Verification Team Report

A. Program Under Review
Mathematics

Self-Study Team Members
Bill Fried, Diane Van Deusen, Shawna Bynum, Loi Vo-Nguyen, Dave Ellingson, and Randy Villa

Verification Team Members
Dianna Chiabotti, John Liscano, Bonnie Virnelson

B. Statement of Completion
The verification team believes that the Program Evaluation and Planning Report (PEPR) is complete for this unit.

C. Strengths of the Unit
The verification team believes agrees with the PEPR that the program has the following strengths:

- The program covers the full spectrum from basic skills to transfer level calculus;
- The program has a vibrant statistics program;
- The program uses the latest in graphing calculator technology; and
- The program offers a wide range of support services including tutoring, supplemental instruction, Math Engineering and Science Achievement, and the Math Club,

D. Challenges (concerns, difficulties, areas for improvement)
The validation team concurs with the PEPR that the unit has the following challenges:
- The program needs a dedicated math lab out of an open hall area; and
- The FT-PT ratio hinders some of the quality.

E. Summary of the Verification Team’s Recommendations
Overall, the verification team was impressed with the PEPR from the mathematics program. However, the program does have 5 course outlines of record that are severely outdated and should be updated. We support the items within the Unit Plan (Program Plan) and encourage the program to work toward those goals.
1. MISSION
   A. Program Mission Statement
      The mission of the mathematics department is to make mathematics instruction relevant and exciting. We strive to ensure that each student be successful and well prepared to meet his or her academic, vocational, professional, and personal goals. We provide the highest quality instruction, support services, facilities, and technology.

   B. The program falls within one or more of the following categories (check all that apply):
      - [x] Transfer/Degree
      - [ ] Vocational
      - [x] Remediation
      - [ ] Non-Credit/Community Services

2. CURRICULUM AND INSTRUCTION
   A. Review the course outline data and assess the following:
      We will review course outlines as indicated in our unit plan and respond to the questions below.
      - Currency of course outlines. Course outlines must be reviewed every five years. If all course outlines have not been reviewed, include a timeline for review in your unit plans.
      - Appropriateness of courses to the program.
      - Appropriateness of current pre- and co-requisites and recommended preparation.
      - Appropriateness of the degree and certificate requirements.

   B. Review the Student Learning Outcomes Program Map and assess the following:
      - Complete the SLO Matrix (attached).
      SLO Matrix attached
      - What timeline have you established for developing course-level student learning outcomes?
      We will develop course level student learning outcomes this semester and next semester. We will survey students to determine if students achieved the student learning outcomes.
Once established, in what ways will students in your program demonstrate achievement of stated learning outcomes? Check all that apply:

- Student internships
- Complete program competency exams
- Assessment by departmental rubric
- Obtain jobs in the field
- Pass state/national examinations
- Success in a subsequent course sequence
- Performance after transfer
- Portfolios/capstone projects
- Other ______________________________

Discuss the methods used (above) to assess whether the students achieved the stated student learning outcomes. What was the success rate?

For those students who did not achieve the SLOs, what interventions were used to support those students? What programmatic changes will be made to ensure future SLO achievement?

An accreditation standard requires that the institution makes public expected learning outcomes for its degree and certificate programs. In what ways are the program's expected learning outcomes made public? Check all that apply:

- Syllabi
- Catalog
- Brochure
- Articulation/Transfer agreements
- Website
- Other ______________________________

C. Describe how your program ensures that the syllabi for each instructor are congruent with the course outline. Describe what measures are taken if any syllabi are incongruent with the course outline.

The department collects syllabi from every instructor in every course. Syllabi are part of the evaluation process. The math coordinator checks syllabi for congruence and takes appropriate action.

D. What methods are used by the program to ensure that similar standards of academic rigor of the course outline of record are followed by all instructors in the discipline?

We have standardized topics and instructional materials in our basic skills classes. All instructors undergo student evaluations. Standards of rigor are discussed and disseminated at departmental meetings.
E. What instructional methods are used by the program faculty to address the diverse student population and to encourage retention and persistence of the program’s students?

We use lecture and collaborative activities. We put mathematics into cultural context. We have online courses and instructors provide assistance to students on instructors’ websites. We have an extensive instructional video library. We have a lab that has learning software geared toward our basic skills classes.

F. What instructional methods are used by the program faculty to address the differences in learning styles and to encourage retention and persistence of the program’s students?

We use lecture and collaborative activities. We put mathematics into cultural context. We have online courses and instructors provide assistance to students on instructors’ websites. We have an extensive instructional video library. We have a lab that has learning software geared toward our basic skills classes.

G. Review existing articulation agreements with high schools and other colleges. Are they adequate? Current? Effective? If not, what changes will be made?

We will review with Jerry Sommerville.

H. Reflect on your responses in Section 2, Curriculum and Instruction, and write objectives for improvement on Schedule A, Unit Plan, as needed.

3. STUDENT SUCCESS AND EQUITY

A. Review the data on enrollment, retention, and successful course completion (and grade distribution to be phased in). Discuss program trends relative to college-wide trends. Identify areas where disparity exists for any demographic group (ethnicity/race, gender, age, disability).

In looking at the enrollment, retention, and successful course completion of the Mathematics classes, over the past three years, it appears that student success rates have remained pretty consistent at about 60-65%. African Americans appear to have the lowest success rate while Asian/Pacific Islanders have the highest success rate. Enrollment in the Fall semesters tends to be 5-10% higher than the following Spring semester. This may be due to students who transfer to the university in the Spring semester, students that drop out, or students who have completed their math requirements in the Fall. There is virtually no difference in the success rates when looking at different age groups. However, if you look at Disability status, you find that the Disabled have about a 5-10% lower success rate when compared to the non-disabled.

B. Identify strategies used to identify and assist students at risk. Discuss their effectiveness.

We have many ways to identify students at risk. These students include low income, first-generation college, and new majority students. Special services are available to all of these students, which include programs through MESA and extra help and tutoring in our Learning Skills Center and in our NVC Math Lab. In addition, all our full-time Mathematics staff are always available to assist these students. All of these faculty have been successful in assisting these at risk students. We have also split our Math 90, Beginning Algebra into two separate courses, for students to digest this material in
smaller chunks. We are also planning to do the same with our Math 94 course, Intermediate Algebra. Diagnostic testing is available to any learning disabled students. Students who qualify receive many services, including additional time for tests, extra tutoring, and note-takers if necessary.

C. What has the program done to formalize links with support services for students?

The Mathematics department has all of its instructors make all students aware of all support services available to all students. Our Math Lab employs two Instructional Assistants, just for Mathematics. Supplemental tutoring is also available in our Learning Skills Center as well as in our MESA program. In addition, the counselors provide additional support to our students. Our instructors are also available to answer questions over the internet. I personally tell my students that if they have a question on the weekends, please feel free to e-mail me. Our Math Department faculty and staff work closely with the other departments that support our students.

D. Review the full-time/part-time instructor ratio (to be phased in). Discuss trends, and needs.

The Full Time/Part-Time ratio is very low in our Math Department. In Fall 2005, we are offering 217 units in credit classes. Of these classes, 127 units are taught by part-time instructors, while 90 units are taught by full-time instructors. This translates to 41% of all our Mathematics classes taught by full-time instructors and 59% by part-time faculty. This low ratio weakens our Math Department as a whole. In most of our Math Classes, part-time instructors are not paid for office hours, and therefore, students in their classes are not able to see their instructor outside of class, unless that instructor volunteers his/her time. Many of these instructors just come to teach their class and then are gone. Students would have a better success rate, if we had a higher full-time/part-time ratio. It is clear from the statistics that our students show a much higher success rate when taught by a full-time instructor. With the retirement of our Mathematics Instructor, Debbie Desrochers last year, we were below a 50% FT/PT ratio. We have requested to replace her, but this position was not one of the college’s priorities this year. In order to reach a 75% Full Time/Part-Time ratio, our Math Dept. will need to hire a minimum of 5 more Full-Time Instructors. Another major problem that we have is hiring top-notch part time instructors. Because we are the lowest paying college in our geographic area, we do not attract the cream of the crop. With Solano, Santa Rosa, Sonoma State, and College of Marin paying $20 to $55 more per hour than Napa, we cannot attract the best part time instructors. If we had a 75% full-time ratio, we would be less reliant on part-time faculty and our students would benefit the most.

E. Review the data on degree/certificate completion and any job placement data available. Assess the effectiveness of your program. (vocational programs only)

Not applicable

F. Reflect on your responses in Section 3 Student Success and Equity and write objectives for improvement on Schedule A, Unit Plan, as needed.
4. **Enrollment Trends and Student Satisfaction**

A. Review the enrollment trends data, and describe recent trends. Are there external factors such as community demographics or the economy that have affected the program? What are the plans to address these factors?

   In reviewing the enrollment data in mathematics for the past three years, it appears that mathematics enrollments have remained pretty consistent. Overall, Napa Valley College has seen a slight decrease in FTES and headcount over the same time interval. Unemployment in Napa County hasn’t changed much, varying between 3.5 and 5.5 percent in the past three years. The population in Napa County has risen slowly while the median housing price has risen dramatically. The median cost of a home is now over a half million dollars and the median rental costs close to one thousand dollars, which makes it difficult for a student to work enough to pay bills and go to school at the same time. The current cost of gasoline also hampers students in adjoining communities from traveling to attend NVC.

B. Review the load (WSCH/FTEF), productivity (FTES/FTEF), average class size, and financial data and describe recent trends.

   As discussed in A, NVC FTES and headcount have seen a slight decrease in the past three years. In mathematics, this does not seem to have affected load, class size, or productivity, as all three have remained quite consistent. The size of the math department has remained the same size as well, with the exception of full-time replacements that now make up the seventh member.

C. Review the schedule of classes for the program and the results of the student satisfaction surveys, and discuss whether the course offerings are scheduled appropriately to meet student need.

   According to the last student satisfaction survey, 86% of NVC students feel satisfied with instruction. Fifty-five percent feel that the number and variety of classes offered helps them meet their educational goals and 54% feel that the days and times of course offerings are convenient. Forty-six percent said that courses they needed were available during the times they needed to take them. When asked about alternative calendars/schedules, 56% of students surveyed said they would be interested in taking courses in the afternoons between 1 pm and 6 pm., Forty-five percent would be interested in taking Friday or weekend classes and 69% support a shorter 15 or 16 week calendar. Perhaps the math department could do a better job of meeting students’ needs by offering more courses in the afternoons, Saturdays, and on Fridays, although historically, Saturday math classes are cancelled due to low enrollment. Certainly, NVC must consider these student wishes as they continue investigate condensed calendars.

   The math department has tried to accommodate slower learners by implementing a split beginning algebra course, which has been successful on the daytime schedule, but not in the evenings. They have also split intermediate algebra, but are waiting to put it on the schedule until they are able to increase enrollments in the beginning algebra split.

   The fall offering of Calculus II has been in danger of being cancelled due to low enrollment, but numbers have increased sufficiently in the past two years, thanks to the growth of the MESA program. In fact, the continued success of the entire calculus series is, for the most part, dependent on the MESA students and the availability of their subsequent coursework and instructors. The loss of full-time instructors and current
backfilling with part-timers in both physics and engineering has been of utmost concern in the Science, Math, and Engineering division. Their courses are a crucial bit of glue that holds many SME courses, as well as MESA, together including upper division calculus.

D. Discuss the results of the student satisfaction survey, identifying areas for improvement and continued success.

Not applicable

E. What documented labor market demand does this program address? Does the program offer unique training (and not represent unnecessary duplication of manpower training) in the area? (vocational programs only)

Not required but provided: Probably the greatest labor market demand currently being met by the NVC Mathematics Department is preparing students for careers in health occupations. Students must take a minimum of one semester of algebra for subsequent prerequisites and/or to be accepted into the programs. Since our math instructors teach everything from arithmetic to differential equations and virtually all students have some type of math requirement, we not only train future health care providers, but future scientists, businesspeople, engineers, and computer technologists. In this manner, we are serving students, the community, and the college by offering classes that prepare individuals for today's job market.

F. Reflect on your responses to Section 4 Enrollment Trends and Student Satisfaction, and write objectives for improvement on Schedule A, Unit Plan, as needed.

5. COMMUNITY OUTREACH

A. What recruitment and/or community outreach activities has the program engaged in or initiated?

Several full-time Mathematics faculty have done math presentations in local elementary and junior high schools. One instructor coached a junior high school math team for a couple of years. We have partnered with MESA and have participated in the annual MESA fair. We have started a mathematics club, and we offer a mathematics department scholarship. One instructor appeared on the college television program.

B. What has the program done to establish relationships with secondary schools and/or four-year institutions?

We run classes at Vintage High School and New Technology High School. We have in the past and may in the future offer classes at Justin Sienna High School. We teach in the evenings at the American Canyon Middle School site. We have connected students to mathematics luncheons and dinners at Sonoma State University, where students hear professional mathematicians give talks on areas of current research. We have adjunct faculty who teach at Napa High School, Justin Sienna High School, Sonoma State University, Pacific Union College, and at several local area community colleges.

C. What has the program done to establish relationships with the business community (if a vocational program)?

Not applicable
D. How has the involvement of the advisory committee helped in improving and/or promoting the program? (vocational programs only)
   Not applicable

E. Reflect on your responses in Section 5 Community Outreach and Articulation and write objectives for improvement on Schedule A, Unit Plan, as needed.

6. ACCREDITATION AND EXTERNAL REVIEWS

A. Review the Accreditation Self-Study Planning Agenda, Accreditation Final Report, and results of previous program evaluations that are included in the attached data. Discuss the recommendations of the review teams relevant to the program and how the program responded.
   Not applicable

B. Indicate the sources of information used in Question 6A.
   - Accreditation Self-Study Planning Agenda
   - Accreditation Final Report
   - Previous program evaluation recommendations

C. Review the recommendations from any other licensing or accreditation bodies. Discuss the recommendations of the review teams relevant to the program and how the program responded.

D. Reflect on your responses in Section 6 Accreditation and External Reviews and write objectives for improvement on Schedule A, Unit Plan, as needed.

7. RESOURCES

The results of program evaluation feed into the planning and budget process. Consider the staffing and financial data provided, as well as the Unit Plan forms you completed during this evaluation, while answering the questions in this section. Requests must be linked to the 2005-2011 NVC Strategic Plan Goals and Objectives.

A. Staffing

Summarize the staffing resource needs identified in the unit plans. Discuss any changes needed. (Complete Schedule B, Staffing, as needed)

- Hire a minimum of three new full-time, tenure-track instructor positions to replace math positions created by faculty retirements and to strengthen the full-time/part-time ratio
- Hire a full-time Math Instructor/Math Lab Coordinator (split between lab management and teaching responsibilities)
- Hire a full-time Instructional Assistant for the Math Lab
B. Program-Specific Equipment

Discuss the strengths and weaknesses of the program-specific equipment available to enhance program success. What needs remain? What strategies are planned to meet those needs? (Complete Schedule C, Program-Specific Equipment Request, as needed.)

Present TI ViewScreens are outdated and unreliable; insufficient quantity of computers to meet student needs; poor location for math lab; no dedicated lab for math courses (e.g., statistics, calculus). Shortage of basic instructional supplies essential to teaching math (e.g., dry-erase markers). Resolve by purchasing the following equipment:

- Purchase six Texas Instruments ViewScreens, with software and accessories for classroom instruction
- Educational mathematics software for Math Lab and classroom use
- PC-based CAS (computer algebra system) software (e.g., Mathematica, Maple, Derive)
- Educational videos and popular titles to raise math awareness and promote courses and the math major
- Dry-erase markers, chalk, and other apt instructional supplies

C. Facilities Improvement/Renovation

Discuss the strengths and weaknesses of the physical resources available to enhance program success. What needs remain? What strategies are planned to meet those needs? (Complete Schedule D, Building Improvement/Renovation, as needed.)

- Centralized, dedicated Math Lab, with student desktop and laptop computers (with web access and math software), space for individual tutoring and small group sessions
- Electronic Classroom dedicated to math and statistics
- LCD projectors in all mathematics classrooms
- Dedicated mathematics classrooms, with LCD projectors, instructor's computers, and instructional posters presenting mathematics information, problems, history, and cultural contexts
- Open computer lab, with apt mathematical software and web access
- Office space for all full-time and adjunct faculty, full-time instructional assistants, and departmental meeting space
- Well-maintained whiteboards and chalkboards; disposable whiteboard eraser wipes, cleaned using human- and environmentally friendly chemicals

D. Technology

Discuss the strengths and weaknesses of the technology available to enhance program success. What needs remain? What strategies are planned to meet those needs? (Complete Schedule E, Request for Technology, as needed.)

- Present technology is inadequate; limited equipment & software; poor location
- Refer to B & C above
E. Professional Development

1) Using the results of the Faculty/Staff Accomplishments survey, summarize the professional development activities undertaken by faculty and staff.

See Professional Development Surveys

2) Based on the goals that resulted from this program evaluation, complete Schedule F, Professional Development Needs, to indicate what areas of focus have been identified for future faculty/staff development. Note: Budget requests for Travel and Conference should be addressed or requested in the question 7G.

- Training in new and recent technologies
- Workshops and seminars dealing with pedagogical issues (e.g., implementation of collaborative learning strategies; development of linked courses; handling student math anxiety)

F. Learning Resources

What learning resources (e.g., books, periodicals, videos) are needed to enhance program success? (Complete Schedule G, Learning Resources Needs, as needed.)

- MAA (Mathematical Association of America: publications & memberships
- AMATYC (American Mathematical Association of Two-Year Colleges): publications & membership
- American Statistical Association: publications & membership

G. Operational Budget

Are operational funds appropriate to enhance program success? If not, how would additional operational funds be used to enhance program success? (Complete Schedule H, Request for Budget Augmentation, as needed.)
PROGRAM EVALUATION SUMMARY FOR MATHEMATICS

Complete the following sections based on the program evaluation completed. This summary will be forwarded to the Planning Committee after the verification phase is complete.

Program Achievements  (major achievements, changes, implementations, progress since last program review)

With limited space and resources we have created a Math Lab with excellent learning software and videos, staffed with talented and student-sensitive IA’s. We have hired some, but not enough, highly qualified new tenure track faculty. We have split Math 90 and Math 94 into more digestible pieces to accommodate at-risk students. We have strengthened our transfer program by developing a separate course in linear algebra.

Strengths  (unique characteristics, special capacities)

We cater to the full spectrum of community college students’ needs, ranging from basic skills to transfer-level calculus and everything in between. We have a vibrant statistics program. We use the latest graphing calculator technology. We offer a wide range of support services, including tutoring, supplemental instruction, MESA, and the Math Club.

Challenges  (concerns, difficulties, areas for improvement)

We need an improved FT-PT ratio. We need a space that is not in an open hallway for a dedicated, fully equipped and staffed Math Lab to better serve all our math students. Our department needs to do a better job of influencing the decision-making structures that allocate resources and make hiring decisions on this campus, so we can fulfill our mission of providing the highest quality mathematics instruction, support, technology, and facilities to Napa Valley College students.

Optional: What additional data, if any, would have been helpful to effectively evaluate the program?
The program evaluation report is reviewed by the program faculty or staff, signed by the program evaluation chair and division chair or supervisor, and forwarded to the Office of Research, Planning, and Development by _____________________, for the verification phase.

**Program Evaluation Chair Signature:** ______________________________

**Division Chair/Supervisor Signature:** ______________________________

**Date:** ______________________________

## VERIFICATION PHASE

The verification team will review the Program Evaluation Report for accuracy and completeness, and the process used to develop the report (see verification team duties). The program evaluation will be verified by ________________________. Once the report is verified and shared with the PEP team, will be forwarded to the appropriate Vice President or President (for administrative services) by _________________________.

**Verified on:** ______________________________

**Verification Committee Signatures:** ______________________________

## ACKNOWLEDGEMENT PHASE

The Vice President (or President for administrative services) will read and acknowledge the program and planning document and send a letter to the program team and discipline/program faculty or staff, with copies to the Academic Senate President, the Planning Committee, and the President of the college (who will forward them to the Board of Trustees). The vice presidents and/or President will use program review results to 1) base discussions and decision making on data and evaluation provided by program evaluation; 2) inform program planning; and (3) advocate for program needs.

**Vice President/President** ______________________________

**Date Letter Sent:** ______________________________

**Recommend review in 2 years:** Yes _____ No ____
# Program Evaluation and Planning

## Student Learning Outcome (SLO) Matrix

### Mathematics

<table>
<thead>
<tr>
<th>COURSE</th>
<th>SLO #1 Have students be successful in taking courses in 4-year institutions where mathematics is required</th>
<th>SLO #2 Have students meet math graduation requirements for associate degrees</th>
<th>SLO #3 Have students apply critical thinking skills in their roles in the workplace, family and community</th>
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<tbody>
<tr>
<td>Math 55</td>
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<td>X</td>
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<tr>
<td>90</td>
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## Unit Plan

**Mathematics**

<table>
<thead>
<tr>
<th>NVC Strategic Goal #1 - 5</th>
<th>Program Evaluation Section</th>
<th>Objectives</th>
<th>Priority In Rank Order</th>
<th>Program Activities/Actions</th>
<th>Resources*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5A &amp; B</td>
<td>1. Expand community outreach to include more contact with other educational institutions and local businesses.</td>
<td>1.</td>
<td>1. Encourage math faculty to pursue community, academic, &amp; business outreach activities by including this option for salary advancement or sabbatical projects.</td>
<td>1. Fund through sabbatical or salary advancement budgets.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2. Review course outlines.</td>
<td>2.</td>
<td>2. Review Math 55, 106, 108, 220 and other courses to incorporate SLOs.</td>
<td>2.</td>
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<td>3.</td>
<td>3.</td>
<td>3.</td>
<td>3.</td>
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* New requests should be defined on resource forms and included in the unit budget.

### Program Evaluation Section

- A. Curriculum and Instruction
- B. Student Success and Equity
- C. Enrollment Trends and Student Satisfaction
- D. Community Outreach
- E. Accreditation and External Reviews
FACULTY AND STAFFING

Accreditation reference: Human resource planning is integrated with institutional planning. The institution systematically assesses the effective use of human resources and uses the results of the evaluation as the basis for improvement.

Project additional needs above and beyond the current status. Please include in your projected needs any known position that will be vacated due to retirement. Replacement positions are not guaranteed. Information will be used in the faculty and staff prioritization processes.

<table>
<thead>
<tr>
<th>Job Title and Justification</th>
<th>FTE</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time, tenure-track Math instructors</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Full-time, tenure-track Math instructor/Math Lab Coordinator</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Full-time Math Lab Instructional Assistant</td>
<td>1.0</td>
<td>TBA</td>
</tr>
</tbody>
</table>

See report section 7 for justifications for the positions above.

Submitted By: ___________________________  Approved By: ___________________________

Budget Center Manager  President/Vice President

AUGUST 11, 2005
**PROGRAM-SPECIFIC EQUIPMENT REQUEST**

**Accreditation reference:** Equipment supports student learning programs and services and improves institutional effectiveness.

Examples of program-specific equipment include maps, skeletons, microscopes, artifacts, etc. They may be located in each classroom or centrally located in a workroom. For this request, consider equipment with a value greater than $200.

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimated Cost</th>
<th>Estimated Annual Maintenance Cost</th>
<th>Justification (Link to Plan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Instructional</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Texas Instruments ViewScreens, with Software &amp; accessories</td>
<td>$700</td>
<td>$0 for all items listed</td>
<td>For justifications, see report section 7 above</td>
</tr>
<tr>
<td>Educational mathematics software for Math Lab and classroom use</td>
<td>$1000</td>
<td></td>
<td></td>
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<tr>
<td>PC-based CAS (computer algebra system) software (e.g., Mathematica, Maple, Derive)</td>
<td>$500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational videos &amp; popular titles to raise math awareness &amp; promote courses and the math major</td>
<td>$500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry-erase markers, chalk, and other apt instructional supplies</td>
<td>$500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Non-instructional

Submitted By: [Signature]

Approved By: [Signature]

Budget Center Manager [Name]  
President/Vice President [Name]  

AUGUST 11, 2005
FACILITIES IMPROVEMENT/RENOVATIONS REQUEST

Accreditation reference: Facilities support student learning programs and services and improve institutional effectiveness. Physical resource planning is integrated with institutional planning.

This request is for small capital construction projects such as remodeling a small area, reconfiguring walls, building shelving, etc. Generally, projects should be under $5,000. Larger scale projects will be considered in bond construction and renovation plans.

In order to make sure that your idea meets legal requirements or is even feasible to do, we ask that you consult with the Director, Facilities Services, and address the following items on the form.

Provide a description of the project that includes:
- How the project supports the mission and objectives of your program
- Project description
- Location of the proposed project
- Health and safety impacts of the project
- On-going maintenance that will be necessary

| 1. Centralized, dedicated Math Lab, with student desktop and laptop computers (with web access and math software), space for individual tutoring and small group sessions |
| 2. Electronic Classroom dedicated to math and statistics |
| 3. LCD projectors in all mathematics classrooms |
| 4. Dedicated mathematics classrooms, with LCD projectors, instructor’s computers, and instructional posters presenting mathematics information, problems, history, and cultural contexts |
| 5. Open computer lab, with apt mathematical software and web access |
| 6. Office space for all full-time and adjunct faculty, full-time instructional assistants, and departmental meeting space |
| 7. Well-maintained whiteboards and chalkboards; disposable whiteboard eraser wipes, cleaned using human- and environmentally friendly chemicals |

Cost estimates will be provided for priority projects only.

Submitted By: ___________________________  Approved By: ___________________________

Budget Center Manager  President/Vice President

AUGUST 11, 2005
TECHNOLOGY REQUEST

Accreditation reference: Technology planning is integrated with institutional planning. The institution assures that any technology support it provides is designed to meet the needs of learning, teaching, college-wide communications, research, and operational systems.

In order to determine the feasibility of your idea, it is necessary to consult with the Information Technology (IT) Department. It is important that all computer related technology be centrally coordinated. This will allow the IT Department to know the full picture of the need, to plan for adequate capacity of equipment and infrastructure, and to ensure standardized equipment is purchased, if possible. It is equally important that all technology requests are consistent with the NVC Technology Plan.

Provide a general description of the project; this includes:
1. The equipment needed; students and/or staff who will be served; how often it will be used.
2. Will installation and maintenance support be required?
3. Where will the equipment be located? Will space need to be modified?
4. Describe the infrastructure requirements (e.g., network, power, connectivity, security, etc.)
5. Software support needed (e.g., new licenses, upgrades, system integration, ongoing support)
6. Is additional furniture necessary?
7. Useful life of equipment—when will the equipment need to be replaced?

Math Lab with dedicated desktop and laptop computers, all equipped with internet access and educational software—whatever the Math Department agrees is appropriate in working with the architects designing the Math Lab under the bond issue.

Submitted By:         Approved By:
________________________________  _______________ _________________
Budget Center Manager      President/Vice President

AUGUST 11, 2005
**PROFESSIONAL DEVELOPMENT NEEDS**

Accreditation reference: The institution provides all personnel with appropriate opportunities for continued professional development, consistent with the institutional mission and based on identified teaching and learning needs.

Please identify the professional development needs required for faculty and staff to stay current in the discipline, office technology, diversity, safety, instructional methods, and other areas. Specific training and estimated number of attendees are requested.

<table>
<thead>
<tr>
<th>Question</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What training needs have been identified from your program review?</td>
<td>Training in new and recent technologies</td>
</tr>
<tr>
<td>2. What pedagogical training needs have been identified in your program review?</td>
<td>Workshops and seminars dealing with pedagogical issues (e.g., implementation of collaborative learning strategies; development of linked courses; handling student math anxiety)</td>
</tr>
<tr>
<td>3. What types of technology does your program use? What technology training needs have you identified?</td>
<td>Computers, Texas Instruments ViewScreen calculators, mathematics software, PC-based CAS (computer algebra system) software (e.g., Mathematica, Maple, Derive) See above for training needs</td>
</tr>
<tr>
<td>4. What are the leading publications specific to your discipline and/or program?</td>
<td>Publications from the following professional organizations: 1. MAA (Mathematical Association of America 2. AMATYC (American Mathematical Association of Two-Year Colleges) 3. American Statistical Association</td>
</tr>
</tbody>
</table>

Submitted By: Approved By:

Budget Center Manager President/Vice President

AUGUST 11, 2005
# LEARNING RESOURCES/MEDIA MATERIALS REQUEST

## Books including Reference

<table>
<thead>
<tr>
<th>Number of titles to add: _____</th>
</tr>
</thead>
</table>

*Areas to consider for maintaining and developing a collection that supports this course and corresponding assignments:*

- Titles that provide: a multicultural perspective to the topics covered in the course; gender perspectives on subjects; a literary, dramatic, or fictional perspectives for students to explore; or titles that provide biographical information on innovators, leaders, or historic figures in the discipline.

<table>
<thead>
<tr>
<th>Recommendations/ comments:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Estimated cost for new materials:</th>
</tr>
</thead>
</table>

## Periodical Titles  (Newspapers, Journals, Magazines)

<table>
<thead>
<tr>
<th>Number of titles to add: 3-6 journals from the following professional organizations: Mathematical Assn. of America; American Mathematical Assn. of Two-Year Colleges; American Statistical Assn.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Recommendations/comments:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Estimated cost for new materials: TBA</th>
</tr>
</thead>
</table>

## Electronic Databases and Indexes

<table>
<thead>
<tr>
<th>Number of databases to add: _____</th>
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<table>
<thead>
<tr>
<th>Recommendations/comments:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Estimated cost for new materials:</th>
</tr>
</thead>
</table>

## Media Collection  (closed-captioned or DVD):

<table>
<thead>
<tr>
<th>Number of titles to add: _____</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Recommendations/comments:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Estimated cost for new materials:</th>
</tr>
</thead>
</table>

## Are library/learning resource service hours adequate for this course/program?  Yes _____ No _____

## Is the quantity of materials sufficient for students within needed time frame?  Yes _____ No _____

## Will library/learning resources assignments be used in your course?  Yes _____ No _____

## Will this course/program require the assistance of library faculty for orientations or other information competency instruction?  Yes _____ No _____

- ☐ I would like to meet with a Librarian for developing a plan for selecting and adding materials to the Library or Media Center.
- ☐ To keep the collection reflecting current knowledge, I will alert the librarians of new developments in my field and send suggestions of books and other materials to be ordered.
REQUEST FOR OPERATING BUDGET AUGMENTATION

Budget Center: ________________________________  Activity: ________________________________

Accreditation reference: Financial planning is integrated with and supports all institutional planning.

Operating Budget: This section is used to request and justify non-capital outlay additions to your department’s budget. This form applies only to Account Codes 1300, 1400, 2300, 2400, 4000, and 5000.

List in priority order.

<table>
<thead>
<tr>
<th>Account Number and Description</th>
<th>Additional Amount Requested</th>
<th>Justification (Link to Plan)</th>
</tr>
</thead>
</table>

Submitted By:          Approved By:

________________________________   _______________________

Budget Center Manager       President/Vice President

AUGUST 11, 2005