

**NORCO COLLEGE
ANNUAL INSTRUCTIONAL PROGRAM REVIEW**

Discipline/Unit: Mathematics

(If applicable) **Program or Certificate** _____

Please give the full title of the discipline or department. You may submit as a discipline or department as is easiest for your unit

Contact Person: Bob Prior/Jeff Mulari

Due: April 20, 2017

Please send an electronic copy in a word document to:

programreview@norcollege.edu



Form Last Revised: February 2017

Norco College

Web Resources: <http://www.rccd.edu/administration/educationalservices/ieffectiveness/Pages/ProgramReview.aspx>

Annual Instructional Program Review Update

Instructions

***Please retain this information for your discipline's/department's use (or forward to your chair).**

The Annual Self-Study is conducted by each unit on each college and consists of an analysis of changes within the unit as well as significant new resource needs for staff, resources, facilities, and equipment. It should be **submitted by April 20** or the first working day following the 20th in anticipation of budget planning for the fiscal year, which begins July 1 of the *following* calendar year.

For Program Review data, please go to the following link:

<http://www.norcocollege.edu/about/president/strategic-planning/programreview/Pages/index.aspx>

The questions on the subsequent pages are intended to assist you in planning for your unit.

The forms that follow are separated into pages for ease of distribution to relevant subcommittees. **Please keep the pages separated** if possible (though part of the same electronic file), **with the headers as they appear**, and be sure to include your unit, contact person (this may change from topic to topic) and date on each page submitted. Don't let formatting concerns slow you down. If you have difficulty with formatting, Nicole C. Brown can adjust the document for you. Simply add responses to those questions that apply and forward the document to nicole.brown@norcocollege.edu with a request to format it appropriately.

If you cannot identify in which category your requests belong or if you have complex-funding requests, please schedule an appointment with your college's Vice President for Business Services right away. They will assist you with estimating the cost of your requests. For simple requests such as the cost of a staff member, please e-mail your Vice President. It is vital to include cost estimates in your request forms. Each college uses its own prioritization system. Inquiries regarding that process should be directed to your Vice President.

Norco: VP Business Services 951-372-7157

Mission

Norco College serves our students, our community, and its workforce by providing educational opportunities, celebrating diversity, and promoting collaboration. We encourage an inclusive, innovative approach to learning and the creative application of emerging technologies. We provide foundational skills and pathways to transfer, career and technical education, certificates and degrees.

Vision

Norco – creating opportunities to transform our students and community for the dynamic challenges of tomorrow.

Strategic Plan: Goals and Objectives 2013-2018

Goal 1: Increase Student Achievement and Success

Objectives:

1. Improve transfer preparedness (completes 60 transferable units with a 2.0 GPA or higher).
2. Improve transfer rate by 10% over 5 years.
3. Increase the percentage of basic skills students who complete the basic skills pipeline by supporting the development of alternatives to traditional basic skills curriculum.
4. Improve persistence rates by 5% over 5 years (fall-spring; fall-fall).
5. Increase completion rate of degrees and certificates over 6 years.
6. Increase success and retention rates.
7. Increase percentage of students who complete 15 units, 30 units, 60 units.
8. Increase the percentage of students who begin addressing basic skills needs in their first year.
9. Decrease the success gap of students in online courses as compared to face-to-face instruction.
10. Increase course completion, certificate and degree completion, and transfer rates of underrepresented students.

Goal 2: Improve the Quality of Student Life

Objectives:

1. Increase student engagement (faculty and student interaction, active learning, student effort, support for learners).
2. Increase frequency of student participation in co-curricular activities.
3. Increase student satisfaction and importance ratings for student support services.
4. Increase the percentage of students who consider the college environment to be inclusive.
5. Decrease the percentage of students who experience unfair treatment based on diversity-related characteristics.
6. Increase current students' awareness about college resources dedicated to student success.

Goal 3: Increase Student Access

Objectives:

1. Increase percentage of students who declare an educational goal.
2. Increase percentage of new students who develop an educational plan.
3. Increase percentage of continuing students who develop an educational plan.
4. Ensure the distribution of our student population is reflective of the communities we serve.
5. Reduce scheduling conflicts that negatively impact student completion of degrees and programs.

Goal 4: Create Effective Community Partnerships

Objectives:

1. Increase the number of students who participate in summer bridge programs or boot camps.
2. Increase the number of industry partners who participate in industry advisory council activities.
3. Increase the number of dollars available through scholarships for Norco College students.
4. Increase institutional awareness of partnerships, internships, and job opportunities established with business and industry.
5. Continue the success of Kennedy Partnership (percent of students 2.5 GPA+, number of students in co-curricular activities, number of students who are able to access courses; number of college units taken).
6. Increase community partnerships.
7. Increase institutional awareness of community partnerships.
8. Increase external funding sources which support college programs and initiatives.

Goal 5: Strengthen Student Learning

Objectives:

1. 100% of units (disciplines, Student Support Service areas, administrative units) will conduct systematic program reviews.
2. Increase the percentage of student learning and service area outcomes assessments that utilize authentic methods.
3. Increase the percentage of programs that conduct program level outcomes assessment that closes the loop.
4. Increase assessment of student learning in online courses to ensure that it is consistent with student learning in face-to-face courses.
5. Increase the number of faculty development workshops focusing on pedagogy each academic year.

Goal 6: Demonstrate Effective Planning Processes

Objectives:

1. Increase the use of data to enhance effective enrollment management strategies.
2. Systematically assess the effectiveness of strategic planning committees and councils.
3. Ensure that resource allocation is tied to planning.
4. Institutionalize the current Technology Plan.
5. Revise the Facilities Master Plan.

Goal 7: Strengthen Our Commitment To Our Employees

Objectives:

1. Provide professional development activities for all employees.
2. Increase the percentage of employees who consider the college environment to be inclusive.
3. Decrease the percentage of employees who experience unfair treatment based on diversity-related characteristics.
4. Increase participation in events and celebrations related to inclusiveness.
5. Implement programs that support the safety, health, and wellness of our college community.

I. Norco College Annual Instructional Program Review Update

Unit: _____Mathematics_____

Contact Person: _____Bob Prior/Jeff Mulari_____

Date: _____May 17, 2017_____

Trends and Relevant Data

1. How does your unit support the [mission of the College](#)?

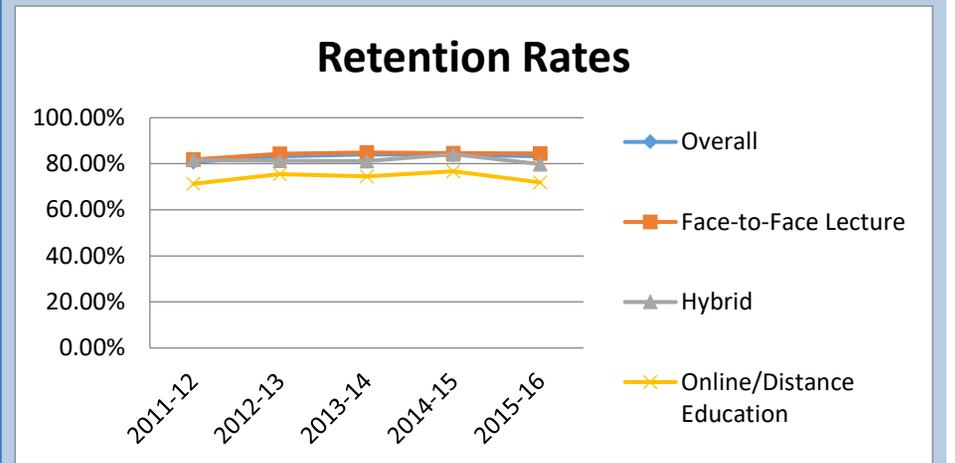
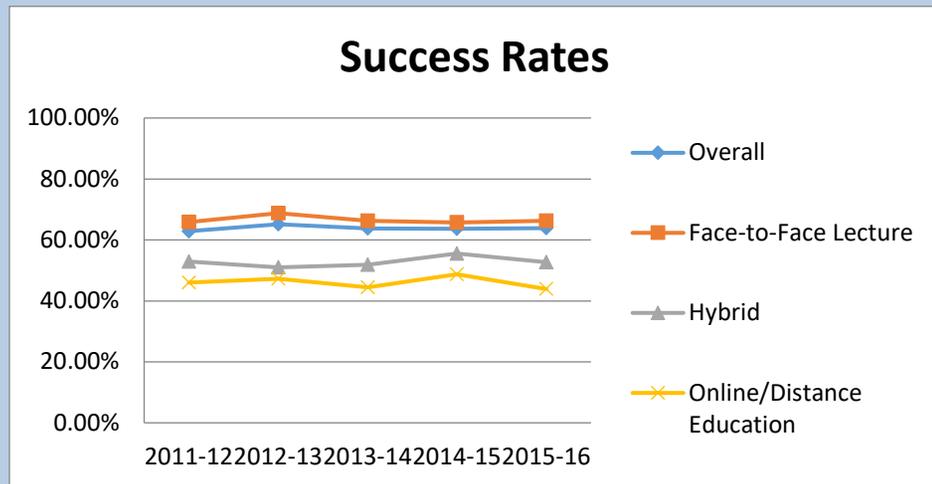
2. Have there been any changes in the status of your unit? (if not, please indicate with an “N/A”)

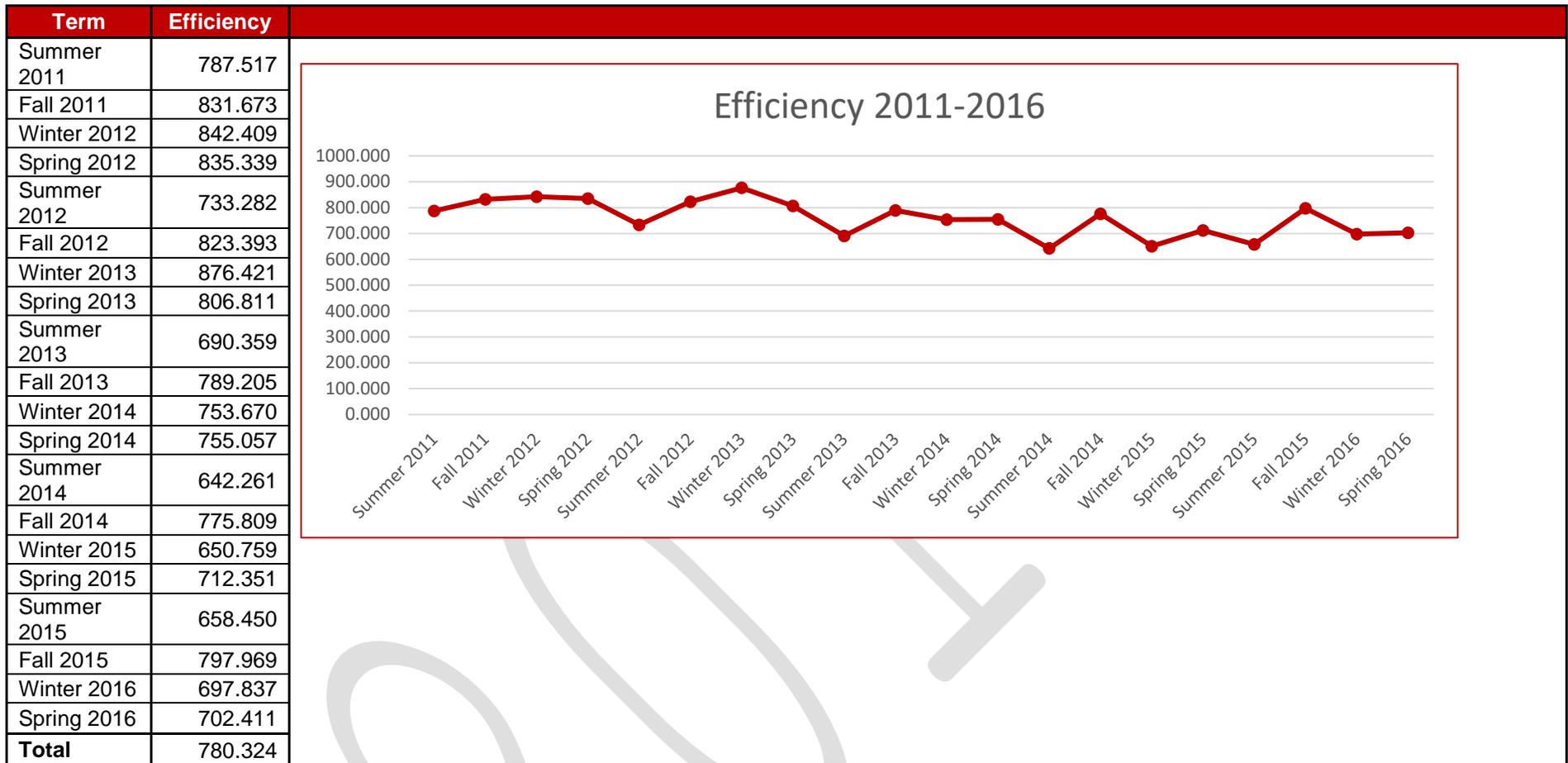
- a. Has your unit shifted departments? ? Yes. The Norco Math Discipline is now its own department. We currently have 9 F/T faculty. Also, one of our F/T faculty, Jason Parks, is now the Interim Dean of Instruction, so we are down one faculty member. We now have two co-chairs, Jeff Mulari and Bob Prior
- b. Have any new certificates or complete programs been created by your unit? N/A
- c. Have activities in other units impacted your unit? For example, a new Multi Media Grant could cause greater demand for Art courses. MMAP placement is having a big impact on our program. We are carefully scheduling Fall 2017 classes to be in line with the data collected from the pilot group of Fall 2016.

3. List and discuss your retention and success rates as well as your efficiency. If helpful, please note any differences between instruction delivery format (Online, Hybrid etc.)

SUCCESS RATES					
Success Rate NORCO	2011-12	2012-13	2013-14	2014-15	2015-16
Overall	62.87%	65.15%	63.72%	63.68%	63.83%
Face-to-Face Lecture	65.89%	68.78%	66.24%	65.72%	66.28%
Hybrid	52.92%	50.99%	51.81%	55.54%	52.65%
Online/Distance Education	45.98%	47.22%	44.41%	48.73%	43.89%

RETENTION RATES					
Retention Rate NORCO	2011-12	2012-13	2013-14	2014-15	2015-16
Overall	80.79%	83.19%	84.06%	84.00%	83.29%
Face-to-Face Lecture	81.87%	84.30%	84.90%	84.60%	84.47%
Hybrid	81.69%	81.37%	81.13%	84.13%	79.86%
Online/Distance Education	71.31%	75.55%	74.53%	76.74%	71.86%





3. What are the changes or significant trends in the data? To what do you attribute these changes?

The data indicate that students are more successful in a face-to-face environment, which is not surprising. The data also indicate that we have not seen any increase or decrease in these rates, so as long as we continue to do things the same, the retention and success rates will not change significantly.

There are a variety of techniques in use at today's colleges -- including the "flipped classroom," and more student-to-student interaction (group work) -- that are different from the traditional approach of lecture/discussion. These techniques take training, which is something that can be considered, but it is also possible that there is a more systemic problem that is preventing increases in student retention and success: Class size.

A smaller class size would (should) promote more student-faculty interaction within the classroom as well as on assessments. It would be easier to be innovative in the classroom, easier to address student needs, easier to consult with students who are doing poorly.

It would be nice to see a study of success and retention rates of other colleges based on type of presentation (traditional approach, flipped classroom, more group work, etc) and class size.

The Norco Math Department is willing to experiment for one year with a class cap of 32 students in all math classes. Until that time, we should not be surprised that the retention and success rates are relatively flat, and we should not expect any change.

4. List the resources that you received in the last year as a result of program review. How did the resources impact student learning? If you requested resources and did not receive them, how did it impact your unit?

The authors of this report are unaware of any resource requests or the receipt of any particular resources.

5. What annual goals does your unit have for 2016-2017 (please list the most important first)? Please indicate if a goal is directly linked to goals in your comprehensive. How do your goals support the college mission and the goals of the [Strategic Plan/Educational Master Plan](#)?

List the goals of your unit for 2016-2017	Define activity(s) linked to the goal	Briefly explain the relationship of goal to mission and Strategic Plan/Educational Master Plan (see above)	Indicate if goal is limited to Distance Education
Improve success rates and through-put in basic skills courses, increasing the number of students who start in a basic skills course who complete a transfer level mathematics course.	To support the students in MAT-52, MAT-65 was redesigned to better prepare students for MAT-52 Ongoing assessment of MAT-52 to identify weaknesses in the course and teaching methodology.	Goal 1: Increased Student Achievement and Success Goal 5: Strengthen Student Learning	No, it is not limited to online classes, but online classes are part of the consideration.
Increase the percentage of students who take MAT-10 who successfully complete MAT-1B	Conduct a comprehensive study of the MAT-10 -> MAT1B sequence (STEM sequence) to find gaps in the curriculum and make improvements to increase retention and success.	Goal 1: Increased Student Achievement and Success Goal 5: Strengthen Student Learning	No.
Remove math courses from the Norco Catalog that are not offered at Norco College.	Discuss and vote in Math Department meeting	Goal 6: Demonstrate Effective Planning Processes	No.
Complete assessments of all remaining courses which have not yet been assessed or not been assessed in the last two years.	Assess at least one SLO from each course during each final exam.	Goal 6: Demonstrate Effective Planning Processes	No.

**Your unit may need assistance to reach its goals. Financial resources should be listed on the subsequent forms. In addition, you may need help from other units or Administrators. Please list that on the appropriate form below, or on the form for "other needs."*

Norco College Annual Instructional Program Review Update

Unit: _____Mathematics_____

Contact Person: _____Bob Prior/Jeff Mulari_____

Date: _____May 17, 2017_____

Current Human Resource Status

6. Complete the Faculty and Staff Employment Grid below. Please list full and part time faculty numbers in separate rows. Please list classified staff who are full and part time separately:

Faculty Employed in the Unit		
Teaching Assignment (e.g. Math, English)	Full-time faculty or staff (give number)	Part-time faculty or staff (give number)
Mathematics	9	36

Classified Staff Employed in the Unit		
Staff Title	Full-time staff (give number)	Part-time staff (give number)
IDS	1	0

7. Staff Needs

NEW OR REPLACEMENT STAFF (Administrator, Faculty or Classified)¹

List Staff Positions Needed for Academic Year <u>2017-18</u> Please justify and explain each faculty request as they pertain to the goals listed in item #3. Place titles on list in order (rank) or importance. Please state if the request impacts Distance Education.	Indicate (N) = New or (R) = Replacement	Number of years requested	Annual TCP*
1. Full-time “Visiting Professor” (one year temporary full-time) <u>Justification:</u> to replace Dr. Jason Parks, interim Dean of Instruction. This request does not directly affect Distance Education.	R	1	\$146,272 However, due to losing a F/T faculty in Column F and replacing with someone in Column C or D, the effective cost from 2016-17 to 2017-18 is less than \$0.
2. <u>Justification:</u>			
3. <u>Justification:</u>			

* TCP = “**Total Cost of Position**” for one year is the cost of an average salary plus benefits for an individual. New positions (not replacement positions) also require space and equipment. Please speak with your college Business Officer to obtain accurate cost estimates. Please be sure to add related office space, equipment and other needs for new positions to the appropriate form and mention the link to the position. Please complete this form for “New” Classified Staff only. All replacement staff must be filled per Article I, Section C of the California School Employees Association (CSEA) contract.

Requests for staff and administrators will be sent to the [Business and Facilities Planning Council](#). Requests for faculty will be sent to the [Academic Planning Council](#).

¹ If your SLO assessment results make clear that particular resources are needed to more effectively serve students, please be sure to note that in the “reason” section of this form.

Unit Name: Mathematics Department .

8. Equipment & Technology Not Covered by Current Budget²

List Equipment, Technology, Software or Equipment Repair Needed for Academic Year <u>2017-18</u> Please list/summarize the needs of your unit on your college below. Please be as specific and as brief as possible. Place items on list in order (rank) or importance. Provide the Asset Tag Number(s) for replacement requests. In the Justification, include how the item addresses the department's goals, and if it assists in remaining competitive with comparable institutions (if applicable). Please state if the request impacts Distance Education.	*Indicate whether Equipment is for (I) = Instructional or (N) = Non-Instructional purposes	How many students/Staff/ departments will directly benefit from this equipment/ technology?	Number of years requested	Use this link for Annual TCO*			
				Cost per item	Number Requested	Total Cost of Request	EMP GOALS
1. Change orientation of data projector in LIB 108 <u>Justification:</u> in the current configuration, the data projector in LIB 108 is pointed toward the smaller white board. Because there are a lot of Math classes in LIB 108, it is better to have more white board space -- which LIB 108 does have, but it's on an inaccessible wall. Re-orienting the data projector is required to utilize this longer white board space.	I	8-10 faculty and 300-400 students each semester	1				
2. Update the document camera in the following classrooms: ATEC 204, ATEC 210, and ATEC 211. <u>Justification:</u> the current document cameras are mostly inaccessible and hard to straighten; when used, too much time is spent on adjusting the camera and the writing surface material.	I	24-30 faculty and 900-1200 students each semester	1				
3. Classroom Projector/screen placement		Untold numbers	1				

² If your SLO assessment results make clear that particular resources are needed to more effectively serve students, please be sure to note that in the "reason" section of this form.

<p><u>Justification:</u> Current classroom projectors are not well suited for mathematics instruction, placing the projection in the center of the board and leaving small areas on either side of the whiteboard for use. New projectors would be placed above the whiteboard and project down immediately onto the board near the sides so instructors can efficiently utilize the rest of the board in conjunction with the projection.</p>							
<p>4. New chair-stools in WEQ W4, W5, and W6. <u>Justification:</u> For each of these classroom, the current chair-stool at the instructor's console attains a height barely high enough for the instructor to see over the computer on the console.</p>	I	24-30 faculty	1				
<p>5. Take out the tables in WEQ W4 and replace them with desks. <u>Justification:</u> Students have a hard time sitting three to a table. These table will comfortably seat two students but uncomfortably seat three.</p>	I	8-10 faculty and 300-400 students each semester	1				

* Instructional Equipment is defined as equipment purchased for instructional activities involving presentation and/or hands-on experience to enhance student learning and skills development (i.e. desk for student or faculty use). Non-Instructional Equipment is defined as tangible district property of a more or less permanent nature that cannot be easily lost, stolen or destroyed; but which replaces, modernizes, or expands an existing instructional program. Furniture and computer software, which is an integral and necessary component for the use of other specific instructional equipment, may be included (i.e. desk for office staff). ** Total Cost of Ownership requests are sent to the [Business and Facilities Planning Council](#).

Unit Name: Mathematics Department .

9. Professional or Organizational Development Needs Not Covered by Current Budget*³

List Professional Development Needs for Academic Year <u>2017-18</u> Reasons might include in response to assessment findings or the need to update skills to comply with state, federal, professional organization requirements or the need to update skills/competencies. Please be as specific and as brief as possible. Some items may not have a cost per se, but reflect the need to spend current staff time differently. Place items on list in order (rank) or importance. Examples include local college workshops, state/national conferences. Please state if the request impacts Distance Education.	Annual TCO*			
	Cost per item	Number Requested	Total Cost of Request	EMP Goals
1. Conference fees for full-time math faculty to attend AMATYC event Justification: AMATYC, the <i>American Mathematical Association of Two Year Colleges</i> , is holding its annual event in San Diego in November, 2017. It would be good for the full-time faculty to attend to meet colleagues from other colleges as well as learn of alternative delivery methods. Costs include conference fees, lodging, and gas.	\$500	10	\$5,000	1, 2, 5, 7
2. NADE Conference fees for full-time faculty Justification: NADE, the <i>National Association for Developmental Education</i> , is another avenue for full-time faculty to learn alternative delivery methods. This event is specifically aimed at Developmental Education, which is how more than 60% of our math classes are considered. The costs include fees, lodging, and airfare.	\$800	3	\$2,400	1, 2, 5, 7
3. Justification:				

*It is recommended that you speak with the Faculty Development Coordinator to see if your request can be met with current budget.

** These requests are sent to the [Professional Development Committee](#) for review.

³ If your SLO assessment results make clear that particular resources are needed to more effectively serve students, please be sure to note that in the “reason” section of this form.

Unit Name: Mathematics Department .

10. Student Support Services, Library, and Learning Resource Center (see definition below*) Services needed by your unit over and above what is currently provided by student services at your college. Requests for Books, Periodicals, DVDs, and Databases must include specific titles/authors/ISBNs when applicable. Do not include textbook requests. These needs will be communicated to Student Services at your college⁴

<p align="center">List Student Support Services Needs for Academic Year <u>2017-18</u></p> <p align="center">Please list/summarize the needs of your unit on your college below. Please be as specific and as brief as possible. Not all needs will have a cost, but may require a reallocation of current staff time. Please state if the request impacts Distance Education.</p>	<p align="center">EMP GOALS</p>
<p>1. <u>Justification:</u></p>	
<p>2. <u>Justification:</u></p>	
<p>3. <u>Justification:</u></p>	
<p>4. <u>Justification:</u></p>	
<p>5. <u>Justification:</u></p>	
<p>6. <u>Justification:</u></p>	

*Student Support Services include for example: tutoring, counseling, international students, EOPS, job placement, admissions and records, student assessment (placement), health services, student activities, college safety and police, food services, student financial aid, and matriculation. * These requests are sent to the [Student Services Planning Council](#) and the [Library Advisory Committee](#).

⁴ If your SLO assessment results make clear that particular resources are needed to more effectively serve students, please be sure to note that in the “reason” section of this form.

Unit Name: Mathematics Department .

11. OTHER NEEDS AND LONG TERM SAFETY CONCERNS not covered by current budget⁵

**** For immediate hazards, contact your supervisor ****

<p style="text-align: center;">List Other Needs that do not fit elsewhere.</p> <p>Please be as specific and as brief as possible. Not all needs will have a cost, but may require a reallocation of current staff time. Place items on list in order (rank) or importance.</p>	Annual TCO*			
	Cost per item	Number Requested	Total Cost of Request	EMP Goals
<p>1. <u>Justification:</u></p>				
<p>2. <u>Justification:</u></p>				
<p>3. <u>Justification:</u></p>				
<p>4. <u>Justification:</u></p>				
<p>5. <u>Justification:</u></p>				
<p>6. <u>Justification:</u></p>				

These requests are sent to the [Business and Facilities Planning Council](#), but are not ranked. They are further reviewed as funding becomes available.

⁵ If your SLO assessment results make clear that particular resources are needed to more effectively serve students, please be sure to note that in the “reason” section of this form.

Rubric for Annual Instructional Program Review - Part I only

Discipline:

Contact Person:

Reviewer:

Average Score:

Area of Assessment	0 No attempt	1 some attempt	2 good attempt	3 outstanding attempt
1. Retention, success, and efficiency rates have been identified and reflected upon.	No attempt to list retention, success, or efficiency data	Limited attempt to identify or discuss identified data	Clear attempt to identify and discuss identified data	Substantial attempt to identify and discuss/interpret identified data
2. Previous recourse requests stated and impact discussed.	No resource requests discussed	Limited discussion of resource requests or limited attempt to link to student learning.	Resources discussed and clear attempt to identify student impact	Resources discussed and substantial attempt to identify student impact OR No resources were requested.
3. There are annual goals for refining and improving program practices.	No annual goals stated	Limited/generic statement made regarding goal(s), lacks clarity or details	Clear statement made regarding goal(s), includes details	Well-defined statement made regarding goal(s), includes details, reasoning
4. Activities identified that support annual goals; connections made between goals/activities and Retention, Success, Enrollment, and Efficiency data.	No attempt made to identify activities	Limited/generic statement about activities; very limited attempt to connect to data from question 2 (where logical)	Clearly stated activities that support the goal(s); clear connection made to data from question 2 (where logical)	Well-defined activities that logically support the goal(s); definitive connections made to data from question 2 (where logical)
5. The annual goals are linked to the Mission and Educational Master Plan (EMP) of NC.	No link between the annual goals and the Mission or EMP	Limited attempt to link goals to Mission and EMP	Clear attempt to link goals to Mission and EMP	Well defined connection made between goals and Mission and EMP
6. Resource requests have reasons identified and completed data fields, including estimated dollar amount.	No reasons identified and incomplete data fields; or reasons identified, but incomplete or empty data field	Limited/generic/basic reasons provided, data fields completed	Clear requests for resources, all data fields fully completed	Well defined reasons for resources, all data fields fully completed
7. Linkages made between EMP/Strategic Plan Goals (SPG) with reasons for resource requests.	No linkage made between resource requests and EMP/SPG	Limited/generic/basic connection made between resource requests and EMP/SPG	Clear connection made between resource requests and EMP/SPG	Strong connection made between resource requests and EMP/SPG
Column scores				

Additional comments:

II. Norco College - Annual Assessment Update

USE ASSESSMENT DATA FROM fall 2015-spr 16

Purpose –An annual review provides an opportunity for reflection on all that has been accomplished and learned from your efforts in assessment. The annual review is a time to take stock of which courses and programs have undergone some scrutiny, and subsequently should help with planning for the upcoming years. Things we might learn in one cycle of assessment might actually help us to plan assessments in the next cycle, or might facilitate changes in other courses that weren't even included in the initial assessment. To this end, please complete the following with as much detail as possible. If you have any questions, please contact either Sarah Burnett at sarah.burnett@norcocollege.edu, or Greg Aycock at greg.aycock@norcocollege.edu, or talk to your NAC representative.

1. Identify where you are in the cycle of SLO assessment for each course you assessed in fall 2015 - spring 2016. Each response will be individualized; this means each completed column might look a little different. You may have a course in which you are implementing improvements to close the loop on an initial assessment that was completed in a different year. You might also have a course that only has an initial assessment and you haven't yet completed any follow-up or improvement activities. (Add rows to the chart as needed.)

Course number	SLO Initial Assessments	Semester assessed	Entered into TracDat fields	SLOs with Changes Made to course	Plan for completing identified Changes	SLOs not needing Changes (assumed loop-closed)	SLOs involved in Loop-Closing assessment
	Indicate which specific SLOs were assessed in the identified course		Yes or No	Identify which SLOs for had Changes Made identified, & simple reasoning	Identify semester & basic plan of action	Provide clear reasoning as to why loop closed	Indicate semester initial assessment was started and semester when loop was closed. Provide rationale for why you consider the assessment loop is closed
1C	2, 8, 12	Fall	Yes	2, 8	Spring 2016: SLO 2 – Try introducing spherical coordinates earlier in the course. SLO 8 -- The suggestion is to spend more class time on double and triple	SLO 12 -- 19 out 23 (83%) of the students correctly answered the question.	SLO 12 -- 19 out 23 (83%) of the students correctly answered the question.

					integrals.		
65	1, 2, 3, 5, 6, 7, 8	Spring		5, 6	<p>Fall 2016 – SLO 5 – Example: Susan purchased a pair of jeans for \$35.00. If the original price was \$50.00, what was the discounted percent? 43% of the students got this problem correct and 87% of the student had some knowledge of what they were doing. This is a very important real world application problem. This situation is something that occurs in the real world while shopping. We need to give the students several of these types of questions to practice. Based on what I see in the textbook. There is not a question like this in the book. We need to have worksheets that work on shopping problems of this</p>	<p>SLO 1,2 -- There were three questions on the final that pertain to this SLO. The students either vastly improved from prior semesters or performed well enough to meet the benchmark.</p> <p>SLO 3, 7 -- There were two questions on the final that pertain to this SLO. The students either vastly improved from prior semesters or performed well enough to meet the benchmark.</p> <p>SLO 8 -- There was one question on the final that pertain to this SLO. The students were able to translate the English statements, which contained algebraic words, into a mathematical statement. The students were then able to solve the equation that resulted from this English statement.</p>	<p>SLO 1, 2, 3, 7, 8 – see reasons in previous column</p> <p>SLO 2 – Benchmark was met: 70% of the students pass this question with a 2 85% of the students pass this question with a 1 or 2</p>

					<p>nature so the student can practice all the situations that can happen with shopping.</p> <p>SLO 6 -- I think we need to do more repetition with similar problems to help the students understand the concept. It is also important in word problems that the students are required to solve the word problems on their own or in groups.....not just copying the answer from the board.</p>		

2. a) How many Program Level Outcome **initial** assessments were you involved in **fall 2015 - spring 2016**? Indicate a total number per column. Name the AOE, ADT, GE and/or Certificate program.

To provide you with supportive information for this section, the following GE and AOE assessments were conducted in 2015-16:
 Initial assessment for GE PLO Information Competency and Technology Literacy
 Closing Loop for GE PLO Self-Development and Global Awareness

A Closing the Loop Assessment for AOE in Humanity, Philosophy and The Arts

A Closing the Loop Assessment for AOE in Social and Behavioral Sciences

AOE (Area of Emphasis)	ADT (Associate for Transfer)	GE (General Education)	Certificate

b) How many Program Level Outcome **loop-closing** assessments were you involved in **fall 2015 - spring 2016**? Indicate a total number per column. Name the AOE, ADT, GE and/or Certificate program.

AOE (Area of Emphasis)	ADT (Associate for Transfer)	GE (General Education)	Certificate

3. Please describe any **Changes** you made in a course or a program in response to an assessment. Reflect on the impact you determine the changes may have had on student learning, student engagement, and/or your teaching. (Add rows as needed)

Course	Changes Made Please click on "Choose an item & select from the drop down menu – content can be modified to suit your needs. Type in "other" approach taken	Impact of changes on student learning, engagement, and/or teaching
	Choose an item.	

4. Identify any assessments that indicate a modification should be made to the Course Outlines of Record (COR), the Student Learning Outcomes (SLO), or Program Level Outcomes. State the modification.

Identify COR, SLO or PLO to modify	State Suggested Modification	Reasoning

- Have you shared your assessments, outcomes, improvements etc. with your discipline? How? If not, how do you plan to do so in the future? (For a more complete answer, please include any meeting dates, agenda, and/or minutes, emails between faculty members, conversations captured in college, department, or discipline meetings – include these data as an Appendix at the end of this document)

We will begin sending out any meaningful assessment data for our courses in the Fall 2017 semester. We will email the data to the math faculty prior to the start of the fall semester.

- Did any of your assessments indicate that your discipline or program would benefit from specific resources in order to support student learning, and/or faculty development? If so, please explain.

Resources State the resources identified to support student learning and/or faculty development	Assessment Name the assessment(s) that indicated resources are needed Identify course, SLO & semester	Reasoning Briefly explain what you learned in the assessment that indicates the resource might be beneficial

- What additional support, training, etc. do you need in the coming year regarding assessment?

Scoring Rubric for Annual Program Review of Assessment (Part II only)

Assessment Unit Name: _____ Average score _____

	0	1	2	3	Comments
Initial SLO assessments	No evidence provided 0	Limited evidence of on-going SLO assessment (1 incomplete assessment – Plan but no results) 1	Clear evidence of on-going SLO assessment (1 complete assessment) 2	Clear and robust evidence of on-going SLO assessment (2 or more complete assessments) 3	
Loop Closing Assessments	No evidence provided 0	Limited evidence of Loop-closing assessment (Course identified as “loop-closed”, but no Change Plan identified, or reasoning provided) 1	Clear evidence of loop-closing (At least 1 Change Made plan in place, or clear reasoning of “loop closed” for at least 1 initial assessment) 2	Clear and robust evidence of loop-closing (Multiple Change Made Plans in place, or very clear justification for “loop closed” for multiple initial assessments) 3	
Assessment input into TracDAT	No assessments in TracDat format or Repository 0	Assessment completed are in word/pdf in Document Repository 1	Assessments identified have Assessment Plan, but not all have Results 2	All identified assessments have a complete report (Plan and Results) in TracDat data field) 3	
Attempts to improve student learning	No indication of any changes made to any courses, and no clarification provided 0	No attempts to change any courses, teaching approaches, and no clarification or reasoning as to why not 1	Evidence of an attempt to implement a change in a course or teaching approach provided, or simple clarifying statement regarding why no specific improvement is needed 2	Multiple attempts made to implement changes to courses or teaching approaches, or clear and supported clarification why no improvement is needed 3	
Dialogue across the discipline	No dialogue or attempt to communicate results 0	Limited demonstration of dialogue or communication within the discipline, department, college 1	Clear demonstration of dialogue and sharing of assessment within discipline, department, or college 2	Robust and systematic dialogue and communication demonstrated within discipline, department, or college 3	
Participation in PLO assessment (bonus points averaged into total score)		Engagement in at least 1 initial PLO assessment and/or Engagement in at least 1 PLO closing-the-loop assessment fall ‘14-spr ‘15 1			
Total for Each Column					