

### **ACADEMIC PROGRAM PROPOSAL FORM**

(Revised May 2014)

**DIRECTIONS**: Use this form when proposing a new major or primary field of study, new emphasis, or new degree program.

DATE SUDMITTED:	Date of AAC Approval:							
INSTITUTION: UNLV	September 7, 2016							
REQUEST TYPE:	<ul><li> □ New Degree</li><li> ☑ New Major or Primary Field of Study</li><li> □ New Emphasis</li></ul>	Date of Board Approval:						
<b>DEGREE</b> (i.e. Bachelor of Science): Master of Science								
MAJOR (i.e. Animal So	cience): Data Analytics and Applied Economics							
EMPHASIS (i.e. Equine Studies): Management Information Systems and Economics								
CREDITS TO DEGRE	<b>EE:</b> 36							
PROPOSED SEMESTER OF IMPLEMENTATION: Spring 2017								
Action requested: New MS Program Appro	oval							

### A. Brief description and purpose of proposed program

DATE CUDMITTED, Inl. 6 2016

The MS in Data Analytics and Applied Economics combines skills in programming, data gathering, and data management from courses in the Lee Business School's (LBS), Management Entrepreneurship and Technology (MET) department, with skills in economic reasoning and statistical analysis skills taught in graduate-level Economics courses. The program will attract students with focused career choices that require core competence in programming and constructing data systems with analytical and statistical skills. It also prepares students preparing for a career as data scientists.

The economics portion of the joint degree advances students' knowledge in economic theory. It also provides students with skills associated with advanced statistical and econometric analysis, and helps students develop their communication skills. The MET portion of the joint degree is designed to equip graduate students with a solid foundation in programming, building data management systems, and data mining.

The program will be governed by a joint committee with members from the MET and Economics departments, with the graduate coordinators of the two departments as co-chairs.

### B. Statement of degree or program objectives

Upon completion of the degree, graduates will have a solid foundation and training in advanced economic modeling, statistical and econometric analysis, and the theory and application of programming, building data management systems, and data mining.

#### C. Plan for assessment of degree or program objectives

Assessment plans for the degree program will follow already established assessment procedures currently in place for the MA program in Applied Economics and MS program in Management Information Systems. The program will be assessed according to the following program objectives:

- 1. Think critically.
- 2. Apply economic models to business problems.
- 3. Analyze data with advanced statistical and econometric techniques.
- 4. Learn and employ techniques of big data analysis to inform business strategy.
- 5. Apply computer programing and computing software to analysis of data..
- 6. Communicate effectively.

## D. Plan for assessment of student learning outcomes and the use of this data for program improvement

The governing committee will establish a learning assessment tool that combines the assessment approaches already in place for the MS in Management Information Systems (MIS) and the MA in Economics.

Assessment results will be shared within the Lee Business School and, in particular, between the MIS and Economics Departments.

Annual review of the assessment by the coordinators will identify any deficiencies or trends that need to be corrected. Identified action will then be directed by the co-chairs of this program to the respective courses where the deemed intervention is needed.

#### E. Contribution and relationship of program objectives to

#### i. NSHE Master Plan

The Master of Science in Data Analytics and Applied Economics furthers the goal of the NSHE Master Plan by developing a program that provides students with specific skills and training the combination of which is not currently offered in Nevada. The degree provides an opportunity for students to succeed in fields such as management information systems, economics, data mining, finance, marketing analytics, human resource analytics, and other related areas. Currently private and public sector employers often recruit professionals in such areas from outside the state to fill the growing demand for employees with these skill sets.

#### ii. Institutional mission

The Master of Science in Data Analytics and Applied Economics combines the knowledge of management information systems with training in advanced economic modeling and statistical/econometric analysis. The degree contributes to UNLV's mission of concentrating on programs that are student centered, demonstrably excellent, and responsive to the needs of the

local and regional community. It serves the institutional mission of encouraging innovative and interdisciplinary approaches to teaching, learning, and scholarship. The degree also serves the community by using an interdisciplinary approach to fill an unmet need.

Specifically, the program will contribute towards UNLV's new strategic institutional goals for the Top Tier program (i.e., #1 Become more student focused, #3 Increase research, scholarly activity, and national recognition, and #4 Grow selectively, serve the region, and achieve distinction). It is a student-centered program, and it enhances interdisciplinary research and scholarship. Furthermore, it will contribute to national recognition for UNLV. The program will attract a diverse and talented pool of students to serve the increasing demand for skilled workers in our region.

#### iii. Campus strategic plan and/or academic master plan

The Master of Science in Data Analytics and Applied Economics would not require new resources. Most courses are currently offered by the M.S. degree in MIS and the M.A. degree in Economics programs on a regular basis.

The program will enhance UNLV's relationship with the community in both public and private sectors by equipping workers with valuable skills in MIS and economics. Graduates of the program will be placed in high-level analytical and managerial positions supporting executives making decisions about their organizations. We expect that these graduates will create internships and job opportunities for other graduates from UNLV's undergraduate programs. In the future, they will be potential donors to the university.

#### iv. Department and college plan

See attached file Lee Business School Strategic Plan

### v. Other programs in the institution

There is no other similar graduate program at UNLV.

#### vi. Other related programs in the System

There is no other similar graduate program in the System.

#### F. Evaluation of need for the program

#### i. Intrinsic academic value of program within the discipline

The Master of Science in Data Analytics and Applied Economics degree provides skills for students that emphasize critical thinking, data management, economic reasoning, and statistical modeling. These skills are in demand in the private and public sectors.

# ii. Evidence of existing or projected local, state, regional, national and/or international need for program

We operate in a global environment. Increasingly, many tasks in the private and public sectors require data management and analysis. For both tasks, analytical skills are essential. Examples include marketing and human resource analytics in the private sector and economic regulation & policy design in the public sector. The proposed program, built on a core of knowledge and practice taught in MIS and economics, emphasizes skills that are great use to local businesses and the government sector. As an example, we have attached report by the McKinsey Global Institute titled "Big Data: The Next Frontier in Innovation, Competition, and Productivity."

Further evidence of need for the proposed program is provided by the Governor's Task Force on Economic Development. The task force found that UNLV is the major research university in southern Nevada. It is also an important supplier of skilled workers. As a public institution, we have the obligation to develop competent high level analysts and decision makers for local business and government. The program will provide well-trained researchers and managers to this important part of the labor force.

## iii. If this or a similar program already exists within the System, what is the justification for this addition

No similar program exists within the System.

### iv. Evidence of employment opportunities for graduates (state and national)

Graduates of this program will find positions in industries and government institutions nationwide as the students in the MA Economics and MS MIS program currently do. The Master of Science in Data Analytics and Applied Economics degree will enhance the job market prospects for our graduates from the MIS and Economics programs, and better prepare others for Ph.D. programs. Both programs currently place students, and this would allow our students in this program to be placed with institutions that require both skillsets. Big data and data analytics is a growing field, and many new careers have been created that require these skills. According to a recent report published by Temple University http://isjobindex.com/download/, graduate students with skills in the information systems field earn salaries that are 17% higher than those with skills in other business diciplines. This same report shows that six months after graduation, the placement rate for such students is 94%.

### v. Student clientele to be served (Explain how the student clientele is identified)

We expect that the initial demand for the program will come from students who are current candidates for the MS MIS and MA Economics at UNLV. Over time, however, we expect the degree will attract a wider clientele. Once we become established, we expect to receive applications from California, the rest of the Southwest, and beyond.

#### G. Detailed curriculum proposal

## i. Representative course of study by year (options, courses to be used with/without modification; new courses to be developed)

Program requirements

A minimum of 36 credits of course work is required from the degree with a GPA of at least 3.00 is required for the graduate course work that is part of the degree program. The following specific requirements must be met:

Required Courses

MIS 740 - Software Concepts

MIS 671 - Big Data

MIS 766 - Data Management

MIS 768 – Java Programming

MIS 776 - Business Intelligence and Data Mining

ECO 702, Microeconomic Theory

ECO 770, Econometrics I, Statistical Modeling

ECO 772, Econometrics II

ECO 773, Forecasting

Electives: 6 Credits

Any 600 / 700 level courses in ECON or MIS

Other courses upon approval of both Graduates Coordinators in the ECON and MIS programs, which serve as co-chairs for this program

Culminating Experience: Choose one of the following

ECO 794 Professional Paper

MIS 781 Client Project

Course descriptions for MIS Core Requirements:

MIS 740 3 credits

**Software Concepts** 

First course in programming for non-programmers aimed at developing a proficiency in designing and writing programs using a high-level programming language. Topics include standard programming constructs (conditionals, loops, etc.), concept of an algorithm, and fundamental data types (numbers, strings, arrays, etc.).

MIS 671 3 credits

Big Data

Introduction to big data concepts, tools and methods. Students will be exposed to big data principles as well as learn about information technology innovation in organizations. Students will also be introduced to multiple tools and statistical concepts related to the contemporary analysis of big data.

MIS 766 3 credits

Data Management

Concepts, principles, issues and techniques for managing corporate data resources. Techniques for managing design and development of large database systems including logical data models, concurrent processing, data distribution, database administration, data warehousing, data cleansing, and data mining.

MIS 768 3 credits

**Java Programming** 

Java programming language, platform, software delivery environment, internet commerce environment, applications vs. applets/services, Java APIs and extensions, paradigms in information systems, network computers, security and future directions.

MIS 776 3 credits

Business Intelligence and Data Mining

Business intelligence refers to the set of technologies and tools that enable organizations to integrate, store, analyze, and report data for the purpose of obtaining competitive advantage. Students will be exposed to key components of business intelligence applications, including defining data structure, analyzing cubes, data mining, and reporting.

Course descriptions for Economics Core Requirements:

ECO 702 3 credits

Microeconomic Theory

Use quantitative and graphic techniques to analyze household and firm decisions as a basis for market interactions. Topics include the determinants of demand and supply, price and output determination under perfect and imperfect competition, economic efficiency, income distribution, general equilibrium, and economic welfare. Prerequisites MATH 181 or a semester of calculus from another institution

ECO 770 3 credits

Econometrics I, Statistical Modeling

The course reviews fundamentals of mathematical statistics, that are used in econometric analysis. It integrates mathematical models and statistical techniques to perform regression analysis of cross-sectional data with a policy focus. Topics include empirical model building, estimation, and specification and data problems. It involves extensive use of computer software packages. Prerequisites MATH 181 or a semester of calculus from another institution

ECO 772 3 credits

**Econometrics II** 

Building on econometrics I, this course extends econometric/quantitative skills in the estimation and testing of economic theory. Topics include instrumental variables and two stage least squares estimations, simultaneous equation models, qualitative dependent variable models and sample selection corrections, measurement error issues, introduction to time series and panel data methods. Prerequisites Graduate standing and ECO 770.

ECO 773 3 credits

Econometrics II

**Business and Economic Forecasting** 

Evaluation of the uses and misuses of forecasting techniques in economics, business and governmental decision making. Exploration of techniques of data handling including exponential smoothing, seasonal and cyclical adjustments. Use of simple and multiple regression models and advanced econometric techniques in forecasting. Nature and estimation of autoregressive moving average (ARIMA) models.

Culminating Experience:

ECO 794 3 credits

Professional Paper

Directed research under the supervision of a member of the graduate faculty, culminating in a professional paper that will be presented to the student's professional-paper committee. Students will participate in a weekly seminar, presenting results of their research. Students who do not complete a professional paper will receive a temporary grade of "X".

MIS 781 3 credits

Client Project

Provide a culminating experience for MIS students to provide a practical application of concepts learned in the program. Reinforcement will be placed upon client and expectation management, proposal writing and professional communication.

Course descriptions of elective courses:

See UNLV Graduate Catalog for all electives under Management Information Systems and Economics. The choice of electives depends on the availability of course offerings by each department.

#### ii. Program entrance requirements

Admission to the Master of Science in Data Analytics and Applied Economics

Students must:

- 1. Meet the general requirements for admission to graduate instruction at the University of Nevada, Las Vegas, as described by the Graduate College.
- 2. Complete the prerequisite preparation in intermediate microeconomic theory (ECON-502 or equivalent), statistical analysis (ECON-262 or ECON 441 or equivalent), plus at least one semester of calculus.
- 3. Meet admissions requirements of the Graduate College of UNLV regarding the TOEFL or other equivalent certifications of English fluency.
- 4. Obtain a minimum of 550 on the GMAT or equivalent on the GRE.
- 5. International students must submit a completed Certificate of Finance to the Office of International Students & Scholars. In addition, international applicants must satisfy the financial eligibility requirements before an I-20 will be issued.
- 6. Complete Graduate College application online and submit a nonrefundable admission application fee. Mail official transcripts to the Graduate College. Send two letters of recommendation, letter of intent and official test scores, GRE or GMAT to the Graduate College.

## iii. Program completion requirements (credit hours, grade point average; subject matter distribution, preprogram requirements)

A minimum of 36 credits of course work is required from the degree with a GPA of at least 3.00 is required for the graduate course work that is part of the degree program.

iv. Accreditation consideration (organization (if any) which accredits program, requirements for accreditation, plan for attaining accreditation - include costs and time frame)

The Association to Advance Collegiate Schools of Business

## v. Evidence of approval by appropriate committees of the institution Routing and Approval Process:

This proposal has been routed through both the departments of Management, Entrepreneurship & Technology and Economics separately at the Lee Business School. Both departments approved this proposal with all supporting documentation on April 28<sup>th</sup>, 2016. The vote for the MET Department was 15 in favor, 1 opposed and 0 absentions. The vote for the Economics Department was 14 in favor, 0 opposed and 2 absentions.

After the approval of the two departments of Lee Business School, this proposal was routed through the Graduate College New Programs Committee and received approval there on May 2016.

#### H. Readiness to begin program

- i. Faculty strengths (specializations, teaching, research, and creative accomplishments
  Every course appears in the Graduate Catalog and is already being taught by the faculty of the
  two departments. All faculty members teaching in the MET and Economics departments have
  terminal degrees and are considered experts in their areas of their specialization.
- ii. Contribution of new program to department's existing programs (both graduate and undergraduate) and contribution to existing programs throughout the college or university. The Master of Science in Data Analytics and Applied Economics is unique as it combines the expertise and knowledge of MIS with economics and statistics. The program will provide a more holistic learning environment for graduate students. In addition, the interdisciplinary nature of the program will create opportunities for students and faculty of the two departments to interact and conduct collaborative research.

iii. Completed prior planning for the development of the program (recent hires, plans for future hires, securing of space, curricular changes, and reallocation of faculty lines)

The faculties of the MIS and Economics departments have worked on the degree program over the past several months. New faculty hires over the last several years in both departments are very technically proficient and trained at the cutting edge of their respective disciplines. Thus they are either now teaching, or will be called on to teach in the existing graduate programs of MIS and Economics.

No additional faculty or staff hires, space, curricular change, or relocation of faculty lines are needed or planned for the joint degree program.

- iv. Recommendations from prior program review and/or accreditation review teams

  Development and enhancements of graduate degree programs is one of the strategic planning goals of the Lee Business School.
- v. Organizational arrangements that must be made within the institution to accommodate the program

No additional organizational arrangement is needed.

### I. Resource Analysis

i. Proposed source of funds (enrollment-generated state funds, reallocation of existing funds, grants, other state funds)

The degree is based on already existing courses. As such, it does not require either new state funds or reallocation of existing funds.

- ii. Each new program approved must be reviewed for adequate full-time equivalent (FTE) to support the program in the fifth year. Indicate if enrollments represent 1) students formally admitted to the program, 2) declared majors in the program, or 3) course enrollments in the program.
  - a. (1) Full-time equivalent (FTE) enrollment in the Fall semester of the first, third, and fifth year.

1st Fall semester 7.5

**3rd Fall semester** 15

**5th Fall semester** 22.5

(2) Explain the methodology/assumptions used in determining projected FTE figures.

We estimate that there will be 10 students in the first year; generating 15 FTE based on 9 graduate credit hours per semester (10 students times 3 courses times 3 credits per course divided by 9 = 10.00).

The second year we estimate that there will be 10 students from the first year and 10 additional new students. In the third year we estimate that the incoming class will grow to 15.

b. (1) Unduplicated headcount in the Fall semester of the first, third, and fifth year.

1st Fall semester 10

**3rd Fall semester** 20

**5th Fall semester** 30

(2) Explain the methodology/assumptions used in determining projected headcount figures.

We estimate that there will be 10 students in the first year, 10 additional students in the second year, and 15 additional students in the third year. It is possible, however, that the actual numbers of students enrolled in this program could be higher than these relatively conservative initial estimates.

iii. Budget Projections – Complete and attach the Five-Year Budget Projection Table. See attached Budget sheet

### J. Facilities and equipment required

- i. Existing facilities: type of space required, number of assignable square feet, space utilization assumptions, special requirements, modifications, effect on present programs All required MS MIS and ECO courses are offered prior to the start of the joint degree program, with some room to increase the number of students. No additional expenditure is needed. Additional revenue may be generated from the regular enrollment increase.
  - No reallocation of institutional financial support is needed.
  - Courses are currently offered.
  - No additional staff is needed.
  - No additional operating funds are needed.
  - Both the MS MIS and MA ECO programs already exist. No additional library and information resources are needed.
- ii. Additional facilities required: number of assignable square feet, description of space required, special requirements, time sequence assumed for securing required space None.
- iii. Existing and additional equipment required

The continued use of existing classrooms, computer labs, and other facilities will be needed.

K. Student services required – Plans to provide student services, including advisement, to accommodate the program, including its implications for services to the rest of the student body

The program will use the existing services, such as MIS and ECO advising, student organizations, and career services. The size of the program will not negatively impact the services to the rest of the student body.

- L. Consultant Reports If a consultant was hired to assist in the development of the program, please complete subsections A through C. A copy of the consultant's final report must be on record at the requesting institution.
  - i. Names, qualifications and affiliations of consultant(s) used n/a

ii. Consultant's summary comments and recommendations n/a

iii. Summary of proposer's response to consultants

n/a

### M. Articulation Agreements

i. Articulation agreements were successfully completed with the following NSHE institutions. (Attach copies of agreements)

n/a

ii. Articulation agreements have not yet been established with the following NSHE institutions. (Indicate status)

n/a

iii. Articulation agreements are not applicable for the following institutions. (Indicate reasons)  $\ensuremath{\text{n/a}}$ 

#### N. Summary Statement

The proposed Master of Science in Data Analytics and Applied Economics meets the needs of students who seek to develop data management, economic analysis, and statistical analysis skills that are in short supply and increasingly necessary for many areas of the public and private sectors. Currently, no program meets these needs in Southern Nevada. Thus, our program meets an important demand. Moreover, the proposed program uses only existing courses and resources, and does not require any new resources. We expect the program to attract high quality students, and hence it will make UNLV more attractive to prospective faculty. In sum, the proposed program will benefit the State of Nevada as well as our students and faculty without placing any additional burdens on the state.



**DATE:** Wednesday May 4, 2016

TO:

CC:

FROM: Jason Nicholas, Director of Marketing Analytics

**SUBJECT:** In support of ECON/MIS Analytics Program

There is incredibly high demand for graduates from an analytics program such as the one detailed by the Department of Economics. I know at Caesars, our appetite for students with these skills goes far exceed our analytics team and are in demand across the enterprise. Our marketing teams, operational leadership, hotel yielding, and gaming managers are all being led by individuals with strong analytics experience. Increasingly, these leaders are creating a culture that demands their direct reports also provide analytic rigor in their decision makings. Analytics has permeated our culture in a way that makes it hard to escape.

In the gaming industry more broadly, we are seeing many of our competitors also make inroads into the analytics space. MGM recently reorganized how they "manage" numbers and consolidated all of analytics into a single entity designed to cover their entire business. Pinnacle has done the same. Las Vegas Sands and Wynn both have been enhancing their analytical spirits with teams dedicated to modeling and forecasts.

The course work laid out does an excellent job covering the diversity that comes with a career in analytics. The programing/MIS courses within the degree, covering big data to Java, are skills required for an analyst to begin making an impact within an organization. Without these data skills, questions can't be answered. Students starting their careers with a deep understanding of programing can contribute instantly and are thus much more marketable to companies like Caesars.

The next major trait analytics leaders seek in entry level analysts is being able to make sense and find "learnings" from the data. This is covered well within the econometric portion of the program. I know having taken these courses their value in understanding the meaning behind results and what traps must be avoided. One area, which students may want to consider as an elective, would be a in business statistics and AB testing course. Experimentation and test and controls are all the rage in getting consumers to reveal preferences. A class where they set up a test and control experiment would also give them something very marketable to discuss in interviews.

The most important quality I look for when hiring entry level analyst are critical thinking skills. How do you look at a problem? How do they understand the forces and drivers at play, and what can be used and changed to drive profitable results? This is the essences of microeconomics. The Micro theory courses included in the program set the stage perfect for employers to target these graduates. I would add the course where you have to read Ackerloff, Spence, and Becker as well as I took great value from understanding the diversity in which economic theory can be deployed.

As a career analyst and proud alumni of LBS/Econ department, I take pride in UNLV considering the addition of a program as cutting edge as this. The gray area between programming and economics is a void many business leaders deal with whenever making hiring decisions. This program, and many other like it that are surfacing around the country, are helping to bridge that gap and bring analytics out of the shadows of individual departments and into a vital role with the corporate structure.

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**ELVIS FONG** 

DIRECTOR OF GLOBAL GAMING ANALYTICS

March 30, 2016

3355 Las Vegas Boulevard South | Las Vegas, Nevada 89109 | USA d: 702-414-3914 | c: 702-875-3609 elvis.fong@venetian.com

To whom it may concern:

I am writing today to express my support for the proposed Data Analytics and Applied Economics program.

I graduated from UNLV six years ago with a Master's degree in economics, and to this day, I am very grateful to have embarked on that program. Since graduating, I have worked in the gaming and hospitality industry providing support in analytics. There is not one day that goes by that the reasoning and research skills that I take away from that program do not help me succeed in my job, and for that reason, I can attest to the importance of an education in economic theory.

My work, however, has extended beyond analysis, and I have witnessed firsthand through my own involvement in projects as well as from other people that I have worked with the value of combining strong analytical skills with strong technical skills. Such skills include being able to read and query data, computer programming, and literacy in business intelligence and data visualization tools. After all, you need to be able to extract data before you can analyze them. You need to be able to code to facilitate reporting and modeling. And you need to know how to communicate findings using the best tools employed in the industry. Being technically capable goes hand in hand with being analytically capable.

I urge you to strongly consider implementing this program. I know I would have found such a comprehensive curriculum beneficial given my own career track. Today, analysts and data scientists are in higher demand than ever. As a manager, I can say with confidence that this program will prepare students to fill that demand.

Thank you,

Elvis Fong

Director of Global Gaming Analytics

Las Vegas Sands Corp.



## New Program Proposal Dean's Memo

May 1, 2016

To: Executive Vice President and Provost Chase:

From: Dean Brent Hathaway

RE: Proposed Master of Science in Data Analytics and Applied Economics

The Lee Business School (LBS) MS in Management Information Systems currently delivers concepts associated with data gathering, data management and programming. The LBS MS in Economics currently delivers concepts associated with economic reasoning and statistical analysis. The joint MS in Data Analytics and Applied Economics offers these concepts in a single graduate degree program.

The Master of Science in Data Analytics and Applied Economics meets the needs of students seeking knowledge of information technology and economic and statistical analysis. As evidenced by the materials submitted with this proposal, the demand for these skills is high. Moreover, the proposed program uses only existing courses and resources. Expectations are that the program will attract high quality students and faculty without placing any additional burden on the State.

The addition of the MS in Data Analytics and Applied Economics is consistent with the LBS Strategic Plan. The plan calls for the college to "cultivate student success by identifying relevant and market-driven knowledge areas", and to "nurture excellence and achievement by identifying and enhancing each department's distinctive capabilities in teaching, research, and service". Providing this new degree program is consistent with these goals.

Sincerely,

**Brent Hathaway** 

#### **New Academic Program Proposal Five-Year Program Cost Estimate** (Revised December 2015)

Institution: UNLV		Program: [	Data Analytics &	Applied Econon	Semester of Implementation:		Fall 2017	
<b>DIRECTIONS</b> : Complete the Stude year one must be noted by source in		ving cost estimat	es for the first, th	nird, and fifth for	the proposed new	program in Sect	ion A. Any "new"	costs in
STUDENT FTE:			Year 1: _	7.5	Year 3:	15	Year 5:	22.5
Section A.	Year 1/Sta		art-up		Year 3		Year 5	
	Existing <sup>1</sup>	New <sup>2</sup>	Total	FTE	Total	FTE	Total	FTE
PERSONNEL								
Faculty (salaries/benefits) <sup>3</sup> Graduate Assistants	30,000 30,000	0	30,000 30,000	0.3 1.5	30,000 30,000	0.3 1.5	30,000 30,000	0.3 1.5
Support Staff Personnel Total	10,000 \$70,000	0 \$0	10,000 \$70,000	0.25 2.1	10,000 \$70,000	0.25 2.1	10,000 \$70,000	0.25 2.1
OTHER EXPENSES								
ibrary Materials ( <i>printed</i> ) ibrary Materials ( <i>electronic</i> )	0	0 0	0		0		0	
Supplies/Operating Expenses	5,000	0	5,000		5,000		5,000	
Equipment Other Expenses	0 0	0 0	0		0		0	
Other Expenses Total	\$5,000	\$0	\$5,000		\$5,000		\$5,000	
TOTAL	\$75,000	\$0	\$75,000		\$75,000		\$75,000	
Section B.	_	1						
	2	Amount	%					
EXPLANATION OF "NEW" SOURCE	ES <sup>-</sup>							
Fuition/Registration Fees Federal Grants/Contracts		0						
		0						
State Grants/Contracts Private Grants/Contracts		0						
Private Grants/Contracts		0						
Other (please specify)		0						
TOTAL		\$0	0.0%					
Resources allocated from existing programs to	the proposed program	+-		ıg" column.				

**EXPLANATION** (Please provide any additional information pertinent to the budget projection, including for example, explain for any new funding sources that are not guarnateed receipt by the institutions how the program will make-up for the potential loss in expected new funding.):

We are not expecting to hire additional faculty, staff or graduate students.

Students in this program will enroll in already existing courses.

8.23.16

<sup>2</sup>Any "New" resource utilized to fund a new program must include the source to be provided in the "Explanation of New Sources" section. Total "New" sources for the first year must equal the total under "Explanation of New Sources."

<sup>&</sup>lt;sup>3</sup>Budget estimates for faculty salaries and benefits must include estimated merit and COLA increases in Year 3 and Year 5.