

SAMPLE FIPSE PROPOSAL

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 PI16 B08-0026		Version 02
* 1. Type of Submission: <input type="radio"/> Preapplication <input checked="" type="radio"/> Application <input type="radio"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="radio"/> New <input type="radio"/> Continuation <input type="radio"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify) <input type="text"/>
* 3. Date Received: <input type="text" value="05/02/2008"/>	4. Applicant Identifier: <input type="text"/>	
5a. Federal Entity Identifier: <input type="text"/>		* 5b. Federal Award Identifier: <input type="text"/>
State Use Only:		
6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>	
8. APPLICANT INFORMATION:		
* a. Legal Name: <input type="text" value="University of Maryland University College"/>		
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="52-6002033"/>	* c. Organizational DUNS: <input type="text" value="195877790"/>	
d. Address:		
* Street1: <input type="text" value="3501 University Boulevard East"/>	Street2: <input type="text"/>	
* City: <input type="text" value="Adelphi"/>	County: <input type="text"/>	
* State: <input type="text" value="MD: Maryland"/>	Province: <input type="text"/>	
* Country: <input type="text" value="USA: UNITED STATES"/>	* Zip / Postal Code: <input type="text" value="20783"/>	
e. Organizational Unit:		
Department Name: <input type="text"/>	Division Name: <input type="text"/>	
f. Name and contact information of person to be contacted on matters involving this application:		
Prefix: <input type="text"/>	* First Name: <input type="text" value="Pamela"/>	
Middle Name: <input type="text"/>		
* Last Name: <input type="text" value="Dello-Russo"/>		
Suffix: <input type="text"/>		
Title: <input type="text" value="Director, Grants Development and Compliance"/>		
Organizational Affiliation: <input type="text"/>		
* Telephone Number: <input type="text" value="240-582-2769"/>		Fax Number: <input type="text"/>
* Email: <input type="text" value="pdello-russo@umuc.edu"/>		

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

H: Public/State Controlled Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*** Other (specify):**

*** 10. Name of Federal Agency:**

U.S. Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.116

CFDA Title:

Fund for the Improvement of Postsecondary Education

*** 12. Funding Opportunity Number:**

ED-GRANTS-032108-001

*** Title:**

Fund for the Improvement of Postsecondary Education Comprehensive Program CFDA 84.116B

13. Competition Identification Number:

84-116B2008-2

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

A Web-based Mentoring Program Creating Industry-Academe Synergy

Attach supporting documents as specified in agency instructions.



U.S. DEPARTMENT OF EDUCATION

BUDGET INFORMATION

NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1890-0004

Expiration Date: 06/30/2005

Name of Institution/Organization: University of Maryland Universit...

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

SECTION A - BUDGET SUMMARY

U.S. DEPARTMENT OF EDUCATION FUNDS

Budget Categories	Project Year 1(a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	\$ 84,032	\$ 87,393	\$ 56,464	\$ 57,572	\$ 0	\$ 285,461
2. Fringe Benefits	\$ 22,268	\$ 23,159	\$ 14,963	\$ 15,257	\$ 0	\$ 75,647
3. Travel	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 0	\$ 12,000
4. Equipment	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
5. Supplies	\$ 1,500	\$ 1,000	\$ 1,000	\$ 1,000	\$ 0	\$ 4,500
6. Contractual	\$ 21,300	\$ 11,100	\$ 12,700	\$ 20,700	\$ 0	\$ 65,800
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 2,000	\$ 0	\$ 2,000
9. Total Direct Costs (lines 1-8)	\$ 132,100	\$ 125,652	\$ 88,127	\$ 99,529	\$ 0	\$ 445,408
10. Indirect Costs*	\$ 45,377	\$ 47,192	\$ 30,491	\$ 31,089	\$ 0	\$ 154,149
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 177,477	\$ 172,844	\$ 118,618	\$ 130,618	\$ 0	\$ 599,557

*Indirect Cost Information (To Be Completed by Your Business Office):

If you are requesting reimbursement for indirect costs on line 10, please answer the following questions:

(1) Do you have an Indirect Cost Rate Agreement approved by the Federal government? Yes No

(2) If yes, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement: From: 7/1/2006 To: 6/30/2010 (mm/dd/yyyy)

Approving Federal agency: ED Other (please specify): Department of Health and Human Services

(3) For Restricted Rate Programs (check one) -- Are you using a restricted indirect cost rate that:

Is included in your approved Indirect Cost Rate Agreement? or, Complies with 34 CFR 76.564(c)(2)?

Project Abstract

In response to FIPSE's comprehensive program Invitational Priority 2, University of Maryland University College (UMUC) proposes to enhance the Professional Science Master's (PSM) programs by developing an industry guided Web-based professional development plan that is integrated throughout the program.

To better align the workforce needs with/to the skills of graduating students, a new type of industry-academia relationship is required. In this project UMUC will design, develop, test, implement and disseminate a collaborative model that utilizes industry mentors. Typically, mentoring programs offer guidance by academics, mostly in a face-to-face format at the undergraduate level, and occur towards the end of the degree. In this project industry mentors and mentees will use online tools, including an electronic Industry Guided Professional Action Plan (E-PAP) tool, from the time students begin the program until they graduate, with assistance provided by graduates of the program.

The E-PAP tool and other materials developed and used for this project will be available online for easy access to students, mentors, assistants and administrators as well as for replication at other institutions. Evaluation will be ongoing and dissemination will occur during the later stages of the project.

This collaborative model with industry will result in students being better prepared for the job market, a higher retention rate, and a higher level of student satisfaction. Institutions will have a curriculum that aligns to industry needs and will provide students with real-world professional experience. In addition, industry will play an active role in shaping student's workforce skills, which will lead to an increased pool of potential professionals for future employment and increased competitiveness for the companies.

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Need and Magnitude of Problem

"Higher education and the business community must work together regionally to prepare the workforce for the jobs of the future" - a panel of college and business leaders to Sen. Mike Enzi (R-WY) on March 4, 2004

One of the key workforce issues as identified by the Department of Labor, Employment and Training Administration is educators' and job seekers' limited understanding of industry needs. This issue is magnified by the growing national employment in scientific and technical areas, which according to U.S. Bureau of Labor Statistics (BLS), is expected to grow by 17 % between 2006 and 2016.

As a new degree, the Professional Science Master's (PSM) represents one response to the growing need for graduates in the fields of science, technology, engineering and mathematics (STEM). Results from a pilot survey conducted by the Council of Graduate Schools (CGS) in 2006 revealed that the PSM model is fulfilling its mission to prepare graduate-level scientists to enter the workforce. On January 28, 2008, the Washington Post, under the heading *Area Schools Heed Science Industry's Warning*, reported "the PSM degree is being hailed as one of the most promising innovation in graduate education in years". In the September/October 2007 issue of ACS's *in Chemistry*, Carol B. Lynch and Eleanor L. Babco reported that "the powerful combination of science and professional skills is highly valued by employers, and helps PSM graduates find careers in business, government, and non-profit organizations". Currently, there are over 120 PSM programs across 63 institutions nationwide that have graduated 1200 students.

Although PSM programs are unique in their design in addressing many of the workforce needs and preparing students with skills desired by employers, Beryl Benderly reported in the article *Mastering the Job Market* (Science, March 7, 2008) that "many employers are still unfamiliar with the concept of PSM". This underscores a need for a strategy that will increase the awareness about PSM programs in the industry.

University of Maryland University College (UMUC) acknowledges the necessity for a close partnership with industry and government as evident from one of its strategy statements "Ensure that our academic programs and services are responsive to a changing workforce and a changing world". With online enrollments reaching 177,000, UMUC is the world's largest online-enabled state university and the only university with online PSM programs in Biotechnology and Environmental Management. UMUC is also diverse in providing access to underrepresented populations to its PSM programs. In the academic year 2005-06, African American, Asian and Hispanic minority groups comprised around 41% of the total students in the program, and women students constituted over 50% of the student population.

Although UMUC is ahead of many other institutions in recruiting and providing access to diverse students in undergraduate and graduate study, including the PSM degree programs, it is nonetheless challenged by the need to provide supportive and innovative programs to retain all students. Although this challenge applies to all academic settings, students in online programs, most of whom are working professionals and adults, are especially at risk for attrition or disengagement because professional and community building opportunities are limited and conflict with other priorities in their life. Active involvement of the industry in a program will assist in keeping them focused and achieving success.

The need for academic-industry collaborative relationships to enhance student learning and professional development is well-recognized and initiatives are being undertaken nationwide to establish a variety of relationships which may vary in scope, objectives and goals based on the partners. The most common types of collaborative relationships include the presence of industry professionals on departmental advisory boards, product usage where universities receive discounted software from companies such as Oracle and Microsoft to be integrated into the

curriculum (Oka and Prey, 2007), and companies providing real-world capstone projects for students (Christensen and Rundus, 2003). Another type of partnership involves forming an industry-academia consortium (Kumar. A et al, 2002). The consortium is formed by a university and several industry partners, with each industry partner providing a different service or product. In recognition of the need for academic-industry partnerships to enhance student learning and professional development, the National Science Foundation (NSF) has allocated funds for programs that foster industry-academia partnerships. One such example is The Advanced Technological Education Program funded by NSF, which has a component of mentoring in its partnerships.

(http://www2.aacc.nche.edu/atecenter/images/ATE_Impact_brochureLR.pdf)

Research indicates that mentoring also has a positive impact on the personal and professional development of students (Levinson, 1978). There is also a growing body of research in higher education that suggests an empirical link between student mentoring and student retention (Campbell & Campbell, 1997; Wallace & Abel, 1997). For instance, Miller, Neuner, and Glynn (1988) used an experimental research design in which students were randomly assigned to either an experimental group which received mentoring, or a control group which did not. It was found that students who received mentoring evinced higher retention rates than non-mentored students with similar pre-enrollment characteristics. However, in the mentoring studies mentoring has been provided by academic personnel.

As of Fall 2007, UMUC offers 14 Master's degree programs. The interaction with industry presently encompasses the capstone course that in most cases entails a "virtual internship". Students in this course complete a project for a company, which not only provides them with practical experience but also professional development, through mentorships by

industry professionals. Evaluation results have revealed that students consider the capstone course of great value. Additionally, even after earning a degree, a student may not have the knowledge and skills desired by an employer. Therefore, a Web-based professional development component, in collaboration with industry partners, integrated throughout the curricula of each program would provide a nurturing and professional development community for the students. Such a component will also motivate the students to complete the program in a timely manner and find suitable career opportunities. Industry will benefit by actively shaping and developing a future employee who is closely suited to the industry needs.

Efforts are underway by one of the PSM programs at UMUC, the Graduate Biotechnology Program, to increase collaboration with industry. The first is through the capstone course, a one semester course which provides students with real-world projects and professional and career development. The second effort is through an annual symposium on career and technology trends that has, for the past 4 years, invited senior company executives to speak on technological changes and workforce needs of the industry. This has provided an opportunity for the students to learn from the industry and has resulted in collaborative relationships with companies. These two efforts have and will support the project by providing mentors and assisting with dissemination.

Our research has revealed that only one e-mentoring program offered by a non-profit organization www.MentorNet.net, comes close to bridging the gap between the industry and academia while supporting the academic efforts of diverse students. This organization matches women in engineering and related science majors with professionals in industry for year-long, structured mentoring relationships conducted via e-mail.

Our Model

Funding from FIPSE will enable UMUC's PSM programs, which include Biotechnology, Environmental Management, and our future Information Assurance program, to design, develop and disseminate an electronic Industry Guided Professional Action Plan (E-PAP) tool threaded through the curriculum of a PSM degree program. The industry guidance will come through the mentors who will be provided by the project collaborators; MdBio, Women in Bio, and Montgomery County Business Innovation Network. The model's distinct features are as follows:

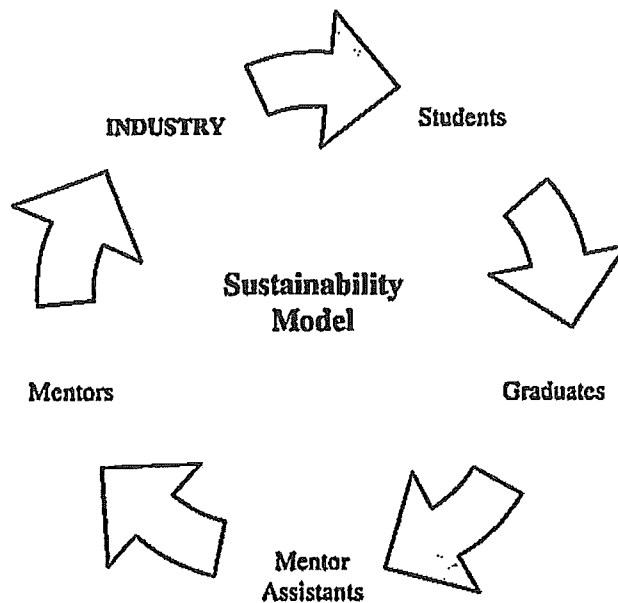
1. Provides industry guidance to the student from the onset of the program
2. Embedded in the program
3. Offered at graduate level
4. Utilizes Web-based technologies that enable easy access and participation, provide flexibility and easier management of resources

Upon entering a PSM program students will be provided an opportunity to reflect upon and document their professional goals and specific actions that they will take to achieve these goals using E-PAP. The E-PAP will be reviewed by industry mentors, who will choose a mentee based on alignment of interest. Each mentor will be assigned to at least 5 mentees as it has been shown that programs where multiple students have the same mentor are as effective as traditional one to one arrangements (Walker & Taub, 2001). This action plan will contain a short biography of the student, short term and long term professional goals and an action plan to achieve each of those goals. Mentors will be assisted by Mentor assistants (MA's) who will be graduates of the program.

The mentors, MA's and students will meet using a web-based product such as Adobe Connect and/or Wimba. At the first meeting the E-PAP that the student has completed will be

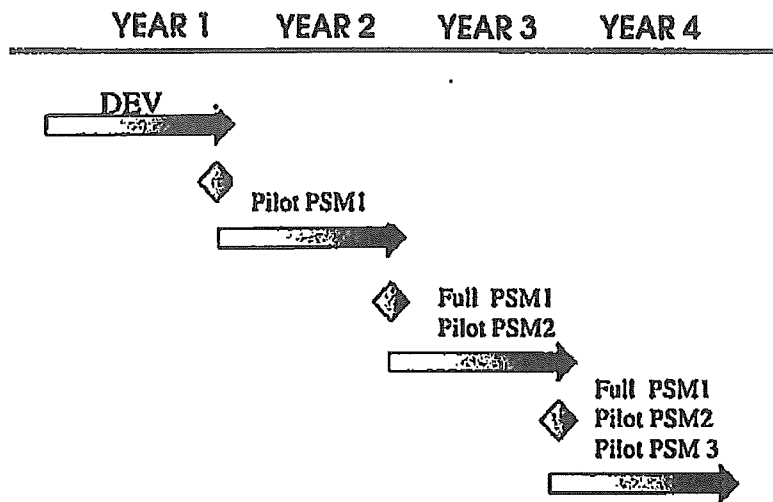
discussed and may undergo revisions as an outcome of the meeting. As a benchmark for the first semester, a short-term goal and its corresponding activities will be identified. At the conclusion of the first semester the student will describe the results of the activities in a short report. An additional meeting will be scheduled with the mentor. This meeting will be used to discuss the report and identify a goal to be used as a benchmark for the next semester and the same process as before will be followed. Throughout the program students and mentors will be able to participate in an online forum. This forum will be utilized to present case studies, promote online discussions, and serve as a question and answer platform.

As depicted in the diagram below the model is self sustaining. Students will start off as mentees, graduate, and may become mentor assistants who in turn may join the industry and the mentor pool, making this a sustainable, community project.



Although the duration of the grant will prevent the model from being tested at other institutions, several iterations within UMUC will demonstrate the replication capacity of the project. The testing phase within UMUC is demonstrated by the following timeline. The first

year is dedicated to development and the following years to pilots and full implementation in PSM programs beginning in Biotechnology and following with Environmental Management and Information Assurance.



Significance of the Project

Successful completion of this project will provide benefits to all stakeholders, students, companies and universities, at both local and national levels. Students benefit from the professional development support provided by an industry mentor, enriched curriculum and job opportunities. The company benefits from projects that are completed by students, access to shaping students' careers and a source of potential employees. From the perspective of the university it will help align curriculum to business needs, provide real-world projects for the students, and help more students successfully complete a program.

In the current model of PSM programs, the relationship between students and the industry is developed late in the program when the student starts the internship or capstone project. The proposed mentoring model will add value by initiating the relationship building process at the beginning of the program by providing the opportunity for industry to play an active role in the

growth and development of the student. The results of such a model have the potential to redefine the success of higher education. It will address some of the key workforce issues of national significance, such as preparing students to have the skills that align with the workforce needs, retention, and recruitment. The close alliance with the industry and the guidance provided by the mentors will encourage and motivate more underrepresented and minorities students to complete the program and enter the workforce.

On the national level, companies will be more competitive due to the influx of professionals entering the workforce that possess the knowledge and skills desired by industry. The developed and tested E-PAP model will provide a framework for other educational institutions to replicate. The E-PAP tool and the resources for the mentoring program will be released as open shareware for other institutions' use.

Quality of Project Design

The overarching goal of this project is to integrate industry-directed career and professional development activities into Master's level academic curricula at the onset of the program to achieve the following:

- Increased awareness of workforce needs among students
- Identification of student's professional goals
- Improved interaction with industry/government
- Opportunities for students to find the "best fit" jobs upon graduation

The objectives for each of the four years and the proposed milestones are delineated in the table below:

OVERALL GOAL	
Develop, test, implement, evaluate, and disseminate a national model that integrates a comprehensive industry guided web-based professional development plan component into PSM programs.	
YEAR 1	
Objective 1: Develop, design, and evaluate an electronic Professional Action Plan tool (E-PAP)	Milestone 1: Meet with Advisory Board and Project Partners to discuss and delineate the requirements for an electronic Professional Action Plan tool (E-PAP) Milestone 2: Design and develop an electronic Professional Action Plan tool (E-PAP) based on requirements and currently existing similar tools Milestone 3: Evaluate the usability of the tool during the development phase and post dry run
Objective 2: Develop, run, and evaluate the training aspect of the industry-guided mentoring program	Milestone 1: Hire an external evaluator Milestone 2: Develop training resources Milestone 3: Recruit and train an industry-based mentoring pool in the use of E-PAP Milestone 4: Evaluate the effectiveness of the training material and the training
YEAR 2	
Objective 1: Conduct a pilot study of the web-based, industry-guided E-PAP project in the Biotechnology PSM Program	Milestone 1: Recruit pilot participants and Mentors (Create the piloting pool) Milestone 2: Conduct the pilot Milestone 3: Evaluate the effectiveness of the pilot Milestone 4: Discuss results with Advisory Board and Project Partners and recommend revisions Milestone 5: Perform project and program revision based on evaluation data
YEAR 3	
Objective 1: Conduct a full program study of the web-based, industry-guided E-PAP in the Biotechnology PSM Program	Milestone 1: Register new students and Mentors (Create the mentoring program participants pool) Milestone 2: Implement the E-PAP mentoring program in the Biotechnology PSM Program Milestone 3: Evaluate the effectiveness of the project Milestone 4: Discuss results with Advisory Board and Project Partners and recommend revisions Milestone 5: Perform project and program revision based on evaluation data
Objective 2: Conduct a pilot study of the web-based, industry-guided E-PAP project in the Environmental Management PSM program	Milestone 1: Recruit pilot participants and Mentors (Create the piloting pool) Milestone 2: Conduct the pilot Milestone 3: Evaluate the effectiveness of the pilot Milestone 4: Discuss results with Advisor Board and Project Partners and recommend revisions Milestone 5: Perform project and program revision based on evaluation data
Objective 3: Develop and digitize resources for the model and share them with other PSM programs	Milestone 1: Develop training material for online delivery Milestone 2: Build a repository of resources Milestone 3: Develop a website for PSM programs Milestone 4: Present the model and summary of results to other PSM programs Milestone 5: Evaluate responsiveness and quality
YEAR 4	
Objective 1: Continue to create and modify sharable online resources for the implementation of the model	Milestone 1: Add more web-based material to the repository of resources Milestone 2: Recruit more Mentor Assistants (MA's) Milestone 3: Transition senior Mentor Assistants to mentor positions Milestone 4: Conduct a pilot study in a new PSM program-Information Assurance Milestone 5: Evaluate the utility and practicality of the resources and data from the expansion of the model

	Objective 2: Organize and attend meetings/symposia to disseminate the model and the resources
	Milestone 1: Attend meetings on Higher Education, Distance learning and Science education to explain the model and its results Milestone 2: Organize meetings to invite and inform other PSM programs about the model and the available resources Milestone 3: Evaluate the attendance, interest and requests from the meetings
	Objective 3: Analyze the data collected from the various studies over the 3 year period
	Milestone 1: Collect student retention and satisfaction data from all programs Milestone 2: Collect career placement/promotion data Milestone 3: Identify other institutions testing the model Milestone 4: Compile and collate data on the evaluation of the model

Key Personnel/Management Team

This project is a collaborative effort leveraging the skills and knowledge of key professionals in the Graduate School of Management and Technology (GSMT) and the Center for Support of Instruction (CSI). Initial industry support is being offered by MdBio, Women in Bio, and Montgomery County Business Innovation Network. The following chart identifies the key UMUC staff and the external evaluator involved in the program. Biosketches and support letters are included in the grant package.

Team Member	Affiliation	Responsibility/Expertise
Rana Khan, PhD	UMUC, GSMT, Associate Professor and Program Director of Biotechnology	Overall project administration and expertise in the field of biotechnology
Robert Beauchamp, PhD	UMUC, GSMT, Collegiate Professor and Program Director of Environmental Management	Provide guidance and assistance in program development and provide expertise in the field of environmental management
Jim Chen, PhD	UMUC, GSMT, Professor and Program Director of Information Assurance	Contribute knowledge and skills in project design and development and provide expertise in the field of information assurance
Yulia Nemchinova, PhD	UMUC, CSI, Senior Instructional Support Specialist	Extensive experience in the development of online academic materials, objects and supporting services. Responsible for the development of the E-PAP tool
Heloisa Siffert, MA	UMUC, CSI, Instructional Support Specialist	Facilitates delivery of quality distance education programs. Provides extensive skills and knowledge in online program development
An Michiels, PhD External Evaluator	Keygene, Rockville, MD	Extensive experience in evaluation and assessment of research collaborations and projects

The following is a detailed timeline illustrating activities, responsibilities, and implementation components over the four year grant period.

YEAR 1

Activities	Responsible Person	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
Project Management														
1. Advisory Board Meeting	R. Khan R. Beauchamp J. Chen	•					•							•
2. Management Team		•		•		•	•	•						
3. Meeting w/ partners to create Industry Mentor pool	R. Khan R. Beauchamp J. Chen	•												
4. Hire evaluator	R. Khan R. Beauchamp J. Chen				•									
Develop and design E-PAP Tool														
1. Requirements			•											
2. Environmental Scan	Y. Nemchinova H. Siffert			•										
3. Customization	Y. Nemchinova H. Siffert				•	•						•	•	
4. Usability Testing	Y. Nemchinova					•								
5. Software enhancement/coding	Software programmer						•	•	•		•			
6. Usability Testing	Y. Nemchinova								•			•		
7. Hosting the tool	Y. Nemchinova													•
8. Dry run for launch	R. Khan Y. Nemchinova H. Siffert J. Chen										•	•		
9. Evaluate E-PAP tool	Ext. evaluator Advisory Board										•	•	•	
Develop Mentoring Program														
1. Identify and Hire MAs	R. Khan								•	•				
2. Develop training material	R. Khan R. Beauchamp J. Chen H. Siffert										•	•	•	
3. Develop marketing flyers	R. Khan H. Siffert											•		
4. Identify location	R. Khan													•
5. Training session f2f	R. Khan R. Beauchamp J. Chen H. Siffert													•

Activities	Responsible Person	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
6. Evaluate training and training material	Ext. Evaluator Advisory Board										•	•	•
YEAR 2													
Project Management													
1. Advisory Board Meeting	R. Khan R. Beauchamp J. Chen	•					•						•
2. Management Team		•	•		•	•	•						
3. Start developing training components for online delivery	H. Siffert							•	•	•	•	•	•
4. Bring in more partners and increase mentor pool	Current partners							•	•	•	•		
5. Recruit more MA's	Current partners								•	•	•		
Mini Pilot in Biotechnology PSM program													
1. Sign-up of new students in Mentoring Program	Y. Nemchinova	•											
2. Tutorial for new students on tool and mentoring program	H. Siffert	•											
3. Sign-up of MA's in Mentoring Program	Y. Nemchinova	•											
4. New students complete E-PAP and submit	MA's		•										
5. Mentors review E-PAP	R. Khan		•										
6. Web-based meeting between new students/mentors/MA's to discuss E-PAP (1 mentor/5 students)	R. Khan		•										
7. Follow-up meetings between students/MAs	R. Khan		•	•	•	•							
8. Web-based Q&A forum w/ mentors	R. Khan			•	•								
9. Completion of E-PAP report	MA's					•							
10. Revision of E-PAP by students	MA's					•							
11. Evaluation of the minipilot: Meeting with partners to assess model and make changes								•	•	•	•	•	•

Activities	Responsible Person	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
YEAR 3														
Project Management														
1. Advisory Board Meeting	R. Khan R. Beauchamp J. Chen	•					•							•
2. Management Team		•	•			•	•	•						
3. Move some of the MA's to mentor roles	Y. Nemchinova									•	•	•	•	
Full implementation in Biotechnology PSM program														
1. Sign-up of new students in Mentoring Program	Y. Nemchinova	•				•				•				
2. Tutorial for new students on tool and mentoring program	H. Siffert	•				•				•				
3. Sign-up of MA's in Mentoring Program	Y. Nemchinova	•				•				•				
4. New students complete E-PAP and submit	MA's		•					•			•			
5. Mentors review E-PAP	R. Khan		•					•			•			
6. Web-based meeting between new students/mentors/MA's to discuss E-PAP (1 mentor/5 students)	R. Khan		•					•			•			
7. Follow-up meetings between students/MAs	R. Khan		•	•	•				•	•	•		•	•
8. Web-based Q&A forum w/ mentors	R. Khan			•	•					•	•			•
9. Completion of E-PAP report	MA's				•					•				
10. Revision of E-PAP by students	MA's				•					•				
11. Evaluation of the project and its effectiveness	External Evaluator			•	•	•				•	•	•		•
Mini Pilot in Environmental Management PSM program														
1. Training for new program (ENVM) to conduct a minipilot	Y. Nemchinova H. Siffert		•	•	•									
2. Sign-up of new students in Mentoring Program	Y. Nemchinova							•						
3. Tutorial for new students on tool and mentoring program	H. Siffert							•						
4. Sign-up of MA's in Mentoring Program	Y. Nemchinova							•						

Activities	Responsible Person	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
5. New students complete E-PAP and submit	MA's								•				
6. Mentors review E-PAP	R. Khan								•				
7. Web-based meeting between new students/mentors/MA's to discuss E-PAP (1 mentor/5 students)	R. Khan								•				
8. Follow-up meetings between students/MAs	R. Khan								•	•	•	•	
9. Web-based Q&A forum w/ mentors	R. Khan									•	•		
10. Completion of E-PAP report	MA's										•		
11. Revision of E-PAP by students	MA's										•		
12. Evaluation of the effectiveness of the model	R. Beauchamp											•	•
Development and Dissemination													
1. Continue developing training components for online delivery	Y. Nemchinova H. Siffert									•	•	•	•
2. Start building a repository of resources	Y. Nemchinova									•	•	•	•
3. Develop a PSM programs website	H. Siffert										•	•	•
4. Present the model to other PSM programs	R. Beauchamp R. Khan											•	•
5. Evaluate resources and interest	R. Beauchamp R. Khan											•	•
YEAR 4													
Project Management													
1. Advisory Board Meeting	R. Khan R. Beauchamp J. Chen	•						•					•
2. Management Team		•	•		•	•	•						
3. Move some of the MA's to mentor roles	Y. Nemchinova									•	•	•	•
Project Expansion													
1. Expand the repository of resources	Y. Nemchinova H. Siffert			•	•	•							
2. Test the model in a new PSM program (INFA)	J. Chen						•	•	•	•	•	•	
3. Evaluation of the model	J. Chen Ext evaluator										•	•	•

Activities	Responsible Person	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
Dissemination													
1. Make resources available to other PSM programs nationally	R. Khan						•	•	•				
2. Organize workshops to disseminate the model and results	R. Khan R. Beauchamp Y. Nemchinova H. Siffert									•	•	•	
3. Attend meetings/conferences to disseminate model	R. Khan R. Beauchamp J. Chen Y. Nemchinova H. Siffert											•	•
4. Make resources available to other PSM programs nationally	R. Khan						•	•	•				
5. Evaluation of interest and adoption of the model	Participants						•	•	•	•	•	•	•
Grant end Evaluation													
1. Collect data on student retention from BIOT and ENVM	R. Khan R. Beauchamp									•	•		
2. Evaluate model	External Evaluator	•	•	•	•	•	•	•	•	•	•	•	•

Quality of Project Evaluation

Creating a web-based project involves multiple steps and considerations including formative evaluation during the development of the resources and tools and summative evaluation to assess the impact of the project. A number of specific approaches will be used for continuous monitoring and evaluation of the comprehensive program.

First, Dr. Yulia Nemchinova, an expert in usability testing working with UMUC's Institutional Planning, Research and Accountability Office, will assume responsibility for developing a performance measurement system of the E-PAP tool. Usability testing is a technique used to evaluate a product by testing it on users.

Second, UMUC has invited Dr. An Michiels, Director of Keygene Inc., a Maryland based biotechnology company, who has extensive experience reviewing and assessing

educational and business projects, to be our external evaluator. While working at the American Association for Advancement of Science (AAAS) she participated in "Assessment Project 2061" studying the alignment and effectiveness of hundreds of evaluation items drawn from a variety of sources, including items from the Third International Mathematics and Science Study (TIMSS) and National Assessment of Educational Progress (NAEP) and items from various curriculum materials.

The evaluation plan demonstrates the potential sustainability of the model. All the resources including the Web-based E-PAP tool, training material and tutorials will be developed for delivery in the online format and hence will be conducive to easy sharing. Since the tool will be developed using open source code, customized changes to the tool can be made by other institutions. Because of the online nature of the project, even the mentor and mentor assistant pool can be used by other, similar programs, who want to institutionalize the project.

Criteria and Data to be used for Evaluation

A detailed listing of yearly objectives and indicators (measures) to be used for evaluating the outcomes of each objective is contained in the Appendix. Several of the measures provide quantitative data while others are necessarily qualitative. Typically, each activity will be assessed using a combination of methods. Some numerical measures are based on the testing of the E-PAP tool, number of participating mentors, number of participating mentees, retention and graduation rate of the mentees and effect on careers. Quantitative and qualitative data will be gathered via questionnaires, surveys, and evaluations by program participants.

Comprehensive Evaluation Plan

The following evaluation plan has been designed to measure program effectiveness, scalability, replicability, and sustainability. The project goal stipulates that by September 30,

2012, UMUC will have developed, tested, implemented, evaluated and disseminated a national model that integrates a comprehensive industry guided E-PAP into PSM programs.

Evaluation Objectives	Data Sources	Data Evaluation method	Data Analysis and Interpretation	Use
Year 1				
Develop, design and evaluate an electronic Professional Action Plan (E-PAP) tool	1. Advisory Board 2. Project partners 3. Developers 4. External Evaluator	1. Estimate cost associated with each step 2. Determine tool stability statistics 3. Conduct Usability testing	Cost effectiveness, reliability, efficacy and availability of the tool will be determined	To improve performance of the tool
Develop, run and evaluate the training aspect of the industry-guided mentoring program	1. Project Partners 2. Mentors 3. Developers 4. External Evaluator	1. Distribute Questionnaire 2. Estimate participation level 3. Conduct Interviews 4. Conduct Usability testing	Ease of use and the time spent to navigate through the tool. Design and delivery of the training program	To enhance the quality of the training resources and the tool and to make it easy to understand and use effectively
Year 2				
Conduct a pilot study of the web-based, industry-guided E-PAP project in the Biotechnology PSM Program	1. Mentors 2. Students 3. Mentor Assistants 4. External Evaluator	1. Review student evaluations 2. Determine participation level 3. Conduct Surveys 4. Review External evaluator's assessment	Participants' satisfaction and increased performance. Design of the project and the ease of use.	Increase participants' satisfaction and provide a quality and meaningful interaction
Year 3				
Conduct a full program study of the web-based, industry-guided E-PAP in the Biotechnology PSM Program	1. Mentors 2. Students 3. Mentor Assistants 4. External Evaluator	1. Review student evaluations 2. Conduct surveys 3. Review External evaluator's comments 4. Conduct Interviews 5. Collect Institutional data	Students, mentors and mentor assistants' satisfaction and experience follows the pilot's trends and is reflected in institutional data	Make program and mechanistic changes to enhance the project and the program

Evaluation Objectives	Data Sources	Data Evaluation method	Data Analysis and Interpretation	Use
Conduct a pilot study of the web-based, industry-guided E-PAP project in the Environmental Management PSM program	1. Mentors 2. Students 3. Mentor Assistants 4. External Evaluator	1. Review student evaluations 2. Determine participation level 3. Conduct surveys 4. Review External evaluator's comments	Outcomes similar to those observed in the Biotechnology program will indicate the replicable nature of the project	Share the data with other PSM programs to promote the usability and reliability of the model
Develop and digitize resources for the model and share them with other PSM programs	1. Faculty 2. Staff 3. Developers	1. Determine number and type of resources 2. Estimate cost associated with each resource	Increased interest in the academic community indicative of the sustainability of the model	Assist in encouraging other programs to pilot the model
Year 4				
Continue to create and modify sharable resources for the model	1. Faculty 2. Staff	1. Determine number of online resources 2. Determine need for the resources 3. Estimate cost associated with the development	Support for capacity building and cost effectiveness	To take the model to the national level
Organize and attend meetings/symposia to disseminate the model and the resources	1. Mentors 2. Industry 3. Academic institutions	1. Determine number of meetings 2. Categorize types of meetings 3. Assess audience interest at meetings	Build support and interest in the model	Demonstrate the model's potential to be replicable and sustainable
Combine and analyze the data collected from the various studies over the 3 year period	1. Participants 2. Programs	1. Conduct Surveys 2. Review E-PAP performance data 3. Review external evaluator's comments 4. Collect Institutional	Underscore the impact of the project on the participants	Support the original hypothesis that early industry-student interaction is mutually beneficial

Adequacy of Resources

UMUC and its collaborators have extensive, directly relevant experience to undertake this project. This experience involves the UMUC staff at the cutting edge in development and implementation of an electronic Industry Guided Professional Action Plan (E-PAP) tool. The industry participants will contribute their expertise in guiding the students through the use of the E-PAP tool. UMUC has the facilities, equipment, and data availability to analyze the program and make timely revisions. UMUC, as a recognized leader in online delivery, has the infrastructure and expertise to support the development and design of a Web-based project, negating the need to seek outside resources. The proposed budget is adequate to implement the activities outlined in the grant in a cohesive and timely manner. The cost for project implementation is reasonable, based on the anticipated local and nationwide impact of the project.

The collaborators in this project contribute professional expertise in the areas of research and industry climate and expectations, combined with best practices related to industry standards. The collaborative efforts of the partners provide knowledge that enables universities to have a deeper understanding of the challenges facing their students in the workforce environment. Professionals from participating corporations volunteer their time and effort to sit on committees and advise the UMUC staff on project implementation.

UMUC is heavily vested in the educational and workforce needs of our students' through both the concept and process of online delivery. This project compliments our continued effort to provide a quality education to nontraditional students. The incorporation of this model at our institution will provide added value not only to our students, but also to our industry collaborators. This E-PAP component will become an integral part of the PSM programs at

UMUC and can be replicated throughout the nation. The expenditures of time and resources have already begun and demonstrate UMUC's commitment to this project.

Project Evaluation Chart
Evaluation methodologies

Year/Objectives	Evaluation Method
<p>Year 1</p> <p>1. Develop, design and evaluate an electronic Professional Action Plan (E-PAP) tool</p> <p>2. Develop, run and evaluate the training aspect of the industry-guided mentoring program</p>	<p>1. Estimate cost associated with each step</p> <p>2. Determine tool stability statistics</p> <p>3. Conduct Usability testing</p> <p>4. Distribute Questionnaire</p> <p>5. Estimate participation level</p> <p>6. Conduct Interviews</p>
<p>Year 2</p> <p>1. Conduct a pilot study of the web-based, industry-guided E-PAP project in the Biotechnology PSM Program</p>	<p>1. Review student evaluations</p> <p>2. Determine participation level</p> <p>3. Conduct Surveys</p> <p>4. Review External evaluator's assessment</p>
<p>Year 3</p> <p>1. Conduct a full program study of the web-based, industry-guided E-PAP in the Biotechnology PSM Program</p> <p>2. Conduct a pilot study of the web-based, industry-guided E-PAP project in the Environmental Management PSM program</p> <p>3. Develop and digitize resources for the model and share them with other PSM programs</p>	<p>1. Review student evaluations</p> <p>2. Conduct surveys</p> <p>3. Review External evaluator's comments</p> <p>4. Conduct Interviews</p> <p>5. Collect Institutional data</p> <p>6. Determine participation level</p> <p>7. Determine number and type of resources</p> <p>8. Determine number and type of resources</p> <p>9. Estimate cost associated with each resource</p>
<p>Year 4</p> <p>1. Continue to create and modify sharable resources for the model</p> <p>2. Organize and attend meetings/symposia to disseminate the model and the resources</p> <p>3. Combine and analyze the data collected from the various studies over the 3 year period</p>	<p>1. Determine number of online resources</p> <p>2. Determine need for the resources</p> <p>3. Estimate cost associated with the development</p> <p>4. Assess audience interest at meetings</p> <p>5. Determine number of meetings</p> <p>6. Categorize types of meetings</p> <p>7. Conduct surveys</p> <p>8. Review E-PAP performance data</p> <p>9. Review external evaluator's comments</p> <p>10. Collect Institutional data</p>

Rana Khan

EDUCATION

- Ph.D. Molecular and Cell Biology, December 1999
University of Maryland, College Park, MD
- M.S. Biochemistry, August 1989
Tulane University, New Orleans, LA
- M.S. Chemistry, May 1985
Indian Institute of Technology, New Delhi, India

EXPERIENCE

July 2006-Present

Associate Professor and Program Director
Biotechnology Studies, Information and Technology Systems
University of Maryland University College, Adelphi, MD

Administrative duties

- Recruitment and development of quality faculty
- Counseling and advising students in the graduate program
- Mentoring faculty
- Identifying and pursuing funding opportunities in biotechnology education
- Pursuing collaboration opportunities, nationally and internationally
- Serving on various Committees
- Developing strategies for enhancing program quality and visibility
- Providing networking and career development opportunities to students

Teaching duties

- Development of new courses and syllabi
- Development of learning tools to enhance courses in Biotechnology
- Teaching web-based, face-to-face, and practicum courses in the Biotechnology Studies Program

September 2003-June 2006

Assistant Professor and Program Director
Biotechnology Studies, Information and Technology Systems
University of Maryland University College, Adelphi, MD

August 2001-August 2003

Adjunct Assistant Professor
Biotechnology Studies, Information and Technology Systems
University of Maryland University College, Adelphi, MD

January 2000-August 2003

Postdoctoral Research Associate
Soybean Genomics and Improvement Lab
USDA Beltsville Area Research Center, Beltsville, MD

August 1994-December 1999

Doctoral Student and Teaching Assistant
Molecular and Cell Biology Program, University of Maryland, College Park, MD

January 1991-November 1991

Researcher
Virology Lab, Dept. of Microbiology, SIU, Carbondale, IL

August 1985-August 1989

Research Fellow
Department of Biochemistry, Tulane University School of Medicine, New Orleans, LA

Robert G. Beauchamp
University of Maryland University College
The Graduate School of Management and Technology

EDUCATION

Ph.D. - Geology/Geochemistry
The University of Maryland, College Park, MD,

U.S. Navy Graduate Study Fellowship, Harvard University
Department of Geology, Cambridge, Massachusetts,

M.S. - Geology, George Washington University,
Washington, D.C

B.A. - Geology, George Washington University,
Washington, D.C., 1966.

PROFESSIONAL EXPERIENCE

10/93-Present -- The University of Maryland University College (UMUC)
Collegiate Professor/Director, The Master of Science Program in Environmental Management:
Responsible for managing and developing the Master of Science degree program in Environmental Management and the Energy Resources Management & Policy Development track at the University of Maryland University College (UMUC)

7/90-11/93 -- Waste Management Inc. (formerly Waste Management of North America, Inc.)
Environmental Programs Manager: Managed a multi-disciplinary team of principal investigators, environmental attorneys, and public relations experts. Projects included remediation of hazardous waste sites (including landfills), environmental assessments, groundwater quality investigations, facility site selection, and development of biodiversity management plans.

9/74-9/84 -- U.S. Department of the Interior, Washington, D.C.
Senior Geologist/Program Manager: Managed multi-disciplinary scientific projects nationwide to identify and evaluate environmental impacts associated with energy and mineral resource development. Ensured that information was included in Impact Statements and decision documents to satisfy requirements of the National Environmental Policy Act. Retired from federal service.

10/67-8/74 -- U.S. Naval Oceanographic Office, Department of The Navy, Suitland, MD.
Geologist: As team leader for environmental research, conducted national and international research on the dispersion of contaminants in coastal zones as a result of U.S. navy activities.

PROFESSIONAL AFFILIATIONS:

Founder and President (9/90-10/93) - The Atlanta Geological Society
The Clay Minerals Society
The National Association of Environmental Professionals
The Geological Society of Washington

PROFESSIONAL CERTIFICATIONS:

Professional Geologist # 541 - Delaware
Professional Geologist # 2073 - Tennessee



8713 Key West Avenue, Suite 100
Rockville, MD 20855
240-243-4026
www.techcouncilmd.com
April 30, 2008

Dr. Rana Khan
Graduate School
University of Maryland University College
3501 University Boulevard East
Adelphi, MD 20783

Dear Dr. Khan,

As Executive Director of the MdBio, a Division of the Tech Council of Maryland (TCM) and on behalf of my organization, I am pleased to support the University of Maryland University College in its grant application to the U.S. Department of Education, Comprehensive Program under the Funds for Improvement of Post secondary Education (FIPSE) grant.

The project proposed by UMUC focuses on enhancing the quality of a Professional Science Master's programs through the development and dissemination of a web-based Guided Professional Action Plan (e-PAP) that is threaded through the course of a Professional Science Master's (PSM) degree program. Upon entering a PSM program each student will be provided an opportunity to reflect upon and document their professional goals and specific actions that the student plans to take to move toward and achieve these goals. These web-based PAP forms will be reviewed by industry mentors, who will offer suggestions and guidance to assist the student successfully, navigate through the program and identify the best career opportunity. By partnering with UMUC on this project we hope to develop a relationship that will benefit both our members and UMUC students.

TCM/MdBio is an organization that has always had close ties with academia through a variety of educational projects. It consists of hundreds of member companies from the Maryland area that represent both Life Sciences and Information technology industries. The mission of TCM/MdBio is to support and advance Maryland's bioscience industry. Our areas of emphasis include corporate and business development, networking and community building, education and workforce development, advocacy and communications. Our goal is to create an environment where bioscience businesses can collaborate, grow and succeed.

As a strong supporter of this proposal, TCM/MdBio will assist UMUC in building the mentor pool for this project by tapping into its member companies. We will also participate in the marketing of this project and partaking in some of the workshops and symposia that will be organized to disseminate this project. We will also identify companies from our membership list interested in providing capstone projects for the students.



TCM/MdBio looks forward to a collaborative and sustained working relationship with you and the University of Maryland University College in providing these mutually beneficial opportunities to companies in Maryland.

For contact or any questions please contact me at (b)(6)

Sincerely,

Richard A. Zakour, PhD
Executive Director
MdBio and MdBio Foundation
Tech Council of Maryland



WOMEN IN BIO

Innovative Entrepreneurs, Executives, and Scientists

April 29, 2008

Dr. Rana Khan
University of Maryland University College
Graduate School
3501 University Boulevard East
Adelphi, MD 20783

Dear Dr. Khan,

Women In Bio (WIB) supports your efforts to provide this innovative program to enhance the quality of the Professional Science Master's degree. This forward-thinking program helps students focus on their goals. Students can achieve their goals more when they express them to others. I like the mechanism for teaming a mentor with a student by having the mentor select which student they would like to help. By having the mentor pick the mentee, the mentor is more likely to be committed to mentoring the student.

WIB has been involved in several of UMUC's career development programs. The content of the events and speakers have been of the highest caliber and the students seemed to benefit greatly. Women In Bio is proud to be associated with UMUC and its programs.

Sincerely,

Robbie Melton

Robbie Melton
President

PO Box 34043, Bethesda, MD 20827

Phone: 703.819.7647 email: womeninbio@comcast.net

website: www.womeninbio.org

Women In Bio is funded in part by Biotechnology Industry Organization, Maryland Dept. of Business and Economic Development Miles & Stockbridge, P.C., RCM&D, WilmerHale, and UMBC ACTIVATE



DEPARTMENT OF ECONOMIC DEVELOPMENT

Isiah Leggett

County Executive

Pradeep Ganguly

Director

Dr. Rana Khan
Associate Professor and Program Director
Biotechnology Program
Graduate School of Management and Technology
University of Maryland University College
3501 University Boulevard East
Adelphi, MD 20783

April 23, 2008

Dear Dr. Khan,

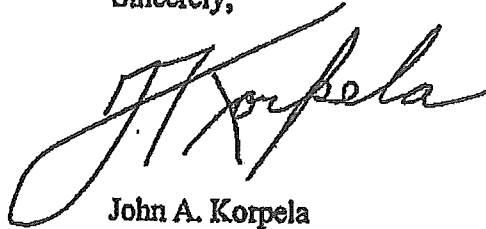
The Montgomery County Business Innovation Network (Montgomery County Department of Economic Development) is pleased to support the University of Maryland University College in its application to the U.S. Department of Education, Comprehensive Program under the Funds for Improvement of Post secondary Education (FIPSE) grant. Business Innovation Network founded by the Montgomery County Department of Economic Development is comprised of four business innovation centers which house over a 100 young technology companies. Companies represent a wide spectrum of advanced technology industries, including life sciences, information and communication technology, biotechnology, etc.

Montgomery County Business Innovation Network welcomes this opportunity to collaborate with Biotechnology Studies Graduate Program at UMUC. We hope that the collaboration of Business Innovation Center companies and graduate students will be mutually beneficial and will provide valuable experience and outcomes both to students and entrepreneurs. As a part of this partnership, we will support creating a pool of industry mentors from several of innovation network companies. Mentors will commit certain amount of time per semester to guide new students through the program via a professional action plan. We will also identify companies interested in participating in the student capstone projects. We will actively participate with UMUC in informational, training and dissemination workshops and symposia related to this project.

The Montgomery County Business Innovation Network looks forward to a collaborative, working relationship with you and the University of Maryland University College in providing these mutually beneficial opportunities to companies in Montgomery County, Maryland.

Please contact Nouné Sekhpossian at (b)(6) or noune.sekhpossian@montgomerycountymd.gov for any questions or additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Korpela". The signature is fluid and cursive, with a large loop at the end.

John A. Korpela
Manager
Business Innovation Network
Montgomery County Department of
Economic Development

References Cited

- Benderly, Beryl. (2008). *Mastering the Job Market*. Science. March 7, 2008
- Campbell, T. A., & Campbell, D. E. (1997, December). Faculty/student mentor program: Effects on academic performance and retention. *Research in Higher Education*, 38, 727-742.
- Christensen, K. and Rundus, D. (2003). The capstone senior design course: an initiative in partnering with industry, 33rd Annual Frontiers in Education, pp. S₂B-17
- Kumar, A, Horton, R., Munro, D, and Sargent, G. (2002). Lessons from Building an Academic-Industry Partnership Consortium: A Framework for Development. IACIS pp. 355-361
- Levinson, D. J. (1978). *The seasons of a man's life*. New York: Knopf.
- Lynch, Carol B. and Babco, Eleanor L.. (2007). *A Look at the Professional Science Master's Degree*, in Septmeber/October issue of ACS's in Chemistry, from http://sciencemasters.com/portals/0/pdfs/PSM_InChemistryArticle.pdf
- Miller, T. E., Neuner, J. L., & Glynn, J. (1988). Reducing attrition: A college at work in research and practice. *NASPA Journal*, 25(4), 236-243.
- Oka, Paul and Prey, Jane. (2007). *Overview of an Industry/Academia Partnership for Furthering the Advancement of Pen-Based Learning Technology in Research and Education*. First Intl. Workshop on Pen-Based Learning Technologies, pp. 1-4
- Strauss, Valerie. (2008). *Area Schools Heed Science Industry's Warning*. From The Washington Post, January 28, 2008.
- Walker, S. C., & Taub, D. J. (2001). Variables correlated with satisfaction with a mentoring relationship in first-year college students and their mentors. *Journal of The First Year Experience and Students in Transition*, 13(1), 47-67
- Wallace, D., & Abel, R. (1997). *Clearing a path for success: Deconstructing borders in higher education through undergraduate mentoring*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Albuquerque, NM (ERIC Document Reproduction Service No. ED 415 812.)

Year 1 Budget

Item	Requested	In-Kind	Total
1. Personnel			
Rana Khan (15%)	\$13,994		\$13,994
Yulia Nemchinova (30%)	\$35,604		\$35,604
Heloisa Siffert (30%)	\$34,434		\$34,434
Robert Beauchamp (5%)		(b)(4)	
Jim Chen (5%)			
Total Personnel	\$84,032		
2. Fringe Benefits			
26.5% of salary line	\$22,268	(b)(4)	
Total Fringe Benefits	\$22,268		
3. Travel			
Annual Project Director's Meeting in Washington DC for 3 days/2nights/2 people	\$3,000		\$3,000
Total Travel	\$3,000		\$3,000
4. Equipment			
Total Equipment			
5. Supplies			
Training Materials -- notebooks, photocopying	\$1,000		\$1,000
Marketing flyers	\$500		\$500
Total Supplies	\$1,500		\$1,500
6. Contractual			
Meeting w/Advisory Broad/project partners	\$1,500		\$1,500
External Evaluator (Contractor 32 hours per month 3 months x \$100/hour)	\$9,600		\$9,600
Software Programmer (\$85/hour x 120 hours)	\$10,200		\$10,200
Total Contractual	\$21,300		\$21,300
7. Construction			
Total Construction			
8. Other			
Total Other			
9. Total Direct Costs	\$132,100	(b)(4)	
10. Indirect Costs (54% of salaries)	\$45,377		
11. Total Costs	\$177,477		

Year 2 Budget

Item	Requested	In-Kind	Total
1. Personnel			
Rana Khan (15%)	\$14,554		\$14,554
Yulia Nemchinova (30%)	\$37,028		\$37,028
Heloisa Siffert (30%)	\$35,811		\$35,811
Robert Beauchamp (5%)		(b)(4)	
Jim Chen (5%)			
Total Personnel	\$87,393		
2. Fringe Benefits			
26.5% of salary line	\$23,159	(b)(4)	
Total Fringe Benefits	\$23,159		
3. Travel			
Annual Project Director's Meeting in Washington DC for 3 days/2nights/2 people	\$3,000		\$3,000
Total Travel	\$3,000		\$3,000
4. Equipment			
Total Equipment			
5. Supplies			
Training Materials -- notebooks, photocopying	\$1,000		\$1,000
Total Supplies	\$1,000		\$1,000
6. Contractual			
Meeting w/Advisory Broad/project partners	\$1,500		\$1,500
External Evaluator (Contractor 32 hours per month 3 months x \$100/hour)	\$9,600		\$9,600
Total Contractual	\$11,100		\$11,100
7. Construction			
Total Construction			
8. Other			
Total Other			
9. Total Direct Costs	\$125,652	(b)(4)	
10. Indirect Costs (54% of salaries)	\$47,192		
11. Total Costs	\$172,844		

Year 3 Budget

Item	Requested	In-Kind	Total
1. Personnel			
Rana Khan (10%)	\$14,379		\$14,379
Yulia Nemchinova (20%)	\$21,394		\$21,394
Heloisa Siffert (20%)	\$20,691		\$20,691
Robert Beauchamp (10%)		(b)(4)	
Jim Chen (10%)			
Total Personnel	\$56,464		
2. Fringe Benefits			
26.5% of salary line	\$14,963	(b)(4)	
Total Fringe Benefits	\$14,963		
3. Travel			
Annual Project Director's Meeting in Washington DC for 3 days/2nights/2 people	\$3,000		\$3,000
Total Travel	\$3,000		\$3,000
4. Equipment			
Total Equipment			
5. Supplies			
Training Materials – notebooks, photocopying	\$1,000		\$1,000
Total Supplies	\$1,000		\$1,000
6. Contractual			
Meeting w/Advisory Broad/project partners	\$1,500		\$1,500
External Evaluator (Contractor 16 hours per month 7 months x \$100/hour)	\$11,200		\$11,200
Total Contractual	\$12,700		\$12,700
7. Construction			
Total Construction			
8. Other			
Total Other			
9. Total Direct Costs	\$88,127	(b)(4)	
10. Indirect Costs (54% of salaries)	\$30,491		
11. Total Costs	\$118,618		

Year 4 Budget

Item	Requested	In-Kind	Total
1. Personnel			
Rana Khan (10%)	\$14,954		\$14,954
Yulia Nemchinova (20%)	\$22,175		\$22,175
Heloisa Siffert (15%)	\$20,443		\$20,443
Robert Beauchamp (10%)		(b)(4)	
Jim Chen (10%)			
Total Personnel	\$57,572		
2. Fringe Benefits			
26.5% of salary line	\$15,257	(b)(4)	
Total Fringe Benefits	\$15,257		
3. Travel			
Annual Project Director's Meeting in Washington DC for 3 days/2nights/2 people	\$3,000		\$3,000
Total Travel	\$3,000		\$3,000
4. Equipment			
Total Equipment			
5. Supplies			
Training Materials -- notebooks, photocopying	\$1,000		\$1,000
Total Supplies	\$1,000		\$1,000
6. Contractual			
Meeting w/Advisory Broad/project partners	\$1,500		\$1,500
External Evaluator (Contractor 16 hours per month 12 months x \$100/hour)	\$19,200		\$19,200
Total Contractual	\$20,700		\$20,700
7. Construction			
Total Construction			
8. Other			
Organize and deliver workshops to disseminate model and results	\$2,000		\$2,000
Total Other	\$2,000		\$2,000
9. Total Direct Costs	\$99,529	(b)(4)	
10. Indirect Costs (54% of salaries)	\$31,089		
11. Total Costs	\$130,618		