COMMITTEE ON RESEARCH

Date submitted: April 11, 2013
Designation code: 2012-2013 CR 7

TO: The Academic Senate
FROM: The Committee on Research
SUBJECT: 12-13 CR 7: Proposal for the Center for Student Research
PURPOSE: For information to the Academic Senate

BACKGROUND INFORMATION:
At the April 11 meeting, CR members discussed the Center for Student Research proposal as presented by Jason Singley. The center’s key goal is to facilitate student participation in faculty-mentor out-of-class work on scholarly activity related to their discipline. The proposal was approved unanimously.

ACTION REQUESTED:
That the Executive Committee and Academic Senate approve the recommendation from the Committee on Research to refer the Center for Student Research proposal to the Academic Senate as an information item.
Proposal for a CSUEB Center for Student Research

This proposal is to consider the approval of a CSUEB Center for Student Research. This would be a University center and impact students and faculty from all four colleges. The Association of American Colleges and Universities and other higher education researchers have identified student research and creative activities as key high impact practices that increase student engagement and success in college. The CSUEB Center for Student Research will work to expose more CSU East Bay students to these high impact practices. The central mission of the center will be to facilitate student participation in faculty-mentored out-of-class work on scholarly activity related to their discipline. This proposal requests the establishment of the center for an initial period of five years.

1. Documentation showing clear support for the academic units involved.

Appendix A contains letters of support from faculty.

2. Letter of endorsement from the appropriate official.

Appendix B contains a letter of support from Dr. James Houpis, Provost and Vice President of Academic Affairs.

3. Statement of Purpose

The purpose of the proposed CSUEB Center for Student Research is to promote and support out-of-class, faculty mentored, scholarly student projects. Creation of a center to oversee student research will institutionalize student research at CSU East Bay and will be used as a vehicle to help promote a campus culture that is supportive of student research.

The Center will manage existing student research programs and raise funds to expand student participation in research and creative activities while ensuring that the programs are positively impacting all of CSU East Bay’s diverse student body.

Through existing and future funded programs, the Center will incentivize student participation by providing stipends and support student work through grants for research activities, supplies and travel to disseminate research results. The Center will host a regular workshop series to help students develop non-cognitive skills (e.g. time management, effective presentation) critical to success in research. Student participation in the activities of the Center will create opportunity for peer support by bringing together students with similar goals and help the students identify themselves as scholars who create knowledge in their disciplines.
4. Description of how the center supports the mission of CSUEB.

The activities of the Center will directly support the mission of CSUEB. In particular, the Center will support East Bay’s diverse student body’s participation in intellectually rich out-of-class learning experiences that will prepare them for the work of their discipline. The scholarly projects they work on as students may have a direct impact on our local, state, national, or global communities, and the skills and knowledge that student develop while working on these projects will enable them to have a positive impact on society at an early stage in their college careers.

The work of the Center will also be aligned to help students meet all of the University’s institutional learning outcomes. In particular, participation in the Center’s activities will encourage and enable students to:

- think critically and creatively and apply analytical and quantitative reasoning to address complex challenges and everyday problems;
- communicate ideas, perspectives, and values clearly and persuasively while listening openly to others;
- work collaboratively and respectfully as members and leaders of diverse teams and communities;
- demonstrate expertise and integration of ideas, methods, theory and practice in a specialized discipline of study.

By participating in a research project, students will develop expertise within their discipline of study, they will work as a part of a team that will include their faculty mentor and often other students, they will need to think critically and creatively to solve complex problems, and they will learn to communicate their ideas to others. Many of these skills will be developed in the context of the individual research projects students are working on. Additionally, the Center for Student Research will host regular workshops that address generalizable skills, such as effective communication and collaboration.

5. Identification of similar centers in the region.

Administration of student research programs varies within the CSU. Some campuses (San Francisco, Sonoma) distribute the administration among colleges or individual departments, while others (Monterey Bay, San Marcos) have centralized offices or centers. The Undergraduate Research Opportunities Center at CSU Monterey Bay (http://uroc.csumb.edu) is an example of a successful centralization of the administration of student research in the CSU.
6. Description of planned activities.

The primary mission of the Center is to facilitate student participation in faculty mentored research and creative projects appropriate to the student’s discipline. These student projects will take place in labs and offices across campus. The director and staff of the Center will support this work with the following activities:

- Recruit students to participate in funded research projects, such as LSAMP and the Research Fellowships.
- Evaluate student applications for research fellowships and review quarterly progress reports.
- Develop new sources of funding for student research. This will include writing grants with the sole intention of supporting student research, collaborating with faculty who are writing disciplinary grants to include support for student research, and working with University Advancement to solicit funds from private and corporate donors.
- Develop inter-institutional partnerships to create off-campus research projects for East Bay students.
- Collaborate with other campus units to support student research.
- Hold regular workshops to support students working on research projects.
- Host an annual student research symposium.
- Coordinate the campus participation in the annual CSU Research Competition.
- Provide support grants for student research projects (supplies, equipment, printing, archival fees, travel).
- Work to broaden student involvement in research in disciplines with low participation and develop discipline specific models of faculty mentored research.
- Develop and implement an assessment program to evaluate the efficacy of student research experiences.
- Promote student involvement in research with faculty, and assist students with locating an appropriate mentor.

7. Identification of advisory board members.

The advisory group will be composed of 8 faculty members with at least one faculty member from each of the four colleges and will include the Center director. Faculty
selected to serve on the advisory board will have a background of mentoring students on
out-of-class scholarly projects.

8. Organizational structure of the center.

a – Director will report to the AVP of Research and Professional Development or the
administrator overseeing research on campus.
b – Initially the Center will rely on staff support from the Office of Research and Sponsored
Programs. As the program grows and additional funding becomes available, an
administrative assistant will be hired for the center.
c – At start-up the center will not employ program coordinators. As the program grows,
coordinators will be added to help manage student research placements and develop and
implement a student training and professional development component.


The Director currently reports to the Associate Provost, but it is anticipated that eventually
the Center will report to the AVP of Research and Professional Development. The Director is
responsible for program implementation, managing the budget, and overseeing staff. The
Director will solicit input on strategic planning from the advisory board.

10. Name of the starting director.

The starting director will be Dr. Jason Singley, Associate Professor of Physics and Faculty
Associate for Research.
11. Description of faculty and student involvement.

Participation in the Center will be open to all faculty members. The primary way in which faculty will participate in the center will be through mentoring students in a scholarly project. The advisory group along with the director will develop strategies to engage faculty from all disciplines and encourage them to mentor students.

Workshops and the student research symposium run by the Center will be open to all students. These events will be broadly advertised. Research fellowships, stipends, and support and travel grants will be awarded on a competitive basis. All students will be allowed to apply for these programs, unless specific restrictions are imposed by the funding source.

12. Procedure for how new faculty will be selected to participate.

The board of directors will be selected from faculty members who have a track record of engaging students in research or other scholarly activities. Faculty participation in the Center will mainly be through mentoring students. The Center will have programming to support all students working on research or other scholarly work and therefore the Center will serve all faculty members who are willing to mentor students.

13. Procedure for how faculty will be removed.

Faculty will serve on the advisory board at the discretion of the Associate Vice President for Research and Professional Development with a normal term of two years that may be renewed.

14. Description of the method for selection and evaluation of the director.

The Associate Vice President for Research and Professional Development will appoint the Director. Selection criteria will include past work with students in disciplinary research, a track record of external funding, and appropriate management and program coordination experience. The advisory board will annually evaluate the Director during the spring academic term.

15. Description of the center’s commitment to diversity in its activities and appointments.

A key goal of the Center is to support student participation in research particularly among groups that are underrepresented within their particular discipline. One of the Center’s funding sources is a grant (LSAMP) with the goal of increasing the participation of individuals who have faced social, educational, or economic barriers to careers in the fields of Science, Technology, Engineering, and Math (STEM). At CSU East Bay, this is accomplished by providing stipends and funding for supplies to qualified students to work on a faculty mentored research project. The program also provides workshops on graduate
school, summer internships, and science communication to participants.

In all of its programming, the Center will be committed to supporting the intellectual and professional growth of the diverse student body of CSU East Bay. The director will track the ethnic and racial diversity of participants in the Centers activities and, when needed, work with the advisory board to develop strategic outreach efforts to recruit students from groups who are underrepresented.

16. Business plan that specifies the targeted audience, the marketing strategy, resources required, and how resources are used.

The Center’s targeted audience is all CSU East Bay students (both graduate and undergraduate) that wish to have an out-of-class experience in which they can engage in the scholarship appropriate to their field of study. Students will learn of the opportunities offered by the Center through a variety of sources. These include a center webpage, advertisements in the campus newspaper, email announcements, and faculty outreach. The latter will be particularly important, and the director will attend college and department meetings in an effort to inform faculty about the opportunities for their students.

The next item shows the center’s initial income and expenditures. One of the director’s responsibilities will be to write grants and fund raise to support the work of the Center.

17. Projected budget showing where funds will be raised and where they will be disseminated.

<table>
<thead>
<tr>
<th>Type of expense</th>
<th>LSAMP</th>
<th>A2E2</th>
<th>Total</th>
</tr>
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<tr>
<td>Stipends</td>
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<tr>
<td>Supplies</td>
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<tr>
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<tr>
<td>Total</td>
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<td>$100,000</td>
<td>$140,000</td>
</tr>
</tbody>
</table>

a – Stipends and supplies for research projects are grouped as a single budget item for the LSAMP grant.

b – Current costs associated with administration of the A2E2 funds are covered by Academic Affairs. This includes release time for a faculty member to run the program as well as staff support from the Office of Research and Sponsored Programs.
Initially the Center will be funded by the Louis Stokes Alliance for Minority Participation (LSAMP) grant from the National Science Foundation and the Chancellor’s office, and local Academic Access, Enhancement and Excellence (A2E2) fees. The director will pursue state and federal grants to support student research as well as work with campus faculty to include funding for student research in disciplinary grants. Additionally, the director will work with University Advancement to solicit donations to support student research from individuals and corporations.

The majority of funding coming in to the Center will be used to provide students stipends and fellowships to incentivize their participation in research projects. Other funds will be used for supplies and related costs of conducting the research projects. The Center will encourage students to present their work at professional conference by funding travel grants. The Center director will receive 8 WTU per quarter for running the Center, the cost of which will be covered by Academic Affairs. Additionally, staff support for the center will initially come from the Office of Research and Sponsored Programs.

18. Explanation of how space will be allocated and where the center will be located.

Much of the work related to the Center will be conducted across campus as students work with individual faculty mentors. The administrative offices of the Center will be housed in the Office of Research and Sponsored Programs. Workshops related to the Center’s programming will be scheduled in University classrooms.
March 12, 2013

Dear Dr. Singley,

I am writing to enthusiastically support the proposed Center for Student Research. As the Director of the CSUEB Louis Stokes Alliance for Minority Participation (LSAMP) program I wholeheartedly agree that out-of-classroom experiences, including meaningful, undergraduate research experiences working with Faculty mentors can have significant impacts on student’s lives. The LSAMP program is funded by the NSF to provide just such opportunities to under-represented minority students in STEM disciplines, and this is a much needed extension of the LSAMP program to include all CSEUB students across all disciplines.

I am in full support of the creation of a Center for Student Research. As Director of the LSAMP program, I look forward to working and collaborating with the center to support student’s research and creative activities in the future.

Sincerely,

Erik Helgren
Director of the CSUEB LSAMP Program
Assistant Professor, Department of Physics
March 29, 2013

Dear Jason,

Thank you for sharing with me information about the proposal for the creation of a Center for Student Research. I think that this is a wonderful idea and wholeheartedly support the development of this center and its associated activities!

As you know, I served as the Director for the CSUEB McNair Scholars Program for the last 1.5 years of its run and I saw firsthand how involving undergraduate students in inquiry-based investigations positively impacted the students as well as the faculty serving as their research advisors. Having an opportunity to engage in hands-on research outside of the classroom and in direct contact with a faculty member provides students with the chance to gain a deeper understanding of the concepts that they have learned in their classes. In addition, being able to discuss their research with others either informally or during an oral or poster presentation can provide students with greater confidence and self esteem as well as a chance to build up their oral and written communication skills. Having been a faculty member and a thesis advisor to a number of graduate students for 12.5 years, I also know how important research is to the deepening of a Masters student’s knowledge base and expansion of their skill set. Finally, having this kind of opportunity to engage in research and/or creative activities can be very helpful in aiding students in attaining a job or being accepted into a graduate or pre-professional program after their graduation from CSUEB.

With all of this said, I look forward to the formalization of this Center for Student Research. I think this is an important initiative and one that will provide our students with an extraordinary opportunity to more deeply explore their field, strengthen their character and even do a little self-reflection. I am happy to support this program in any way I can. Please do not hesitate to ask!

Sincerely,

Erica L. Wildy
Associate Professor and
Former Director of the CSUEB McNair Scholars Program
Department of Biological Sciences
California State University, East Bay
25800 Carlos Bee Blvd.
Hayward, CA 94542
Dated: March 22nd, 2013

From: Nidhi Mahendra, Ph.D., CCC-SLP
Associate Professor & Department Chair

Ref: Letter of support for CSUEB Center for Student Research

Dear Jason,

I would like to thank you for sharing with me the proposal for the creation of a Center for Student Research at CSUEB. I was delighted to review the proposal and to write this letter in strong support for this initiative. In my experience, personalized faculty mentoring of student research projects significantly and positively impacts a student’s persistence, success, and academic goal-setting in their careers at CSUEB and beyond.

In the last 7 years as a productive faculty researcher, I have actively mentored nearly 18 undergraduate and graduate researchers at CSUEB. Every one of these students completed their projects successfully; presented at local, state, or national conferences; and 8 of these student researchers went on to author peer-reviewed scientific articles in journals. One of these students currently is a third year doctoral student, and a second is applying to Ph.D. programs next year. These limited data just from my experience speak to the empowerment that students experience from participating in research. They begin with shaky confidence and anxiety and blossom to impressive scholars that proudly share results at the podium and in print with faculty. I am currently supporting the research of two student researchers who have received initial funding from the Center for Student Research. I have witnessed first-hand the impact of this unique opportunity for our students to enhance their caliber as researchers while supporting and contributing to scholarship in varied disciplines.

A Center for Student Research formalizes CSUEB’s institutional commitment to promoting student research and is long overdue on our campus. I applaud you for taking the initial steps to begin to realize this vision and wish you the very best in bringing this effort to fruition. I look forward to working with the Center actively to support student’s research and creative activities in the future. Please call on me to advocate for this investment in our students’ future at any time.

In support,

[Signature]

Nidhi Mahendra
March 13, 2013

Dr. Jason Singley
Associate Professor, Department of Physics
Faculty Associate for Research, Office of Research and Sponsored Programs
California State University, East Bay
25800 Carlos Bee Boulevard
Hayward, CA 94542

Jason –

Thanks for including me in the discussion about the creation of a Center for Student Research. I love the idea of a Center dedicated to promoting this experience for undergraduate and graduate students at CSU East Bay. I am very excited for our students in the History Department to take advantage of the resources that this center could offer in terms of training and funding. Research is really at the core of a history major at CSU East Bay—learning to research in primary sources and evidence, and to write analytical pieces on what they've found and how it addresses our current notions of "truth" is one of the central skills a history major is expected to learn. Indeed, this idea is directly found in our Department’s Student Learning Outcomes. I am thrilled to see university resources directed at training our students to be "scholars who create knowledge in their discipline."

I wholeheartedly support the development of a Center for Student Research and look forward to participating in any way that would be helpful.

Regards,

Linda L. Ivey, Ph.D.
Associate Professor of History
Interim Chair, Department of History
Coordinator of the Public History Program
California State University, East Bay
March 12, 2013

Jason Singley, Ph D
Associate Professor, Department of Physics
Faculty Associate for Research,
Office of Research and Sponsored Programs
California State University, East Bay
(510) 885-3482
http://www.sci.csueastbay.edu/~jsingley/

Dear Dr. Singley,

Thank you for sharing with me the proposal for the creation of a Center for Student Research. In my experience, student scholarly projects offered through this center have significant positive impact on students’ academic, personal and professional successes. I am in full support of the creation of a Center for Student Research. I look forward to working with the center to support students’ research and creative activities in the future.

Sincerely,

Kimberly Kim, RN, Ph D
Professor
Department of Nursing and Health Sciences
Dear Members of the Committee on Research and Academic Senate,

I am writing this letter in strong support of the proposed Center for Student Research. Involvement of students in research activities is one of the most singularly transformative experiences possible. To provide the greatest opportunities for our diverse student population to reach their highest potentials, creating a supportive environment at CSU East Bay for student research to flourish is of the utmost importance. The impact of student research on recruitment, retention, and student engagement is well-documented. Furthermore, this Center will engage in activities in direct support of our University’s mission as well as facilitate the activities of students in all four colleges. The Center for Student Research will be enormously helpful in organizing, promoting, and finding mechanisms for support of student research.

I very much look forward to working closely and being involved in the Center for Student Research. I am confident this Center will become a truly distinctive part of our University that will impact many students for years to come.

Sincerely,

[Signature]

Derek F. Jackson Kimball
Associate Professor
Chair of the Department of Physics
2011-12 Outstanding Professor
California State University, East Bay
April 9, 2013

Re: Proposal for a Center for Student Research

Dear Professor Singley,

I support your proposal for a Center for Student Research. The center can have a positive impact on current degree coursework at CSUEB. In doing so, the center will contribute to student success both inside and outside of the classroom. For example, the center can assist students to obtain necessary tools to conduct research in degree programs outside of CSUEB, as well as in the workplace. Overall, the Center for Student Research will benefit our students at CSUEB by helping them to better prepare themselves to compete with their colleagues from other academic institutions.

If you have any questions, please contact me at tammie.mosley@csueastbay.edu or 510-885-3316.

Thank you for sharing your proposal with me.

Sincerely,

Tammie X. Simmons-Mosley, Ph.D.
Associate Professor of Finance
Dear Jason,

I was exited to learn of the proposal for a Center for Student Research. Such a center has the potential for establishing a community of scholarship here on campus. Probably the most gratifying part of my work here at East Bay has been the work I have done with students in out-of-class projects. It is most rewarding to see their individual growth, expose them to the opportunities available, and watch them succeed in graduate school, professional school, and/or their careers. The potential for quality mentorship and faculty interaction for all of our students is one of the greatest strengths of our University, and I am in full support of all efforts on campus which strengthen and foster these opportunities. I look forward to working with the Center for Student Research in the future!

best wishes,
danika

Danika L. LeDuc, Ph.D.
Associate Professor
Department of Chemistry & Biochemistry
California State University, East Bay
510-885-3463
Dear Jason,

Thank you for sharing with me the proposal for the creation of a Center for Student Research. In my experience out-of-class student scholarly projects have a significant positive impact on student's academic success at CSU East Bay. I am in full support of the creation of a Center for Student Research. I look forward to working with the center to support student's research and creative activities in the future.

Sincerely,

Michelle Tellez, RN. MS. PhD.
Assistant Professor
Concord Campus Level 1 Coordinator
Department of Nursing and Health Sciences
California State University East Bay
Dear Jason,

Thank you for sharing with me the proposal for the creation of a Center for Student Research. In my experience out-of-class student scholarly projects have a significant positive impact on student’s academic success at CSU East Bay. I am in full support of the creation of a Center for Student Research. I look forward to working with the center to support student’s research and creative activities in the future.

Sincerely,

Professor Chris Baysdorfer
Department of Biological Sciences
California State University, East Bay
Hayward, CA 94542
510-885-3459
chris.baysdorfer@csueastbay.edu
Dear Jason,

Thank you for sharing with me the proposal for the creation of a Center for Student Research. In my experience out-of-class student scholarly projects have a significant positive impact on student’s academic success at CSU East Bay. I am in full support of the creation of a Center for Student Research. I look forward to working with the center to support student’s research and creative activities in the future.

Sincerely,

[Signature]
April 8, 2013

To the Committee on Research,

It is my pleasure to submit a letter in support of Jason Singley’s proposal that CSU East Bay create a Center for Student Research.

Dr. Singley has been working tirelessly during this academic year to formalize our efforts in the Student Research Area and has been successful in creating Research Fellowships that enlarge the number of students able to participate with faculty in their laboratories, offices, and field settings.

It greatly benefits our students to have opportunities to engage in research, get real world experience, and produce results. These opportunities enhance their studies, make them better prepared for graduate work, and give them a leg-up in the job market. Many studies have shown that students who work with faculty on research projects are much more likely to graduate, do well in post-graduate settings, and understand the value of all that a university education can offer them.

As an institution, having a program of formalized student research makes us eligible for grant opportunities and improves our chances of receiving funding from federal, state and private sources. Our student researchers are a point of pride and they have done well in competitions held by the CSU, they have presented at national conferences, and most recently one of our undergraduate researchers has received an NSF Graduate Fellowship.

Thank you, in advance, for giving this proposal to create a Center for Student Research your attention. I look forward to having a recognized Center at CSU East Bay.

Sincerely,

James Houpis
Provost and Vice President, Academic Affairs