

**Minnesota State University, Mankato
Strategic Priority Funding
Step 2: Invited Full Proposal**

Sub-Meet Use Only <u>12</u> Proposal Tracking Number

Proposal Name: **Bureau 507: student consulting center focusing on innovative solutions for big ideas and real world thinking**

Total Strategic Priority Funding Requested for Expenditure in FY15 (2014-2015) \$ 124,000

The proposed project supports the following 2010-2015 Strategic Priority: (Check all that apply)

- Global Solutions** - Change the world by collaboratively addressing our planet's most challenging problems.
- Applied Doctoral Institution** - Foster the thriving and robust academic culture of a university with applied doctoral programs.
- Extended Learning** - Greatly expand the reach of our extended learning programs.
- Campus of the Future** - Reinvigorate our physical home and build the campus of the future.
- Quality and Excellence** - Measure and continuously improve our work to ensure excellence in all that we do.

What Strategic Priority Action Item(s) from the University's 2010-2015 Strategic Plan does the proposed project address (http://www.mnsu.edu/planning/strategic_plan_progress_7.1_13.pdf)?

Promote Global Solutions

- *Prepare students to be innovative leaders in their professions and communities.*
- *Amplify our traditional mission and strengths in positive ways to magnify our future impact, both inside and outside higher education*
- *Lower the walls between academic disciplines and between academic and non-academic employees to create a dynamic crucible for teaching, learning and service to each other and the world.*

Embody Quality and Excellence

- *Develop a culture of continuous quality improvement*

Do the proposed project outcomes address any of the following Institutional Priority Measures?
If yes, check all that apply:

- Student Persistence and Completion
- Student Persistence and Completion for Students of Color
- Student Degree Completion
- Student Degree Completion for Students of Color
- Related Employment of Graduates

Are funds from any other sources needed to initiate and complete the project as proposed? (Check all that apply)

- Institutional Equipment \$ _____
- Repair and Replacement (R&R) \$ _____
- Departmental Funds \$ _____
- College or Divisional Funds \$ _____
- External/Grant Funds \$ _____
- Other: _____ \$ _____
- Other: _____ \$ _____

Proposal Contact Information and Review Signatures:

Primary Contact Name Dr. Cyrus Azarbod Campus Mailing Address WH273

Primary Email Address cyrus.azarbod@mnsu.edu Phone Number x5405

Please note:

- Upon notification of funding, the primary contact recipient will work with the Assessment and Evaluation Sub-Meet to prepare an assessment plan. Funds will only be released upon successful completion and approval of the assessment plan.
- A Mid-Year Report will be due January 12, 2015, and an Annual Report will be due June 30, 2015.

Primary Contact Signature Cyrus Azarbod /cv Date 1/15/2014

Co-Applicant Name(s) and Signature(s):

Dr. Scott Fee Dr. Scott Fee by Sward Date 1/15/2014

Dr. Christophe Veltsos [Signature] Date 1/15/2014

I have reviewed the following proposal:

Department Director/Chair Signature* [Signature] Date 1-15-14

Department Director/Chair Signature* _____ Date _____

Department Director/Chair Signature* _____ Date _____

Department Director/Chair Signature* _____ Date _____

Dean Signature* Dean Brian Martensen by Sward Date 1-15-14

Dean Signature* _____ Date _____

Dean Signature* _____ Date _____

Dean Signature* _____ Date _____

Division/Vice President Signature* [Signature] Date 1/15/14

Division/Vice President Signature* _____ Date _____

Division/Vice President Signature* _____ Date _____

RECEIVED

JAN 15 2014

Date Received by Institutional Research, Planning, and Assessment: [Signature]

(Deadline is January 15, 2014)

*Signatures needed for all affected units, departments and colleges. Attach additional cover/signature sheets as needed.

Assessment & Planning
Minnesota State University, Mankato

Strategic Priority Funding Proposal
Full Proposal: Step 2

(Please limit the proposal narrative and attachments to 10 pages)

Proposal Name: **Bureau 507: student consulting center focusing on innovative solutions for big ideas and real world thinking**

1. Provide a clear description of the project being proposed. (5 points)

Bureau507 will be a student-driven, faculty-mentored consulting enterprise providing regional businesses with cutting-edge services in technology, multimedia production and communication, while also providing student consulting teams with project-based learning experiences and a competitive hourly wage. Projects will include website/software/database development, technical writing/editing, usability testing, security reviews/audits, and multi-media design and production.

Bureau507 will be modeled after Buro302, a highly successful collaborative internship-like experience for HAN University students working on real-world, multi-disciplinary, projects for small businesses. We will make extensive use Buro302 expertise and lessons learned. Within a year of launch, Bureau507 will be a self-sustaining enterprise where students will be fully engaged in the customer recruitment process with the assistance of MSU's Small Business Development Center, including scoping and bidding the project, assembling the team, carrying out the work, and presenting the finished work to the customer in a lean and agile way. Bureau507 will select and train participating students. Participants will experience a learning/working environment distinguished by openness to continual learning, including learning from mistakes, and a focus on solving real-world problems.

Bureau507 is different from Project Maverick in many ways.

- Project Maverick has ONLY one major client, Thompson Router but Bureau507 can have any number of clients. Clients of Bureau507 can be any size small, medium, or large companies, can be privately owned, be state or federal agencies, or can be an internal unit from MSU-Mankato or other MnSCU institutions.
- Students working for Project Maverick perform testing for software/applications developed by Thompson Router software developer. The scope of their work is narrow and they operate under strict supervision. In contrast, Bureau507 can accept projects from any company, as long as the project is deemed feasible and the customer is willing to give students the flexibility to learn while doing, and that mistakes are part of the learning process. With Bureau507, students have the opportunity to get experience all phases of software development such as: feasibility study, developing proposal, bidding, project management, gathering facts and requirements, presenting the proposal and various deliverable to the client, design, programming, testing, post evaluation, documentation and maintenance. With Bureau507, students have the opportunity to be exposed to wide variety of projects from different organizations, and be engaged in cross-disciplinary teams (e.g. IT students working alongside students from graphical design, films study, business, communication, nursing, or engineering).

2. Identify the 2010-2015 Strategic Priority advanced by this project and explain the direct connection between the strategic priority and project. In addition, identify the Strategic Priority Action Item(s) [completed (green)/ in-progress (yellow)/ not yet started (red)] from the 2010-2015 Strategic Plan that the project will address (http://www.mnsu.edu/planning/strategic_plan_progress_7_1_13.pdf)?(20 points)

Our project aligns strongly with several MSU Strategic Priorities and Objectives.

MSU Strategic Priority: Promote Global Solutions

Strategic Objective: Prepare students to be innovative leaders in their professions and communities.

The hands-on, student-led nature of this project will provide students with opportunities to develop their leadership skills through exposure to and direct experience with problem solving, delivering IT-based solutions, project management, customer relationship management, and learning to bridge the communication gap between IT and industry.

Strategic Objective: Amplify our traditional mission and strengths in positive ways to magnify our future impact, both inside and outside higher education.

Bureau507 aligns closely with the Action Item (RED) to “Develop and implement curricular and co-curricular programs that encourage student, faculty and staff involvement in Global Solutions.” Students in Bureau507 will be working with faculty and staff mentors to develop global, IT-based solutions, for real-world customers. Bureau507 will allow students to integrate and apply concepts learned in the classroom into co-curricular student experiences. The exciting opportunities presented by the partnership with HAN University’s Buro302 will also provide our students with exposure to global projects.

Strategic Objective: Lower the walls between academic disciplines and between academic and non-academic employees to create a dynamic crucible for teaching, learning and service to each other and the world.

Bureau507 aligns closely with the Action Item to “Promote international partnerships, exchanges, and research” by providing a framework for inter-disciplinary collaboration among MSU students, faculty, staff, and that of HAN’s Buro302. Bureau507 and Buro302 have already begun discussions around sharing of projects across the continents. In January 2014, a delegation from MSU (Drs. Cyrus Azarbod and Scott Fee) will be visiting HAN to solidify this opportunity for collaboration.

MSU Strategic Priority: Embody Quality and Excellence

Strategic Objective: Develop a culture of continuous quality improvement.

The Bureau507 concept is grounded in the idea of continuous quality improvement. Customers and projects selected for implementation by Bureau507 student teams will specifically allow for student solutions to be refined over time and iterations, and mistakes will be encouraged as part of the learning process. Bureau507 experiences will seek to instill a culture of feasibility and innovation, one in which mistakes are part of the learning process, and with repeated opportunities for lessons-learned, resulting in continuous improvement.

Bureau507 also aligns with MnSCU goals and strategies, such as those of the **MnSCU Designing the Future: Minnesota State Colleges & Universities Strategic Plan 2010-2014**¹. The activities of Bureau507 bring together faculty and students, across disciplines, to work on real-world projects, in direct support of Strategic Direction 4, “Innovate to meet current and future educational needs” Goal

¹ Available at <http://www.mnscu.edu/media/publications/pdf/StrategicPlan2010-14onepagev8.pdf>

4.2, "Draw on the talents and expertise of faculty, staff, students and others to meet the challenges facing the system."

Finally, Bureau 507's application of curriculum to solving real-world problems aligns with MnSCU **Charting the Future** (CTF) vision, specifically Strategy 3, "Increase students' applied learning opportunities aligned with industry-recognized standards such as apprenticeships, work-related or on-the-job training, internships or dual training models" (as found in Recommendation 3, "Certify student competencies and capabilities, expand pathways to accelerate degree completion through credit for prior learning, and foster the award of competency-based credit and degrees" of the CTF document).

3. Describe how the project will have a significant impact on students and deliver a significant return on investment to the university. If the project is focused at the undergraduate level, please indicate how the project will address our Institutional Priority Measures of student persistence and completion, student degree completion, and/or related employment? (15 points)

Impact on Student Persistence/Completion and Degree Completion.

The aim of Bureau 507 is to put enthusiastic students (undergraduates and graduates) into multidisciplinary teams and engage them in real-world, paid assignments during their studies. They will be challenged with internal and external assignments/clients. Every team will have faculty mentors but students will have a significant amount of freedom in terms of how they approach assignments. Clients will be selected based on understanding that they must allow participating students the freedom and space and be open to innovation, originality and boldness. Yet, the final outcome must be a usable deliverable that meets the client's specifications. That combination of freedom with responsibility will create a learning experience like nothing else currently available at MSU in or out of the classroom. Bureau 507 will create a new and meaningful link between classroom learning and real-world application. Potential exists for the Bureau 507 experience to engage and motivate students who might not otherwise find the rewarding, hands-on experience they seek – students who might otherwise decide to leave MSU for a more application-based program or for the work world. The reward system and the bonds among students and faculty which will be part of the culture of Bureau 507 have the potential to keep students engaged in the university longer than they might otherwise have remained a student.

Impact on Related Employment.

Bureau 507 students will work directly with clients and will be fully involved with all phases of servicing customers, from scoping and bidding to presenting and delivering final projects. The interdisciplinary nature of the work and the teams will prepare students for professional success like no other existing MSU experience. This will be evident in the preparedness and professionalism they will bring to job interviews and initial job experiences; additionally, the connections with actual potential employers is expected to lead to new relationships for the Career Development Center for broad benefit to students. Bureau 507 leadership will ensure that those new relationships are formed in ways that benefit the University, students and employers.

4. Identify the specific measurable outcomes that will be used to measure the impact of the project. (10 points)

The primary measurable outcome of the first year of the project will be the delivery of a complete, successfully delivered software-based solution for at least one customer. In order to accomplish this outcome, the Bureau507 framework will be established, including the recruitment and training of a small team of student software developers, the training of two student project managers to interface with customers and track the overall progress of the projects(s), the implementation of a quality measurement process (to track software requirements, deliverables, bugs), the establishment of contract language for future projects/customers, and the drafting of agreements to support and reward the participation of faculty mentors from multiple disciplines.

Longer-term outcomes to measure the impact of the project will track:

1. Number of student hours worked (graduate and/or undergraduates, majors)
 2. Number of projects completed and/or in-progress (internal/external projects)
 3. Number and amount of faculty involvement (faculty mentoring of student work)
 4. Amount of release time, research time, duty days accrued by faculty mentors
5. Describe how the activities generated by this project will be sustained after strategic priority funding has ended, or if applicable, explain why the project does not need to be sustained. (5 points)

Customer needs & new project development activities

While the project is still in its infancy, we have already had several initial discussions with many groups, both MSU-based and outside of MSU. This includes the Small Business Development Center (MSU), Information Technology Services (MSU), Chuck Sherwood of Project Maverick, as well as local consulting firms.

Funding model

After strategic funding has ended, Bureau507 will continue to operate as it was conceived to be self-sustaining. An initial estimate is for Bureau507 to charge between \$30-\$50 per hour. This rate is very competitive for the implementation of IT-related solutions. With pay rates for students anticipated at around \$12/hour, the remainder will be used to primarily to invest back into Bureau507, recruit new customers and projects, and update our IT infrastructure to meet the needs of the customers; a small portion will be used to compensate faculty mentors who have contributed to Bureau507 projects.

Support by faculty mentors

In addition to the founders of this project (Profs. Azarbod, Fee, Veltsos), the following MSU faculty and staff have indicated their interest in participating in delivering Bureau507 solutions:

- Prof. Guarionex Salivia (usability testing and gamification, CIS dept.)
- Prof. David Rogers (Graphic Design, Art dept.)
- Prof. Donna Casella (Film Studies, English dept.)
- Prof. Dan Sachau (Organizational Effectiveness Research Group)
- Mike Nolan (Small Business Development Center and adjunct instructor for College of Business)

6. Provide a budget justification that explains why the funding being requested is required to support the project and outline the funding requested within the budget table below. (10 points)

The initial setup of Bureau507 will require a significant investment of time. CSET has committed one-third of Dr. Scott Fee's time (~ \$41,000) towards the project to focus on the recruitment of customers and the establishment of the framework (accounts, hiring, contracts, etc). Professors Azarbod and Veltsos will each receive 20 duty days for their work during Summer 2014 to hire, train, and oversee the student developers during the summer ramp-up phase for a total of \$24,738 plus fringe costs of \$7,916 (40 duty days at daily rate of \$618.45 plus fringe of 32%). Additionally, both Drs. Azarbod and Veltsos will receive 4 credits of release time during AY 2014-2015 to oversee operations during the fall 2014 and spring 2015 terms for a total of \$10,064 plus fringe costs of \$770 (2 courses of release time at 4cr per course * \$1,258 per cr = \$10,064 plus 7.65% fringe of \$770). The summer duty days and the release time add up to \$34,802 (\$24,738 + \$10,064).

The major portion of the funds requested for this project are allocated to support the student software developers that will be hired to work during the project launch phase. This expense is necessary in order to set up systems, networks, processes, and train the students to develop software on-time, within budget, outside of the classroom. We plan to hire four (4) students as software developer, audio/video developer, and graphic design/art developer, at least one of which will also be trained in project management. These students will have support during two academic semesters as well as support during some of the summer months (at a total of \$36,288 which includes 42 weeks of pay for 4 students for 18hrs/week at \$12/hr).

Travel expenses include funds for one additional visit to HAN, travel to/from client sites to discuss the projects and provide the finished solution. The CIS department is providing a matching contribution of \$5,000 to support the HAN visit by Dr. Azarbod in January 2014 and a planned visit by Dr. Veltsos during summer 2014.

\$18,000 in equipment purchases (two servers, 4 laptops with enough CPU & RAM to support software development and multimedia editing) is offset by another in-kind donation from the CIS department of two departmental servers (each valued at \$2,500).

The remainder, \$8,224, is allocated for use towards marketing, website, brochures, as well as communications (including communications with potential international customers).

The full budget table is provided on the next page.

Budget table:

	FY15 SPF Funds	FY15 Funds from all Other Sources
Personnel		
Unclassified Salary (in-load, overload) \$17,401 - Dr. Cyrus Azarbod \$17,401 - Dr. Christophe Veltsos	34,802	41,000
In-kind contribution (from CSET) of time \$41,000 - Dr. Scott Fee		
Classified Salary		
Fringe (Classified and Unclassified)	8,686	
Graduate Assistant Salary		
Graduate Assistant Tuition Reduction/Waiver		
Non-Salary		
Student Help 18 hrs./week*4 students=72*\$12=\$864*42 weeks	36,288	
Purchased Services/Travel Expenses \$4,000 - Out state (HAN visit) \$6,000 - Instate to/from client sites \$4,000 - Purchased Services(internal /external MSU units)	14,000	5,000
In-kind contribution from CIS dept to fund 2 faculty to travel to HAN to learn from Buro302		
Supplies and Materials (software, supplies, subscriptions and memberships)	4,000	
Building Improvement/Construction Costs		
Equipment funds (SPF) \$4,000 - Database Server \$4,000 - Application Server \$10,000 - 4 High Performance Laptops	18,000	5,000
\$5,000 In-kind contribution (CIS dept) for Test Servers		
Other (marketing, website, brochures, communications)	8,224	
Total Budget/Funding Requested	124,000	51,000

^aNote: All current employees must be paid fringe benefits. Fringe should be estimated based on salary and position classification: Unclassified 32%, Classified 40%, Adjunct 7.65%.

^bEstimated Tuition Reduction/Waiver for full-year enrollment: Masters \$6,600, Doctoral \$9,600.

7. Identify any special considerations or needs required for this project and how the needs will be addressed (e.g. physical space, contractual obligations, IT support, or collaborations with/implications for other units). (5 points)

There are no special needs required for this project. The physical servers will be housed within ITS (3rd floor library) and students will access the servers remotely (from either on or off campus locations). For the phases of the work requiring interactions with other developers or faculty mentoring, the CIS department has indicated that it will contribute Wissink Hall room 283 from 5pm to midnight every day to be available to Bureau507.

8. Provide a 1-year project timeline outlining key tasks and dates for completion. (5 points)

Bureau507 Activities/Tasks	Completion Date
Initial travel to HAN, supported by funds from CSET and from CIS department identifying processes, procedures to run a student based consulting service. We also intend to identify talented students from Buro302 that are willing to come to MSU-Mankato and assist us with Bureau507 .	Jan 2014
Integrate lessons learned from the HAN visit into the Bureau507 concept (business plan, generate preliminary marketing materials, and initial discussions with customers).	Feb-Apr 2014
Subsequent travel to HAN (supported by funds from CIS department), including recruiting of talented students from Buro302 and other potential HAN student talent (for Bureau507), review possible adoption of Buro302's custom made project management software (and tailor as needed).	May 2014
Initial selection of four Bureau507 student developers	May 2014
Actively recruit first customer.	May-Jun 2014
Initiate limited operations, including design and provisioning of servers, installation of software (application development platform, time management software, version control software), and overall configuration of support databases.	Jun 2014
Complete setup of Bureau507 supporting infrastructure (servers, software, systems, processes). Finalize contract negotiations with first customer.	Jul 2014
Begin work on first customer project (requirements + analysis + design).	Aug 2014
Review students' work schedule to ensure balance with their academic needs.	Sep 2014
Full-scale software development of first project using agile methodology.	Sep-Nov 2014
Mid-way point presentation to first customer.	Nov 2014
Ongoing project debrief: refine Bureau507 project management techniques, software development strategies and practices (including documentation of training for new incoming student developers), customer relationship management. Refine assignments of duties to students and faculty mentors.	Nov-Dec 2014
Prepare mid-year report for MSU Strategic Priority Funds.	Jan 2014
Final presentation and deliverable to first customer. Review lessons learned and make adjustments as needed.	Feb-Apr 2015

Bureau507 Activities/Tasks	Completion Date
Actively seek second major project (not necessarily with same customer).	Feb-Mar 2015
Kick-off second major project.	Mar-Apr 2015
Ongoing project debrief: refine Bureau507 project management techniques, software development strategies and practices (including documentation of training for new incoming student developers), customer relationship management. Refine assignments of duties to students and faculty mentors.	Apr-May 2015
Prepare annual report for MSU Strategic Priority Funds.	June 2015
Continue operations of Bureau507 using self-funded model (real-world projects for internal and/or external customers).	After June 2015