new MS degree in Forensic Investigation. Students interested in the investigations track and legal track in the MS in Forensic Studies will take this degree.
- Add a new MS degree in Crime Scene Investigation. Students interested in the criminalistics track in the MS in Forensic Studies, as well as students interested in the crime scene investigation track in the MS in Forensic Science, will take this new degree (see #2 below).

MS in Forensic Science

- Add a new Masters in Forensic Science degree (MFS) to include two areas of concentration: forensic biology and forensic chemistry. Students interested in the biology track and chemistry track in the MS in Forensic Science will take this degree.
- Add a new MS degree in Crime Scene Investigation. Students interested in the crime scene investigation track in the MS in Forensic Science, as well as students interested in the criminalistics track in the MS in Forensic Studies, will take this new degree (see #1 above).
- Discontinue the existing MS in Forensic Science after teaching out current students in the degree.

It should be emphasized that this proposal simply seeks to convert the existing biology and chemistry tracks in the approved MS in Forensic Science into a new Master of Forensic Science degree (MFS) with areas of concentration in forensic biology and forensic chemistry. The MS in

Forensic Science will be discontinued after all current students have been taught out. The MFS program can be completed entirely online. Some hybrid courses may still be offered as enrollment warrants. In 2016, Stevenson was approved to participate in the State Authorization Reciprocity Agreement (SARA) that established national standards for interstate offering of postsecondary distance education programs. Stevenson's participation in SARA facilitates enrollment of out-of-state students

The MFS is a direct outgrowth of GPS's longstanding, now over ten years old, master's degree in Forensic Science. Currently, GPS students graduate with the MS in Forensic Science with track courses in either biology, chemistry, or crime scene investigation. The program's Forensic Advisory Committee suggested the creation of a separate crime scene investigation master's degree in place of the current offering of a single degree with tracks. It was their opinion that this approach would create a degree more meaningful and clearer to the profession than the current generic title. As a result, we propose to offer a separate master's degree program in crime scene investigation and a MFS with areas of concentration in forensic biology and forensic chemistry as areas of concentration.

The proposed MFS requires modification of several courses in order to offer the program completely online and to enhance student learning in the field. The program credit hours will be reduced from 41-42 to 36. The program will be offered in an online, accelerated format, permitting students to complete this master's program in as few as eighteen months and without having to come to campus to attend classes.

The proposed degree will require successful completion of 36 credit hours of graduate level coursework consisting of 24 credit hours of core forensic courses and 12 in one of two areas of concentration, Forensic Biology or Forensic Chemistry. The following grid compares the current biology and chemistry tracks in the current MS in Forensic Science with the proposed MFS with areas of concentration in Forensic Biology or Forensic Chemistry:

CURRENT MS in FORENSIC SCIENCE PROGRAM			PROPOSED MFS PROGRAM		
Core Courses			Core Courses		
FSCI 500	Survey of Forensic Science	3	FSCI 500	Survey of Forensic Science	3
FSCI 610	Physical Evidence and Crime Scene	3	FSCI 610	Physical Evidence and Crime Scene	3
FSCI 615	Safety/Quality Control/Quality Assurance	2	FSCI 615	Quality Assurance/Quality Control	3
FSCI 655	Practicum Rotations	3	FSCI 655	Practicum Rotations	3
			OR	OR	
			FSCI 675	<i>The Crime Laboratory: Structure and Operations</i>	3
FSCI 720	Seminar in Forensic Science I	1	<i>Eliminate from program</i>		
FSCI 721	Seminar in Forensic Science II	1	<i>Eliminate from program</i>		
			FSCI 702	<i>Seminar in Forensic Science</i>	3
FSCI 760	Research Project and Presentation I	3	FSCI 760	Research Project and Presentation I	3
FSCI 761	Research Project and Presentation II	3	FSCI 761	Research Project and Presentation II	3
FSCOR 601	Foundations of Justice	3	<i>Eliminate from program</i>		

FSCOR 604	Evidence	3	<i>Eliminate from program</i>		-
FSCOR 701	Mock Trial	3	FSCI 701	Trial Practice	3
TOTAL CORE CREDITS		28	TOTAL CORE CREDITS		24
Biology Track			Forensic Biology Area of Concentration		
FSCI 640	Serology and Immunology	4	FSCI 640	Serology and Immunology	3
FSCI 645	DNA Analysis	3	FSCI 645	DNA Analysis	3
FSCI 660	Forensic DNA Computer Applications	3	FSCI 660	Forensic DNA Computer Applications	3
Elective	Forensic Science or Forensic Studies	3 - 4	Electives	Forensic Science or Forensic Studies	3
TOTAL BIOLOGY TRACK CREDITS		13 - 14	TOTAL FORENSIC BIOLOGY AOC CREDITS		12
Chemistry Track			Forensic Chemistry Area of Concentration		
FSCI 617	Trace Evidence	4	FSCI 617	Trace Evidence	3
FSCI 620	Drug Analysis	3	FSCI 620	Drug Analysis	3
FSCI 670	Forensic Toxicology	3	FSCI 670	Forensic Toxicology	3
Elective	Forensic Science or Forensic Studies	3 - 4	Elective	Forensic Science or Forensic Studies	3
TOTAL CHEMISTRY TRACK CREDITS		13 - 14	TOTAL FORENSIC CHEMISTRY AOC CREDITS		12
TOTAL CREDITS (CORE + TRACK)		41 - 42	TOTAL CREDITS (CORE + AOC)		36

How the MFS with Areas of Concentration in Forensic Biology and Forensic Chemistry Relates to Stevenson University's Approved Mission

Stevenson University's approved mission is as follows:

The University is an innovative, coeducational, independent institution offering undergraduate and graduate students a career-focused education marked by individualized attention, civility, and respect for difference. The University blends the liberal arts with career exploration and planning, complementing a traditional education with applied learning beyond the classroom. The University meets students where they are and supports and challenges them to become reflective and accomplished individuals committed to a lifetime of learning and contribution. Students graduate with the competence and confidence needed to address creatively the opportunities and problems facing their communities, the nation, and the world. The University is an innovative, coeducational, independent institution offering undergraduate and graduate students a career-focused education marked by individualized attention, civility, and respect for difference. The University blends the liberal arts with career exploration and planning, complementing a traditional education with applied learning beyond the classroom. The University meets students where they are and supports and challenges them to become reflective and accomplished individuals committed to a lifetime of learning and contribution. Students graduate with the competence and confidence needed to address creatively the opportunities and problems facing their communities, the nation, and the world.

The MFS with Areas of Concentration in Forensic Biology and Forensic Chemistry will equip students with the ability to visualize and achieve excellence in a dynamic global community. Students will graduate with the competence and confidence needed to address creatively the opportunities and problems facing their communities, the nation, and the world. Creation of this program is consistent with Stevenson's mission and goals as a career-focused university and will enable Stevenson to better respond to the demand in the field.

2. *Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.*

How the MFS with Areas of Concentration in Forensic Biology and Forensic Chemistry Supports Stevenson University's Goals

The proposed program supports Stevenson University's strategic goals and are an institutional priority. Stevenson University has a long history of rising to the challenge to provide its students with the education demanded of them by employers. This proposed program modification is in direct response to market demands, as is shown in the research section of this proposal.

The University's 2017-2018 Business Plan, which flows directly from the University's Strategic Plan, includes the following goal and objective within the strategic area of Academic Affairs. The proposed program directly supports this goal.

Strategy 1: Academic Affairs

Goal 5: Increase enrollment across all schools of the University.

Objective A: Increase enrollment by establishing new cost effective degree programs that align with the mission and values of the University and reflect career trends and market demands.

This program will meet Goal 5, Objective A by implementing a modified MS in Forensic Science that addresses a critical market need and helps to advance the career of crime scene investigators in the region.

As a key component of the new degree, graduate students will put theory into practice. The program integrates advances in technology into the content and focus, thus enabling candidates to use technology in research and problem solving. The online design of the programs makes it accessible to a larger number of candidates, and the focus on advancing 21st century skills and closing achievement gaps in underserved populations aligns with current educational trends.

Evidence affirming that the MFS with Areas of Concentration in Forensic Biology and Forensic Chemistry is a Stevenson University Priority

The University's Board of Trustees and President's Cabinet have affirmatively concluded that the MFS with areas of concentration in Forensic Biology and Forensic Chemistry is central to the University's priorities.

B. Critical and compelling regional or Statewide need as identified in the State Plan:

1. *Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:*

- *The need for the advancement and evolution of knowledge;*
- *Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education;*
- *The need to strengthen and expand the capacity of historically black institutions to provide high quality and unique educational programs.*

The proposed degree focuses on the forensic technician and the skills necessary to be successful. The program focuses on the application of the physical, biomedical, and social sciences to the analysis and evaluation of physical evidence. Scientific and technological advances are expected to increase the availability, reliability, and usefulness of objective forensic information used as evidence in trials. As a result, forensic science technicians will be able to provide even greater value than before.

The "CSI" effect has increased the awareness of forensic evidence among potential jurors, and there is now an expectation that forensic evidence should be presented in many trials. In the past, forensic technicians developed techniques and skills through on-the-job experience. Because of the growing demand for forensic evidence, there is now a need for academic programs that help prepare individuals with the corresponding knowledge and skills. This degree will equip students with the ability to fill essential criminal justice positions and to achieve excellence in their profession.

2. *Provide evidence that the perceived need is consistent with the Maryland State Plan for Postsecondary Education.*

The proposed MFS aligns with Goals 1, 4 & 5 of *Maryland Ready*, the 2013-2017 Maryland State Plan for Postsecondary Education.

Goal 1: Quality and Effectiveness

This program aligns with Maryland's goal to enhance "its array of postsecondary education programs" towards fulfilling the "evolving needs of its students, the State and the nation" (p. 17). The master's program proposed here fulfills the need to prepare students to "advance in their careers...emphasizing ethical principles and practices in ...professional interactions:" (p.18) The adjunct faculty who teach in this program will be working professionals who will "provide invaluable benefits to students and...offer certain kinds of specialized instruction." (p.18) Finally, the program is supported by a strong staff of student enrollment counselors and success coaches that help bolster students and foster success and retention.

Goal 4: Innovation

This program is consistent with Maryland's aspiration as a leader in "the exploration, development, and implementation of creative and diverse education and training opportunities." Stevenson University has been a state leader among the independent college and university community in facilitating non-traditional student access to education through online programming – programming that is meeting the state's goal for providing new, transformative

approaches to delivering instruction and implementing new systems of facilitating student success. (p.44) Stevenson's online program is designed specifically to incorporate appropriate technology to facilitate the delivery of quality education that enhances learning and increases information literacy.

Goal 5: Economic Growth and Vitality

The proposed program aligns well with Maryland's goals for economic growth and vitality. The State of Maryland is home to a large number of financial, government, and private institutions that require the skills of trained forensic scientists. This program will provide trained forensic scientists to help fill the needs for the state-based institutions, training that aligns "with business workforce prerequisites and emerging needs." (p. 52) Further, this program was suggested by the Advisory Board for the existing forensic studies programs, industry specific experts who voiced a need for this program.

Thus, in many ways, this proposed program meets several of the *Maryland Ready* Goals.

C. Quantifiable & reliable evidence and documentation of market supply & demand in the region and State:

1. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

Scientific and technological advances are expected to increase the availability, reliability, and usefulness of objective forensic information used as evidence in trials. As a result, forensic science technicians will be able to provide even greater value than before. More forensic science technicians will be needed to provide timely forensics information to law enforcement agencies and courts. Popular media have increased the awareness of forensic evidence among potential jurors, and there is now an expectation that forensic evidence should be presented in many trials. Competition for jobs will be strong because of the substantial interest in forensic science and crime scene investigation that has been generated by popular media. Applicants who have both a bachelor's degree in a natural science and a master's degree in a forensic-related field will have the best opportunities.

The U.S Department of Labor reports that between 2014 and 2024 the number of forensic technician jobs will grow by 3,800 (26.6%), which is faster than average. In Maryland, the growth rate is projected to be 28% between 2014 and 2024 due, in part, to the large federal agency presence in the State. The DC metropolitan area (which includes parts of Virginia, Maryland, and West Virginia) is set to grow at a rate of 22.8%. Clearly, there is considerable growth rate forecast for the future. The national employment outlook is as follows:

Employment projections data for forensic science technicians, 2014-24

Occupational Title	SOC Code	Employment, 2014	Projected		Change, 2014-24		Employment by Industry
			Employment, 2024	Percent	Numeric	Percent	
Forensic science technicians	19-4092	14,400	18,200	27	3,800	[XLSX]	

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

(retrieved from: <http://www.bls.gov/oo/life-physical-and-social-science/forensic-science-technicians.htm#tab-6>)

National Employment Matrix

Below are the industries where **Forensic science technicians** are employed. This occupation includes the example job you selected, **Forensic Analyst**.

Show entries

Industry Title	Code	2014		Projected 2024		Employment change, 2014-2024	
		Employment (in thousands)	Percent of Occupation	Employment (in thousands)	Percent of Occupation	Number (in thousands)	Percent
Total employment		14.4	100.0	18.2	100.0	3.8	26.6
Local government, excluding education and hospitals	999300	8.4	58.3	10.6	58.4	2.2	26.8
State government, excluding education and hospitals	999200	4.3	29.6	5.2	28.5	0.9	21.9
Medical and diagnostic laboratories	621500	0.5	3.7	0.9	4.7	0.3	60.2
Management, scientific, and technical consulting services	541600	0.4	2.6	0.6	3.1	0.2	53.0
Testing laboratories	541380	0.2	1.7	0.3	1.7	0.1	24.6
Federal government, excluding postal service	999100	0.2	1.1	0.2	0.9	0.0	8.5
Colleges, universities, and professional schools; state	611302	0.1	0.5	0.1	0.5	0.0	24.8
Psychiatric and substance abuse hospitals; state	622202	0.1	0.6	0.1	0.4	0.0	-24.3
Self-employed workers	TE1110	0.1	0.4	0.1	0.4	0.0	9.5

The Baltimore Workforce Development Board has selected eight targeted industries for workforce development. To choose the most promising industries, the BWDB analyzed current need, wage growth, past employment growth, projected employment growth, potential for career ladders and availability of entry-level jobs. The Bioscience sector was one of the eight identified in this process and includes industries that are "biology driven, and their activity substantially involves research, development or manufacture of the following: 1) Biologically active molecules; 2) Devices that employ or affect biological processes; and 3) Biological information resources. Within this broad definition, the target sector includes the following employers: 1) Private sector (Bioscience companies- R&D, Service and Manufacturing, Testing labs such as Quest Diagnostics, and Hospital Labs such as University of Maryland Medical Center); 2) Higher Education (University research labs); 3) Federal Labs (such as National Institutes of Health); and 4) Research Institutes." (<http://www.baltoworkforce.com/targind.htm>).

2. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.

As reflected above, relating to the number of anticipated vacancies, clearly the small number of current graduates (detailed below) will be unable to meet the needs of the state and the country.

The table below provides information regarding the graduates from forensic science and technology programs from Maryland and regional institutions:

CIP CODE	MS Forensic Science & Technology					
	43.0106					
YEAR	2015	2014	2013	2012	2011	2010
Institution Name						
George Mason University	28	36	27	22	1	
George Washington University	17	19	53	68	52	66
Marshall University	19	20	16	20	18	9
Pennsylvania State University	9	5	9	6	5	8
Towson University	16	20	9	15	19	12
Virginia Commonwealth University	16	20	21	18	23	20
West Virginia University	2	1	5	5	1	2

3. Data showing the current and projected supply of prospective graduates.

The number of graduate students in the current program selecting the biology track in 2016 is 17 and the number of graduate students in the current program selecting the chemistry track in 2016 is 14. Anticipating a minimum 10% growth per year for this program, the following projections are for enrollments:

Program	Year 1 2017-2018	Year 2 2018-2019	Year 3 2019-2020	Year 4 2020-2021	Year 5 2021-2022
MFS with Forensic Biology AOC	19	21	23	25	28
MFS with Forensic Chemistry AOC	15	16	18	20	22

Based on these projections, the estimated number of potential graduates from the program are as follows:

Program	Year 1 2019-2020	Year 2 2020-2021	Year 3 2021-2022	Year 4 2022-2023	Year 5 2023-2024
MFS with Forensic Biology AOC	9	11	12	14	17
MFS with Forensic Chemistry AOC	6	7	9	11	13

D. Reasonableness of program duplication:

- 1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.*

Demographic shifts in the college age population in Maryland requires innovative ways to provide education and retraining. Those students 25 year of age or older make up 32% of the total and these older students require more flexibility in academic programs, support services and delivery methods. They require flexible class schedules. Changes in employment patterns and skill requirements for those currently employed necessitate increased educational attainment and advanced skills through the attainment of a master's level degree. None of the programs described below are offered in a part-time, flexible modality that is suitable to the adult populations.

George Mason University (GMU) in Virginia offers a 33 credit onsite only MS with similar coursework. The program contains a forensic capstone similar to trial practice course at SU. It does not, however, afford students the ability to participate in GMUs accelerated BS/MS programs as does Stevenson. Virginia Commonwealth University in an onsite program that has objectives most closely aligned with SU program but it is only available for full-time students. George Washington University, located in Washington, DC, offers an MFS in Forensic Chemistry and MFS in Forensic Molecular Biology onsite only at its Mount Vernon Campus in Virginia. The foci of these programs is solely on drug chemistry and trace evidence but is missing the legal trial practice and laboratory management and safety components central to the Stevenson degree. In West Virginia, Marshall University teaches an onsite, full-time only program that is similarly missing the evidence/legal component of the Stevenson degree. West Virginia University provides a 36 hour certificate program for laboratory managers, undergraduate and graduate certificates in forensic accounting and fraud examination. These programs are more related to business and not the science of forensics analysis. The Pennsylvania State University's 42 credit hour program has both chemistry and biology areas of focus but is onsite and full-time and thus unavailable to part-time adult students who are working.

In Maryland, Towson University offers a 37 credits master's in forensic science but the program is only for those willing to go full-time and the program is missing the legal focus of the Stevenson program.

- 2. Provide justification for the proposed program.*

Based on the employment projections and graduation data presented, it is clear that there is a need for the program as modified. While other programs may appear similar to the Stevenson program all others are onsite and designed for full-time students, not the working adults that are the hallmark of Stevenson. Further, this program's online delivery will appeal to students beyond the geographical borders of the state and region and help fulfill the national need for forensic scientists.

E. Relevance to high-demand programs at Historically Black Institutions (HBIs)

Discuss the program's potential impact on the implementation or maintenance of high-demand programs at HBIs.

The proposed program is expected to have no impact on Maryland HBIs as there is no program duplication.

F. Relevance to the identity of Historically Black Institutions (HBIs)

Discuss the program's potential impact on the uniqueness and institutional identities and missions of HBIs.

The proposed program is not expected to have any impact on the uniqueness, institutional identity, or mission of HBIs as there is no program duplication.

G. Adequacy of curriculum design and delivery to related learning outcomes consistent with Regulation .10 of this chapter

1. *Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements.*

Required Courses:

FSCI 500 – Survey of Forensic Science (3 credits)

Provides the student with an understanding of the two primary arenas of forensic science-the lab and the courtroom. Topics covered will include forensic chemistry, pattern analysis, forensic biology, forensic microscopy, the expert witness, physical evidence and the crime scene. Topics related to employability as a forensic scientist and workplace demands will also be introduced. In this course, students will begin to explore in detail their specific areas of interest within the broad discipline of Forensic Science.

FSCI 610 – Physical Evidence and Crime Scene (3 credits)

Covers how to identify physical evidence and recognize its value as it relates to the solution of crime. The concepts of identification, individualization, and association will be discussed. The categories of physical evidence studied will include the recognition and collection methods of fingerprints, drugs, documents, soil, arson evidence, gunshot residue, hair, fiber, and the biological evidence categories, such as blood, saliva, and semen. The value of DNA evidence will be discussed.

FSCI 615 – Safety/Quality Control/Quality Assurance (3 credits)

Prepares students to be knowledgeable in the stringent safety and quality assurance procedures routinely in operation within an accredited forensic laboratory. Additionally, students will learn about the quality criteria that govern the work product of an accredited forensic lab. The course will emphasize the practices that protect the work product through good QC/QA with emphasis on current accreditation criteria, and those policies that protect the most important aspect of the lab-the employee.

FSCI 655 -- Practicum Rotations (3 credits)

This course is primarily available to students in the BS/MS Program; however, graduate students who can make the commitment to the requirements of this course may take it in lieu of

FSCI 675. This course will provide students with an actual interaction with working crime laboratories. They will see firsthand how evidence is received, analyzed by the appropriate forensic units, and then returned for storage in the Evidence Vault. Students will interact with actual laboratory personnel and getting a feeling for career values in this area of applied science. Students will be required to keep a journal of their experiences within the crime laboratories as well as write a paper dealing with them.

FSCI 675 – The Crime Laboratory: Structure and Operations (3 credits) - NEW

This course would describe the structure and operations of a modern day crime laboratory facility. Students would be made aware of the various forensic disciplines comprising a crime laboratory as well as the management structure that is found in the majority of crime laboratories that are under the auspices of a law enforcement agency. Students will be made aware of the supervisory responsibilities of management personnel and the practices that are used by management to fulfill the requirements of ASCLD/LAB accreditation.

FSCI 702 – Seminar in Forensic Science (3 credits) - NEW

Covers a broad range of topics within the forensic science disciplines. The student will prepare presentations based on papers from peer-reviewed scientific journals and will present these papers to his/her peers for discussion and critique of the scientific merit of the paper. In addition, visiting forensic scientists will present periodically on new techniques, topics and research in the forensic sciences. Topics related to professional practice will also be emphasized, including standards for ethical behavior, workplace demands, and professionalism.

FSCI 760 – Research Project and Presentation I (3 credits)

Begins the process of a formal master's thesis or scientific paper. This course is the first half of a two course, year-long sequence that will conclude with FSCI 761. The student will conduct a forensic science research project on campus or at an approved off-campus facility. Under the direction of the host mentor, each student will perform independent and original research. The student will develop a formal research proposal which he/she will then present to a faculty panel. The student will complete a minimum of 200 hours of laboratory work during this course. Written requirements include keeping a formal laboratory notebook, preparing the introduction/literature review section of the thesis, and completing initial drafts of the methods and results sections of the thesis.

FSCI 761 – Research Project and Presentation II (3 credits)

Culminates in a formal master's thesis or a formal scientific paper. This course is the second half of a two course, year-long sequence that began with FSCI 760. The student will complete the forensic science research project begun in FSCI 760. The student will complete the forensic science research project on campus or at an approved off-campus facility. Under the direction of the host mentor, each student will continue to perform independent and original research. The student will complete an additional 200 hours of laboratory work during this course toward the completion of the thesis. Requirements include keeping a formal laboratory notebook, and completing and defending the final draft of the Master's thesis. Additionally, the student will present his/her research results to the scientific community in the form of a seminar and/or poster presentation.

FSCI 701 – Trial Practice (3 credits)

Prepares students to testify in court proceedings by requiring them to undergo examination in a mock grand jury setting, a mock trial cross-examination and/or a mock deposition. Oral communication skills as they relate to eliciting and giving testimony will be stressed. The

effective use of exhibits as aids to testimony will be emphasized. Students will learn how to present physical and documentary evidence using technology that includes a document camera, SmartBoard, and projection media. Students also prepare CVs. Class will focus on discussion of the American Court system, courtroom procedures, relevant Fourth Amendment cases, the admissibility of expert testimony, ethics and objectivity as they pertain to experts, and how to be an effective testifying expert. Legal cases will be analyzed with respect to the proper collection, analysis and presentation of evidence in court. Students will have the opportunity to discuss with practicing forensic scientists, technicians and members of the defense bar, issues that pertain to proper evidence collection and testifying in court.

Forensic Biology Area of Concentration Required Courses:

FSCI 640 – Serology and Immunology (3 credits)

Involves a detailed study of the structure and function of the immune system, and in particular, antigen-antibody reactions with applications to forensic science. Students learn to perform a variety of laboratory tests in the screening of biological materials, such as blood, semen, saliva, etc, and use of microscopy. Identification of the source material and feasibility for DNA analysis are key aspects of the course.

FSCI 645 – DNA Analysis (3 credits)

Masters and applies a variety of concepts related to DNA structure and genetic transference. Various techniques for DNA analysis will be applied and evaluated, such as PCR, STR and Y-STR. Capillary electrophoresis procedures will be utilized. Students will also become familiar with and learn to use the national DNA database CODIS.

FSCI 660 – Forensic DNA Computer Applications (3 credits)

Provides students with exposure to a wide variety of computer applications that are commonly encountered within the forensic DNA field. The course includes both analytical applications and database applications; with four modules assigned to each. Each module will cover the basis of the application, the different options available for the application, and an explanation of the functionality of the application. The analytical application includes modules on real time PCR analysis, length based DNA analysis, sequence based DNA analysis, and expert analysis systems. The database application includes modules on quality assurance databases, sample tracking databases, comparative databases, and population databases.

Forensic Chemistry Area of Concentration Required Courses:

FSCI 617 – Trace Evidence (3 credits)

Prepares students to evaluate physical evidence through the use of microscopic, chemical, and instrumental means. The course will emphasize the scientific procedures used to identify the evidence, the analysis of data generated during the identification phase, and the inductive reasoning process which allows the forensic scientist to draw conclusions based on the evidence at hand.

FSCI 620 – Drug Analysis (3 credits)

Introduces students to the "analytical approach" to drug analysis in a forensic laboratory. Students will be taught how to define the problem, take a representative sample, isolate, identify, and quantitate various classifications of controlled dangerous substances. Students will learn how to put the findings into proper report format.

FSCI 670 – Forensic Toxicology (3 credits)

Studies the mechanisms of action (absorption, distribution, metabolism, and excretion) by which xenobiotics (drugs and environmental chemicals) enter the body and cause an effect. The course will also discuss the forensic analytical application of detection and interpretation of the toxicological findings

Suggested Elective Courses:

FSAAC 620 – Forensic Information Technology (3 credits)

Introduces forensic computer science, including techniques used to investigate computer crime scenes as well as computer hardware and software used to solve computer crimes. Students study the history of computer crimes and the important legal and social issues related to them.

FSCI 540 – Crime Scene Photography (3 credits)

Explores the basic concepts and skills of photography including the use and operation of SLR and Digital cameras, the fundamentals of proper lighting, film selection, picture composition, film processing and printing. These skills will be developed as they pertain to photographing a crime scene and specific areas of a crime scene, such as fingerprints, blood splatters, firearms, burn marks, victims, and tire tracks.

FSCI 630 – Crime Scene Investigation (3 credits)

Teaches the student how to process a crime scene properly. Students learn how to photograph, sketch, and document a crime scene for presentation of those findings in a court of law. Students will be given the opportunity to perform hands on activities, such as development of latent prints, lifting and preserving prints, making plaster casts of impressions, packaging and preserving biological types of evidence, and performing elementary screen tests for some evidence categories.

FSCI 632 – Pattern Analysis (3 credits)

Enhances the student's knowledge in the area of forensic science known as Pattern Analysis. Specific areas of coverage within this topic are latent prints, firearms/toolmarks, bloodstain patterns, and questioned documents. The central concept of the course is that items of evidentiary value (known vs. questioned) can be associated with each other through an examination and correlation of innate patterns. This course expands the application of comparative methods of analysis first introduced in FSCI 500.

FSINV 600 – Investigative Techniques/Interviewing (3 credits)

Examines how to gather testimonial evidence by interviewing persons of interest, as well as how to prepare reports of investigation and oral presentations. Students will learn the importance of planning thoroughly before conducting interviews by carrying out preliminary research into the interviewee's personal history and background. Students engage in background research that includes employment, education, financial, and criminal records. Legal issues regarding gathering, maintaining and disclosing information obtained during the investigation is presented, as well as the law governing self-incrimination and providing warnings during interviews. Students learn to differentiate among various types of interviewing, including interviewing neutral witnesses, hostile witnesses, and subjects of investigations. Students prepare reports using analytical techniques that allow them to reach coherent, defensible conclusion.

FSINV 605 Investigative Techniques/Physical Evidence (3 credits)

Examines how to gather physical and documentary evidence, such as accounting documents and digital records, from persons of interest and to prepare reports of investigation and oral presentations. Students learn the importance of planning thoroughly before gathering evidence, by conducting preliminary research into the record system to be examined. Legal issues regarding gathering, maintaining and disclosing information, as well as the law controlling privacy and search and seizure are presented. Students learn how to properly record evidence and maintain a chain of custody. Students prepare reports using analytical techniques that allow them to reach coherent, defensible conclusions.

FSLAW 602 Criminology (3 credits)

Provides students with the opportunity to examine crime, criminals, the law, criminal behavior, and other social processes involved in crime causation. Emphasis is placed on the role of crime as a social phenomenon, the nature of criminal law, and related matters of crime in modern society. Students will examine criminological theories and their impact on policy formation in the criminal justice arena as well as examine scholarly criminological research for use in supportive analysis of theory and policy in the criminal justice arena.

FSLAW 668 – White Collar Crimes (3 credits)

Includes a review and analysis of the general principles of white collar criminal prosecution and defense, including jurisdiction of various federal criminal law enforcement and prosecutorial agencies; corporate and other business crimes; fraud and political corruption crimes (mail fraud, bank fraud, and crimes involving bribery of public officials); conspiracy; financial and securities fraud; tax fraud; RICO; currency reporting crime and money laundering; regulatory crimes in the health and environmental areas; crimes involving the protection of federal rights and functions (perjury statutes, obstruction of justice, and witness tampering); and sanctions, including the Federal Sentencing Guidelines and the use of minimum mandatory sentences.

FSIS 664 – Mobile Device Forensics (3 credits)

Explores the growing field of cellular technologies from both network architecture and hand-held device perspectives. This course will provide details regarding the type and manner of data that can be forensically obtained from mobile devices, including call logs, text messages, address books, photos, videos, and Internet history. Exercises focus on using accepted forensic procedures to acquire and analyze data from a variety of mobile devices. Students will generate analytical reports and cross reference results with data from network service providers. The course will use leading-edge tools from Paraben Corporation and Cellebrite Mobile Synchronization. The course is offered online but students are required to attend an 8-hour on-site class.

Program Requirements:

- Maintain a 3.0 GPA
- Complete 36 credit hours in the Master of Science program

2. *Describe the educational objectives and intended student learning outcomes.*

Upon completion of the Master of Forensic Science, graduates will be able to:

1. Process forensic evidence and report findings in an ethical manner.
2. Communicate those findings in both written and oral formats.
3. Apply the quality assurance, quality control, and safety requirements used in accredited forensic science laboratories.
4. Develop a comprehensive analysis of the scientific literature on a topic.
5. Formulate a hypothesis, design, and execute a research project.
6. Develop a thesis that reflects the results of the research project; explains those results; and formulates novel suggestions for further study.
7. Participate in mock judicial examinations.

Upon completion of the MFS Area of Concentration in Forensic Biology, students will be able to:

1. Examine the science underlying DNA analysis.
2. Describe how DNA is analyzed.
3. Analyze serological evidence.
4. Analyze immunological evidence.

Upon completion of the MFS Area of Concentration in Forensic Chemistry, students will be able to:

1. Examine the science underlying chemical analysis.
 2. Describe the toxicology and analytical chemistry relevant to isolating and identifying drugs and toxic substances.
 3. Analyze chemical evidence.
 4. Analyze trace evidence.
3. *Discuss how general education requirements will be met, if applicable.*

Not applicable

4. *Identify any specialized accreditation or graduate certification requirements for the program and its students.*

Not applicable

5. *If contracting with another institution or non-collegiate organization, provide a copy of the written contract.*

Not applicable

H. Adequacy of Articulation

If applicable, discuss how the program supports articulation with programs at partner institutions.

Not applicable

I. Adequacy of faculty resources (as outlined in COMAR 13B.02.03.11).

Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faculty member will teach.

During the implementation of the degree program, the expectation is that full-time faculty along with practicing professionals in the forensic science field will provide expertise as faculty. As enrollments grow, new faculty with credentials appropriate to the degree program will be hired. See the table below for a summary list of faculty currently employed by Stevenson University with appropriate credentials to teach in the proposed program.

Thomas D. Coogan, J.D., Associate Dean and Professor of Forensic Studies in the School of Graduate and Professional Studies at Stevenson University, will oversee the development of the Forensic Accounting program. Mr. Coogan has over twenty-five years of teaching and progressive academic leadership experience. He received his J.D. from Antioch School of Law and earned his M.A. in Forensic Science at Antioch College. Mr. Coogan was named a Fulbright Scholar by the U.S. Department of State to teach at the Institute of Criminology at the University of Malta. Mr. Coogan has experience working in law enforcement with the U.S. Secret Service and U.S. Department of Justice. He has held executive positions with the Federal Deposit Insurance Corporation, U.S. Postal Service, and Legal Services Corporation.

John (Jay) Tobin, Ph.D., Associate Professor of Forensic Science, will serve as the Program Coordinator. Dr. Tobin earned his Ph.D. from the University of Maryland, Baltimore. He is the former Director of the Forensic Sciences Division at the Maryland Department of State Police and has more than 38 years of experience in forensic science. Dr. Tobin has served as a member of the Maryland Forensic Science Advisory Board and as an advisor to the Secretary of the Department of Maryland State Police.

Summary of Current Faculty

Name	Academic Degree	Academic Title/Rank	Status	Courses
Thomas D. Coogan	J.D., Antioch School of Law; M.A. Forensic Science, Antioch College	Associate Dean Professor, Forensics	Full-time	FSCI 701, FSINV 600, FSLAW 668
Joyce K. Becker	J.D., University of Maryland, Baltimore	Dean Professor, Law	Full-time	FSCI 701, FSLAW 668
Dean E. Cook	Ph.D., University of Missouri	Professor, Information Systems	Full-time	FSIS 664
Steven R. Engorn	MBA, Loyola University Maryland	Assistant Professor, Information Systems	Full-time	FSIS 620
Maria Howell	J.D., University of Maryland, Baltimore	Professor, Forensic Studies	Full-time	FSCI 701
Carolyn H. Johnson	J.D., University of Maryland, Baltimore	Professor, Forensic Studies	Full-time	FSCI 701
Sue A. Schenning	J.D., University of Baltimore	Associate Professor, Forensic Studies	Full-time	FSCI 701, FSLAW 668

John "Jay" Tobin	Ph.D., University of Maryland, Baltimore	Program Coordinator Associate Professor, Forensic Science	Full-time	FSCI 500, FSCI 615, FSCI 617, FSCI 620, FSCI 655, FSCI 670, FSCI 675, FSCI 702, FSCI 760, FSCI 761
Damon Burman	M.F.S. George Washington University	Adjunct Professor, Forensic Science	Adjunct	FSCI 645
Thomas Byrd	J.D., Loyola University of Chicago School of Law; M.S., Illinois Institute of Technology	Program Coordinator and Adjunct Professor, Cyberforensics	Adjunct	FSIS 664
Emmet Davitt	J.D., University of Maryland, Baltimore	Adjunct Professor, Forensic Studies	Adjunct	FSLAW 668
John Grimes	M.S., Stevenson University	Adjunct Instructor, Forensic Studies	Adjunct	FSINV 600
Barry Grzechowiak	M.S., Stevenson University	Adjunct Instructor, Forensic Studies	Adjunct	FSINV 600
Jason Kolowski	Ph.D., City University of New York	Adjunct Professor, Forensic Science	Adjunct	FSCI 632, FSCI 640
Barry Levine	Ph.D., University of Maryland, Baltimore	Adjunct Professor, Forensic Science	Adjunct	FSCI 670
Irvin B. Litofsky	M.S.F.S., George Washington University	Adjunct Professor, Forensic Science	Adjunct	FSCI 500, FSCI 540
Colin May	M.S., Stevenson University	Adjunct Instructor, Forensic Studies	Adjunct	FSINV 605
Gerald Maye	MPPM, Birmingham Southern College	Adjunct Instructor, Forensic Studies	Adjunct	FSAAC 620
Steven O'Dell	M.S., University of Alabama at Birmingham M.B.A., University of Phoenix	Adjunct Professor, Forensic Science	Adjunct	FSCI 610, FSCI 615
Lynnett Redhead	M.S., Towson University	Adjunct Instructor, Forensic Science	Adjunct	FSCI 660
Michael Robinson	M.S. University of Maryland University College M.S., Stevenson University	Adjunct Professor, Cyber Forensics and Forensic Studies	Adjunct	FSAAC 620, FSAAC 664
Richard West	J.D., Northwestern University	Adjunct Professor, Forensic Studies	Adjunct	FSLAW 668
Carrie Wise	M.S., Stevenson University	Adjunct Instructor, Forensic Science	Adjunct	FSCI 617, FSCI 630

Joyce Zerhusen	M.A., University of Baltimore	Adjunct Professor, Forensic Studies	Adjunct	FSLAW 602
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J. Adequacy of library resources (as outlined in COMAR 13B.02.03.12).

Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program.

The Stevenson University library physical collection is maintained in the Learning Resource Center building on the Greenspring Campus and in the library facilities located in the School of Business and Leadership and in the Kevin J. Manning Academic Center located on the Owings Mills Campus. The physical collections continue to grow, now approaching 100,000 volumes. Many formats are represented, among them DVD's, video recordings, CDs, audiotapes, microfilms, microfiche, CD-ROMs, web-based services, books and periodicals. Library holdings reflect the University's curriculum. The library also participates in the Maryland Digital Library Project and in the AskUsNow Reference Service with other Maryland libraries.

The library provides access to the collections via an integrated, web-based online catalog shared with partners in the Maryland Interlibrary Consortium, whose collections total approximately 800,000 volumes. The interlibrary loan program uses a dedicated courier service which facilitates sharing among the campuses. In addition, students have borrowing privileges through Stevenson's partnership with the Baltimore Area Library Consortium (BALC) and MICUA Consortia.

To support the distance education students, the library offers several electronic services. The library subscribes to 60 databases, approximately 26,000 electronic journals, and over 70,000 electronic books. Electronic media, book, and article searches are available, along with a full-text e-journal locator. Several research tutorials are available, along with research guides and Noodlebib, a program that helps with citations. "Ask us now!" is particularly helpful to students who are not located on campus. This provides access to a librarian's assistance 24 hours/seven days a week.

The library currently subscribes to the following online databases relevant to the proposed program:

Forensics databases (12)	LexisNexis
Biology databases (9)	SocINDEX with Full Text
Chemistry databases (10)	Wall Street Journal (ProQuest)
Biotechnology databases (9)	CSE Manual for Authors, Editors, and Publishers.
FORENSICnetBASE	eBook Academic Collection (EBSCOhost)
ScienceDirect College Edition	JoVE (Journal of Visualized Experiments)
ACS Publications	Medline with Full Text
PubMed	ACS Style Guide: Effective communication of scientific information
Journal of Forensic Sciences	SciFinder
OneSearch	Hoover's
Criminal Justice Abstracts in Full Text	Value Line Investment Survey
ebrary Electronic Books	
Business Source Complete	

The library has been strongly supporting the graduate forensics degrees for many years both on-site and online. Books, periodicals, electronic materials, and online databases in these disciplines have been regularly acquired and are rapidly replaced or updated as these fields develop. The library also has received a generous donation of forensic books from the Association of Certified Fraud Examiners. Given the excellent base of materials in the library's existing collection in this area, supporting the proposed master's program does not require additional resources.

K. Adequacy of physical facilities, infrastructure and instructional equipment (as outlined in COMAR 13B.02.03.13)

Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences.

The University anticipates little or no impact on the use of existing facilities and equipment to provide this online program. Courses will not require additional classroom space or office space for faculty/staff.

The University already possesses the Blackboard course management system hardware and software to design and implement these online programs. Continual upgrades are made through service pack installations. All media or other course production equipment necessary for the development of the program is currently in place. Stevenson University has an ample infrastructure for offering the online dimension. These resources include the latest versions of the Blackboard platform, tech and tutoring support through online delivery (SMARTHINKING), and course designers who work with the faculty members who develop courses for online delivery. Currently, this administrative unit consists of three professionals with graduate degrees in the general field of educational technology, and operates under the direction of an Associate Dean with exclusive responsibility for managing the staff and technology associate with distance learning.

While the proposed program will be offered primarily online, Stevenson University has adequate facilities to accommodate any face-to-face needs.

L. Adequacy of financial resources with documentation (as outlined in COMAR 13B.02.03.14)

- 1. Complete Table 1: Resources and Table 2: Expenditures. Finance data for the first five years of program implementation are to be entered. Figures should be presented for five years and then totaled by category for each year.*

TABLE 1: RESOURCES:

Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds					
2. Tuition/Fee Revenue (c + g below)	\$428,400	\$482,850	\$553,500	\$627,750	\$720,000
a. Number of F/T Students*					
b. Annual Tuition/Fee Rate					
c. Total F/T Revenue (a x b)					
d. Number of P/T Students	34	37	41	45	50
e. Credit Hour Rate	\$700	\$725	\$750	\$775	\$800
f. Annual Credit Hour Rate**	18	18	18	18	18
g. Total P/T Revenue (d x e x f)	\$428,400	\$482,850	\$553,500	\$627,750	\$720,000
3. Grants, contracts & Other External Sources					
4. Other Sources					
TOTAL (Add 1 - 4)	\$428,400	\$482,850	\$553,500	\$627,750	\$720,000

TABLE 2: EXPENDITURES					
Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	\$179,200	\$210,944	\$217,272	\$251,763	\$288,130
a. # FTE	1.75	2.0	2.0	2.25	2.5
b. Total Salary	\$140,000	\$164,800	\$169,744	\$196,690	\$225,102
c. Total Benefits	\$39,200	\$46,144	\$47,528	\$55,073	\$63,028
2.. Admin. Staff (b + c below)	\$8,000	\$8,240	\$8,486	\$8,742	\$9,005
a. # FTE	.125	.125	.125	.125	.125
b. Total Salary	\$6,250	\$6,438	\$6,630	\$6,830	\$7,035
c. Total Benefits	\$1,750	\$1,802	\$1,856	\$1,912	\$1,970
3. Support Staff (b + c below)	\$6,400	\$6,592	\$6,790	\$6,995	\$7,203
a. #FTE	.125	.125	.125	.125	.125
b. Total Salary	\$5,000	\$5,150	\$5,305	\$5,465	\$5,628
c. Total Benefits	\$1,400	\$1,442	\$1,485	\$1,530	\$1,575
4. Equipment (Computer hardware and software)	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
5. Library					
6. New or Renovated Space					
7. Other Expenses	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TOTAL EXPENDITURES (Add 1 - 7)	\$197,100	\$229,276	\$236,048	\$271,000	\$307,838

2. *Provide a narrative rationale for each of the resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds.*

TABLE 1: RESOURCES

Reallocated Funds

Analyze the overall impact that the reallocation will have on the institution, particularly on existing programs and organizational units.

No reallocation of funds is planned as part of delivering this new academic program.

Tuition and Fee Revenue

Describe the rationale for the enrollment projections used to calculate tuition and fee revenue.

Tuition makes up most of the revenue that will be generated for the support of the program. The enrollment projection in Year 1 is based upon the actual number of students currently enrolled in the M.S. in Forensic Science Biology and Chemistry Tracks, a number that is expected to grow each year thereafter. All of these students will be part-time, as is the case with all graduate programs at Stevenson University, which makes the rate of tuition very affordable. The rate of tuition is keeping with rates competitive for the target audience. The assumption in the tuition revenue projection is that every student will enroll for 15 credits over the course of one year.

Grants and Contracts

Provide detailed information on the sources of the funding. Attach copies of documentation supporting the funding. Also, describe alternative methods of continuing to finance the program after the outside funds cease to be available.

There are no resources from grants, contracts, or other external sources that are designated for implementation of this program.

Other Sources

Provide detailed information on the sources of the funding, including supporting documentation.

No resources from other sources are necessary for the delivery of this new academic program.

Total Year

Additional explanation or comments as needed.

No additional explanations or comments are included.

TABLE 2: EXPENDITURES – NARRATIVE

Faculty

Expenditures were carefully constructed to reflect the needs of the proposed degree. Courses will be taught by full-time faculty and adjuncts who are professionals in their respective fields. An average annual salary of \$80,000 per FTE was used in Year 1 and increased by 3% in subsequent years. The FTE was increased by .25 in each of Years 2, 4, and 5 to support the anticipated growth in enrollment. Benefits were calculated at 28%.

Administrative and Support Staff

A shared position at the administrative level, devoting 12.5% of his to the program, has been allocated. Similarly, support staff will be shared with other faculty members and administrators; this budget assumes a one-eighth time equivalency devoted to the graduate degree. Salaries have been increased by 3% per year and benefits were calculated at 28%.

Equipment

Computer equipment and software have been estimated at \$2,500 per year.

Library

No new library resources will be needed for this degree.

Other

Other expenses include course development and redevelopment costs at \$1,000 per year.

M. Adequacy of provisions for evaluation of program (as outlined in COMAR 13B.02.03.15).

Discuss procedures for evaluating courses, faculty and student learning outcomes.

Programs at Stevenson are reviewed according to an established program review cycle and revised, as appropriate, to reflect the mission and vision of the University and the needs of the marketplace. The approval process for new courses requires a matrix which demonstrates alignment of course objectives with program objectives. The matrix becomes a course map, the purpose of which is to demonstrate alignment of each assignment in the course to both course objectives and program objectives. The alignment matrix and course maps are essential tools in assessing the effectiveness of the program. All programs contain a capstone experience that enables the program to observe and evaluate students' capabilities across multiple skill areas. Each program is also required to engage in a program review process every five years.

Courses are routinely monitored by program coordinators/department chairs/associate deans to ensure that best online teaching practices are being maintained by faculty including: (1) frequent faculty-to-student and student-to-student interaction; (2) prompt feedback; (3) clear expectations for completing assignments and other activities; and (4) opportunities for active learning among students. Stevenson utilizes the Quality Matters Standards rubric as a guideline for all online courses. Faculty presence in each course is monitored. Courses are managed by a course manager and instructional designer with expertise in online course development to ensure that the courses include a sequence of learning activities that students can easily navigate and a communication strategy is in place for the unexpected. Academic program coordinators/department chairs/associate deans and instructional designers ensure there is continued alignment between assignments and course objectives and faculty communicate high expectations for student performance. Finally, faculty are able to avail themselves of ongoing assistance in the performance of their responsibilities through access to the technical and academic assistance provided by the instructional design staff and academic program coordinators/department chairs/associate deans.

Assessment and documentation of student achievement of learning outcomes occurs throughout the distance education programs. Each course syllabus clearly identifies the desired learning outcomes for students. Assignments are designed so that all course outcomes are assessed, and each graded assignment is scored often using a rubric to determine if the student has demonstrated proficiency with the related outcome. Student portfolios demonstrate student mastery of outcomes across all courses in the program and are assessed using a standards-aligned rubric during the capstone course of the program.

Student course evaluations are routinely administered at the end of each session and are analyzed. Alumni are surveyed periodically to ascertain their opinions about whether they had attained the skills and knowledge required for their jobs and to provide their judgment about the strengths and areas for improvement in their program.

Faculty adhere to Quality Matters standards and to principles of best practice which include the following: (1) providing clear guidelines for student-to-student and student-to-faculty interaction; (2) creating well designed discussion assignments that facilitate meaningful dialogue among students; (3) developing student assessments which include project-based assignments to facilitate critical thinking in addition to tests and quizzes; (4) providing timely feedback; (5) providing regularly distributed deadlines to encourage course/program completion; (6) communicating high expectations; and (7) facilitating student participation in the selection of project and paper topics. Courses regularly are reviewed to ensure that they are meeting these standards.

N. Consistency with the State's minority student achievement goals (as outlined in COMAR 13B.02.03.05 and in the State Plan for Postsecondary Education).

Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.

The Stevenson University student population includes the largest number of diverse students among the private colleges and universities in Maryland. Each year approximately one-third of the entering class of first-year students qualify for federal Pell grants and are from 'educationally disadvantaged backgrounds'. In the 2015-2016 academic year, 45% of the total undergraduate population and 43% of the graduate and undergraduate part-time student population represented minority groups. The percentage of under-represented minority students in the school's graduate programs has remained consistently above 40% since 2011 (IPEDS data for Stevenson graduate programs). The diverse student population is the result of an institutional plan to recruit students from diverse backgrounds by reserving a significant percentage of institutional grants for students with need as opposed to other determinates, such as educational attainment as measured by high school grades and admissions tests.

Stevenson University has made a commitment to attracting transfer students which has increased the diversity of the student population. Specifically, one-third of the new students during each of the last two years were transfer students predominantly from the state's community colleges where the lower tuition generally attracts the most disadvantaged students. The recruitment plan of the Office of Admissions has pushed outward geographically from the historic dominance of central Maryland counties, adding another factor that accounts for the increasing diversity of the student body.

Stevenson University has among its guiding documents a diversity statement that along with its mission, vision, and values comprise the guiding principles behind all policies of the institution. In order to ensure compliance with the commitment to diversity, Stevenson University has an office of multicultural affairs that serves as a key component of its student services unit. This office is responsible for the annual diversity update submitted for publication to the Maryland Independent College & University Association (MICUA).

In December 2016, GPS held its annual Forensic Symposium that focused on diversity and inclusion attended by both current graduate students and alumni of the programs. According to Nelson Santos of the Drug Enforcement Agency, one of several speakers, forensics used to be

a male-dominated profession; however, in recent years, organizations have begun to embrace and support diversity in the workplace. All speakers agreed the proper avenue to address these challenges is through education. Through education and training, employees have the greatest potential to understand that diversity and inclusion practices enhance the performance of an organization. Speakers concluded that diversity in the forensics workplace cannot be forced - it requires education.

Goal 3 of the Maryland State Plan for Postsecondary Education is to "Ensure equal opportunity for Maryland's diverse citizenry." The proposed program is consistent with and promotes this plan and the School's commitment to inclusion and diversity among its student, faculty and staff.

O. Relationship to low productivity programs identified by the Commission:

If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.

This section is not applicable to private institutions.

P. If proposing a distance education program, please provide evidence of the Principles of Good Practice (as outlined in COMAR 13B.02.03.22C).

Curriculum and Instruction:

1. A distance education program shall be established and overseen by qualified faculty.

Stevenson University distance education programs are developed and overseen by faculty members specifically selected for their subject matter expertise as well as their ability to teach in the online environment. All faculty members hired to teach in the online environment must participate in a faculty in-take session. During the in-take session, faculty are assessed for appropriate teaching skills and ability to interact effectively with students in the online environment through a series of Blackboard learning management system activities that include the following: (1) grading student papers; (2) responding to student discussion forums; and (3) creating an online presentation using media. Faculty are also required to participate in a subsequent online development course that includes facilitating adult learning, developing course management techniques, using grading rubrics, avoiding and recognizing plagiarism and cheating, among other topics. Only faculty who successfully complete these activities are selected to teach and develop distance education courses.

2. The program's curriculum shall be coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.

All courses in the distance education program are subject to the same design and approval process as those offered in traditional instructional formats. All courses, whether in a distance education or traditional format, are initially proposed by the academic departments. The courses are reviewed first by the academic program coordinator/department chair/associate dean and then by the dean of the school which oversees the academic department. The courses are then reviewed by the school's representative to the Academic Affairs Committee

(AAC) subcommittee of the University's Faculty Council, as well as by an AAC non-school representative; a representative from the Office of Institutional Research and Assessment; and a University librarian to ensure that the appropriate materials are available to the students. Courses are then submitted for review and approval by the Deans' Council, which is comprised of the deans from all seven schools in the University. Finally, the courses are submitted for review and approval by the AAC. The course content and student learning outcomes are identical regardless of whether a course is offered in a traditional format or a distance learning format. This thorough review process ensures the curriculum for distance education programs is coherent, cohesive and comparable in academic rigor to programs offered in traditional instructional formats.

- 3. The program shall result in learning outcomes appropriate to the rigor and breadth of the program.*

All program proposals are reviewed to ensure that the appropriate levels of the Bloom/Krathwohl taxonomies are addressed in each course in the program and for the program as a whole. All course level and program level requirements meet the standards set by the University for graduate courses and programs. All courses include learning outcomes appropriate for the course level. Programs and courses are reviewed and assessed routinely to ensure that the outcomes are being met by the students.

- 4. A program shall provide for appropriate real-time or delayed interaction between faculty and students.*

All courses in the distance education program provide appropriate student-to-faculty and student-to-student interaction. This interaction is generally asynchronous using discussion board forums, wikis, blogs, journals or interactive software. Faculty are required to provide feedback to students using these modalities. Synchronous, real-time interaction is available through the use of a variety of web appropriate methods, such as VoiceThread, BlueJeans, Google Hangouts, or Skype.

- 5. Faculty members in appropriate disciplines in collaboration with other institutional personnel shall participate in the design of courses offered through a distance education program.*

The School of Graduate and Professional Studies has three full-time instructional designers, an Associate Dean for Distance Learning, and graduate assistants as part of its educational design and technology team. The team has considerable experience and expertise on the BlackBoard course management system used to deliver distance education courses, and works with all those who have technology needs—the administrators, faculty, and students. The team also provides instructional design support to all faculty members developing and teaching distance education courses. Members of the instructional design team have received appropriate training and certifications. One of the instructional designers has received her Quality Matters Peer Review certification and her Quality Matters Institutional Review certification. The other instructional designers have Quality Matters Peer Review certification.

All faculty work with an identified Instructional designer during the entire design of courses offered through a distance education program. This collaboration continues during the instruction phase of course delivery. All courses are reviewed by the program

coordinator/department chair/associate dean in collaboration with the faculty and instructional designer. All distance education courses must be approved by the program coordinator chair/department chair/associate dean prior to being offered to students.

Role and Mission:

- 1. The program shall be consistent with the institution's mission.*

Stevenson University's mission is to provide a distinctive career-focused education and personalized environment for its students. The cornerstone of the mission is an educational experience that supports career planning while encompassing liberal arts, science, and technology. The University meets students where they are and supports and challenges them to become reflective and accomplished individuals committed to a lifetime of learning and contribution. Students graduate with the competence and confidence needed to address creatively the opportunities and problems facing their communities, the nation, and the world. The proposed program fulfills the University's mission.

- 2. Review and approval processes shall ensure the appropriateness of the technology being used to meet a program's objectives.*

All course and program objectives are reviewed and approved by the Academic Affairs Committee. Once the program and course objectives have been approved, the technology that will best facilitate student attainment of the objectives is selected by the faculty and instructional designer collaboratively. The instructional design staff are well trained to ensure that appropriate technology or tools are selected.

Faculty Support:

- 1. An institution shall provide for training for faculty with the use of technology, including training in the learning management system and the pedagogy of distance education.*

All faculty have access to the training opportunities routinely provided by the instructional design staff of GPS. The schedule for faculty professional development includes training in the use of available technologies for enhancing online and face-to-face instruction and use of Blackboard at both a beginner and advanced level. Individual appointments with instructional design staff are also encouraged. Twice yearly GPS offers professional development seminars for faculty related to andragogy and the best practices for teaching adult students. The School of Graduate and Professional students maintains a faculty professional development website for faculty to access webinars and virtual trainings related to andragogy and the best practices for teaching adult students. Once a semester faculty meetings are held using a virtual meeting software BlueJeans and recordings of the meetings are posted and made available for faculty. Additionally, the instructional design team maintains a faculty resources website with links to webinars and other resources related to instructional methods and technology and best practices for using the LMS.

- 2. Principles of best practice for teaching shall be developed and maintained by the faculty.*

Faculty adhere to Quality Matters standards and to principles of best practice which include the following: (1) providing clear guidelines for student-to-student and student-to-faculty interaction; (2) creating well designed discussion assignments that facilitate meaningful dialogue among students; (3) developing student assessments which include project-based assignments to

facilitate critical thinking in addition to tests and quizzes; (4) providing timely feedback; (5) providing regularly distributed deadlines to encourage course/program completion; (6) communicating high expectations; and (7) facilitating student participation in selection of project and paper topics. Courses are regularly reviewed to ensure that they are meeting these standards.

- 3. An institution shall provide faculty support services specifically related to teaching in a distance education format.*

Faculty are provided support specifically related to teaching in a distance education format throughout their entire time of teaching for Stevenson University. As noted above, prior to teaching a distance education course, faculty are required to participate in an online faculty development course. In addition, faculty attend twice annual meetings which are held virtually to accommodate faculty who live out-of-state or are otherwise unable to come to campus.

Continuing professional development workshops from a variety of local and national organizations are made available to the faculty to improve their teaching effectiveness in an online environment. Sessions are a mix of synchronous and asynchronous and are made available on the GPS Faculty Development site and on the Faculty Resources site in Blackboard. Workshop topics have included the following: (1) Introduction to Blackboard; (2) Advanced Blackboard Training; (3) Use of the Grade Center; (4) Facilitating Discussion Boards; (5) How Interaction Aids Learning; (6) Developing Accelerated Online Courses; (7) Best Practices in Accelerating Courses; (8) Available Technologies to Facilitate Online Learning; (9) Teaching a Course You Did Not Develop; and (10) Working with Master Courses. Each workshop is evaluated.

Appropriate learning resources shall be available to students, including appropriate and adequate library services and resources.

Students and Student Services:

- 1. A distance education program shall provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services, financial aid resources, and costs and payment policies.*

Students receive information about curriculum, course and degree requirements from both admissions personnel and the student support coordinator assigned to the degree program. WebXpress is the online system that allows Stevenson University applicants, students, and faculty to access multiple online resources. With WebXpress, prospective students can check on the status of their application. Current students have access to class schedules, status of accounts, grades, degree audit forms and registration. Faculty can monitor rosters and post grades.

Technical equipment requirements are made known to students through information provided to them during the admissions process and again at orientation. A special browser checker is available to help students assess that their computer is up-to-date and appropriately equipped. Each course syllabus also outlines technical requirements for taking the online course and also

indicates any additional software or hardware that may be necessary for successful student performance.

Student support is provided for BlackBoard, the University's learning management system. Tech Connection, the University's technology support group, provides technical support to students experiencing difficulties with computer related issues. Faculty and instructional design staff assist students with academic issues related to online courses.

The Stevenson University website offers a convenient way to find information related to the University, including financial aid, costs and payment policies, and federally required complaint policies. The website includes links to various units and to academic support services. Website revisions are ongoing in an attempt to remain current, and the Stevenson portal (intranet) provides enrolled students and faculty ways to improve communications and information sharing. There is a student support page associated with the University's School of Graduate and Professional Studies webpage that houses links to academic and student support services specific to the needs of online adult learners.

- 2. Enrolled students shall have reasonable and adequate access to the range of student services to support their distance education activities.*

Library Facilities

The Stevenson University Library, established in 1971, is maintained in the Learning Resource Center building on the Greenspring Campus, in the library facility located in the School of Business and Leadership and in the Kevin J. Manning Academic Center located on the Owings Mills Campus. The physical collections continue to grow, now approaching 100,000 volumes. Many formats are represented, among them DVD's, video recordings, CDs, audiotapes, microfilms, microfiche, CD-ROMs, web-based services, books and periodicals. Library holdings reflect the University's curriculum. The library also participates in the Maryland Digital Library Project and in the AskUsNow Reference Service with other Maryland libraries. *AskUsNow* is particularly helpful to students not located on campus and provides 24/7 access to librarian assistance.

The library provides access to the collections via an integrated, web-based online catalog shared with partners in the Maryland Interlibrary Consortium, whose collections total approximately 800,000 volumes. The interlibrary loan program uses a dedicated courier service that facilitates sharing among the campuses.

To support the distance education students, the library offers several electronic services: Electronic media, book, and article searches are available, along with a full-text e-journal locator. Several research tutorials are available, along with research guides and *Noodlebib*, a program that helps with citations. "Ask us now!" is particularly helpful to students who are not located on campus. This provides access to a librarian's assistance 24 hours/ seven days a week.

Admissions

Students are provided recruitment and admission information through various means. Admissions information is available on the Stevenson University GPS website. Information sessions are held through the year both face-to-face and online. Finally, an enrollment counselor specifically assigned to the program facilitates face-to-face meetings and is available

to communicate with students via telephone or email. Students are able to complete either an online or paper application. The Transcript Evaluator for GPS provides services such as transcript and credit evaluations using ARTSYS.

Financial Aid/Student Accounts

Scholarships, grants, and loans are available to students. Financial aid information is provided to prospective students throughout the admissions process. To apply, students must complete the Free Application for Federal Student Aid (FAFSA). Student-specific information relating to financial aid awards is available through WebXpress. General information relating to financial aid is available on the website.

Students have the ability to view and print their bills online through WebXpress. Information regarding payment and refund policies are on the University's website and are provided to students in their orientation packets. Students are able to make payments online through WebXpress, by telephone or through the mail by means of check, money order or credit card. Students have access through the website or by telephone to the University's Student Solution Center, a financial aid/student accounts advisory office, to answer questions and solve problems.

Registration

Students register for classes online through WebXpress. A student success coach is available by telephone and email to help students with registration.

Orientation

Accepted students are sent an orientation packet through the mail. In addition, an orientation session both face-to-face and online is held at the beginning of each session for new students.

Advising

Each student is assigned to a student success coach who monitors degree or certificate completion progress and retention. Academic advising is in person, by telephone or online. Online advising occurs through the University's email system. The University has obtained the necessary modules to implement E-Advising through its Colleague System, a component of Datatel. Once fully implemented, this system will be used for online advising.

Access to Academic Services

Stevenson is organized to connect students to the resources they need to succeed. Admissions practices seek to recruit, admit, and enroll students whose interests and abilities are congruent with the University's mission and diversity statements. Student support services aim to develop students' strengths and meet their current and developing needs. These areas share the goals of retaining students in the Stevenson community while preparing them for future careers.

Online tutoring is accessible through SMARTHINKING Online tutoring services are available to students through a variety of means including one-on-one live online tutoring sessions, drop-in tutoring sessions, scheduled tutoring sessions, or through submission of writing assignments for feedback. Students can access these online tutoring activities from any computer facilities available to them.

The College's unique Career Architecture ProgramSM guides students in devising a personalized career plan based on their values, interests, strengths and weaknesses. Students are also provided career services such as resume critiques, job search assistance, mock interviews, career assessment tools, career counseling, and graduate or professional school preparation. Career workshops are regularly held for students, both on-site and online. A dedicated industry specialist is available to assist students in distance education programs. Career counseling is available to students both in-person and via the web using interactive collaborative software. This mission has consistently achieved noteworthy success, with at least 92 percent of Stevenson's graduates every year in the past five years securing employment or continuing their education within six months of graduation. All these services are available to students in the distance education program.

- 3. Accepted students shall have the background, knowledge, and technical skills needed to undertake a distance education program.*

All programs adhere to specific admissions requirements in order to ensure that accepted students have the background and knowledge needed to undertake and be successful in a distance education program. In addition, all accepted students are required to take part in online orientation using the Blackboard learning management system designed to introduce them to Stevenson University.

- 4. Advertising, recruiting, and admissions materials clearly and accurately represent the program and services available.*

All electronic and print advertising, recruiting, and admissions materials clearly and accurately represent the program and services available. The admissions and recruitment staff are all extremely knowledgeable about the programs. All materials are reviewed by program coordinator/department chair/associate dean and the school dean before dissemination and list clearly the program, admissions requirements and contact information.

Commitment to Support

- 1. Policies for faculty shall include appropriate consideration of teaching and scholarly activities related to distance education programs.*

Faculty evaluation policies do not distinguish between teaching in a distance education program and in a traditional program. All faculty are evaluated based on the following criteria: (1) teaching effectiveness; (2) scholarship; and (3) service.

All courses are evaluated regardless of modality. Faculty are expected to reflect on the feedback received, using the *Faculty Response to Evaluation* form, which is submitted to the appropriate program coordinator. However, the evaluation instruments are modified to take into account the differences in delivery methods.

- 2. An institution shall demonstrate commitment to ongoing support, both financial and technical, and to a continuation of a program for a period sufficient to enable students to complete the degree or certificate.*

Stevenson University is committed to its online programs. Both financial and technical support has been continually provided since 2006 when the University offered its first distance education program. The level of support has steadily increased over the years. The University fully funds the Blackboard™ servers and routinely upgrades its programs and services in support of the online programs. The University will be moving to a SASS hosted model during 2017-2018. A dedicated Blackboard™ IT technician is identified and the instructional design team expanded its staff and scope of operation over the last three years. Student success coaches, advisers, and other staff members assist in re-enrollment and retention services to enable students to complete their program.

Evaluation and Assessment:

- 1. An institution shall evaluate a program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.*

Programs at Stevenson are reviewed according to an established program review cycle and revised, as appropriate, to reflect the mission and vision of the University and the needs of the marketplace. The approval process for new courses requires a matrix which demonstrates alignment of course objectives with program objectives. The matrix becomes a course map, the purpose of which is to demonstrate alignment of each assignment in the course to both course objectives and program objectives. The alignment matrix and course maps are essential tools in assessing the effectiveness of the program. All programs contain a capstone experience that enables the program to observe and evaluate students' capabilities across multiple skill areas. Each program is also required to engage in a program review process every five years.

The student success coaches and other members of the student success team focus on student retention. Each new student in a distance education program receives a telephone call from a member of the team during each of their first three courses at Stevenson. The purpose of this call is to ensure students are satisfied with their experience at Stevenson and are not experiencing any difficulties in successfully completing their coursework. Data have shown that students who successfully complete their first three courses are likely to complete their degree program. Thereafter, the student success coaches are available to assist students with any questions or concerns. In addition, as part of the retention efforts, the student success coaches follow up with students who have not registered for subsequent sessions.

- 2. An institution shall demonstrate an evidence-based approach to best online teaching practices.*

Courses are routinely monitored by program coordinators/department chairs/associate deans to ensure that best online teaching practices are being maintained by faculty including: (1) frequent faculty-to-student and student-to-student interaction; (2) prompt feedback; (3) clear expectations for completing assignments and other activities; and (4) opportunities for active learning among students. Stevenson utilizes the Quality Matters Standards rubric as a guideline for all online courses. Faculty presence in each course is monitored. Courses are managed by a course manager and instructional designer with expertise in online course development to ensure that the courses include a sequence of learning activities that students can easily navigate and a communication strategy is in place for the unexpected. Academic program coordinators/department chairs/associate deans and instructional designers ensure there is continued alignment between assignments and course objectives and faculty communicate high

expectations for student performance. Finally, faculty are able to avail themselves of ongoing assistance in the performance of their responsibilities through access to the technical and academic assistance provided by the instructional design staff and academic program coordinators/department chairs/associate deans.

3. An institution shall provide for assessment and documentation of student achievement of learning outcomes in a distance education program.

Assessment and documentation of student achievement of learning outcomes occurs throughout the distance education programs. Each course syllabus clearly identifies the desired learning outcomes for candidates. Assignments are designed so that all course outcomes are assessed, and each graded assignment is scored using a rubric to determine if student has demonstrated proficiency with the related outcome. Student portfolios demonstrate student mastery of outcomes across all courses in the program and is assessed using a standards-aligned rubric during the capstone course of the program.

Student course evaluations are routinely administered at the end of each session and are analyzed. Alumni are surveyed periodically to ascertain their opinions about whether they had attained the skills and knowledge required for their jobs and to provide their judgment about the strengths and areas for improvement in their programs.