Program Planning and Assessment (PPA)
for Academic Programs

Comprehensive Review, Annual Review & Action Plan

Spring 2015

The purpose of Program Planning and Assessment at Hartnell College is to obtain an honest and authentic view of a program and to assess its strengths, opportunities, needs, an

I. Comprehensive Review a. Overall Program Effectiveness, b. Instructional Staffing, c. CTE Programs Labor Market & Achievement, and d. Program Goals.

II. Annual Review a. Course Data & Trends, b. Teaching Modality, c. Curriculum, d. Outcomes, and e. Previously Scheduled Activities.

III. Annual Action Plan a. New Activities and b. Resource Requests.

INSTRUCTIONS

- For programs/disciplines scheduled for comprehensive review in spring 2015, please complete Sections I, II, and III.
- For programs/disciplines scheduled for annual review, please complete Sections II and III.

I. COMPREHENSIVE REVIEW

Please complete this section for programs/ disciplines scheduled for comprehensive review in spring 2015. Go to Section II for programs/disciplines scheduled for annual review in spring 2015.

A. OVERALL PROGRAM EFFECTIVENESS

Describe your

2. What staffing factors/ challenges

D. PROGRAM GOALS

1. List and describe program / disciplinary goals for the next comprehensive review cycle. Be sure to highlight innovative, unique, or other especially noteworthy aspects.

In considering your program's future goals, please review Hartnell's vision and mission statements.

VISION STATEMENT

> Hartnell College will be nationally recognized for the success of our students by developing leaders who will contribute to the social, cultural, and economic vitality of our region and the global community.

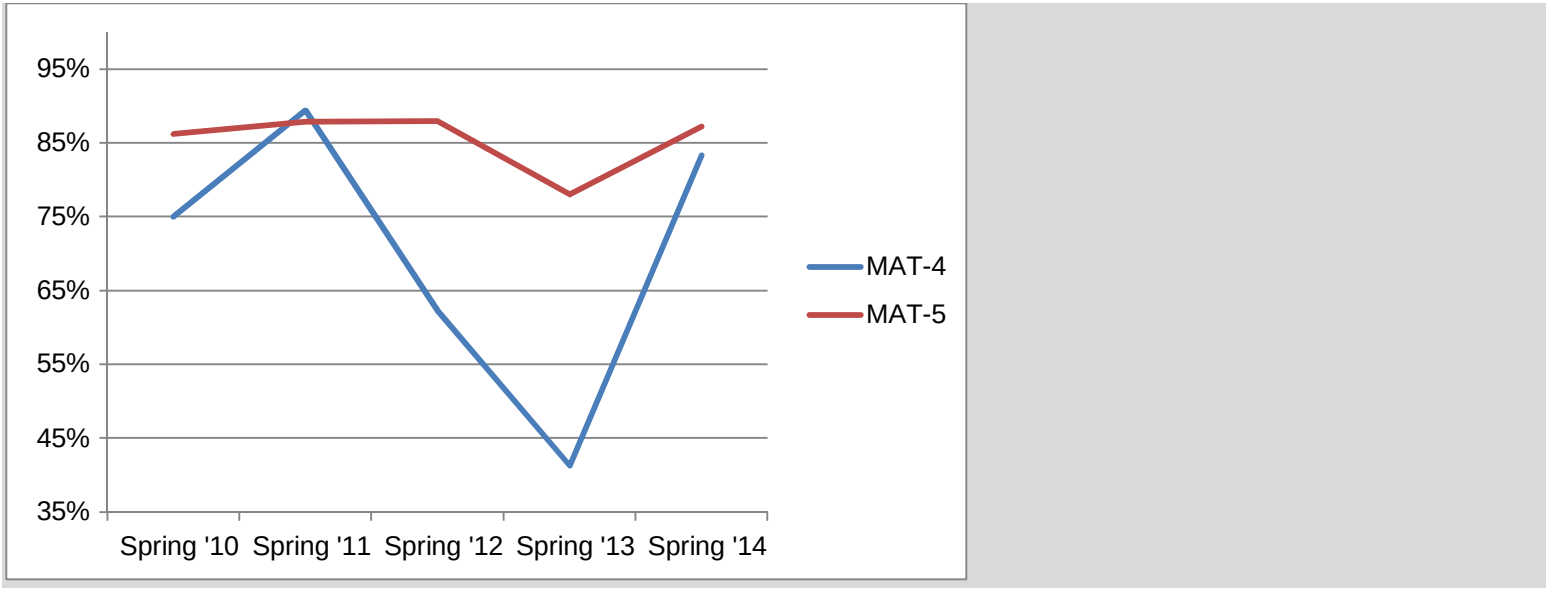
MISSION STATEMENT

> Foc stt

This section must be completed for ALL academic programs, including those scheduled for a comprehensi

SUCCESS

3. Review the success data. Describe and analyze any



The widely varying student success rates over the period is a concern for the department. These courses are required for STEM majors. Failing or dropping one of these sequential courses will put students at least a semester behind in their math sequence and since math is a prerequisite to many other STEM courses, they will also fall behind in their other courses.

DEGREES AND CERTIFICATES

4. De

B. TEACHING MODALITY

1. Enter the number of Distance Education Courses, both fully online and hybrid sections, along with the number of full-time and adjunct faculty.

Term	No. of DE/Online

2. Com par

3. Describ

4. Compare student retention in the DE teaching environment with retention in the face-to-face teaching environment in the same course. Are there differences? To what do y

courses in hybrid mode will address some of the issues and challenges that distance education courses face. Communication between students and teachers in a distance education environment is vital for student retention and success; so having effective communication between them will create interest and engagement in math distance education courses. Finally, creating a channel for students to comment on an ongoing basis during the semester and at the end of the semester will significantly help the online instructor to adjust teaching so that students feel comfortable and are engaged in the DE classes.

MAT 45	M. Yadh	Fall 201
MAT 20(	M. Webe	Spring 201

D. OUTCOMES

Use your Program Outcome Maps to assist you in this subsection. As you plan your course ass

[Begin response here]

E. PREVIOUSLY SCHEDULED ACTIVITIES

This subsection focuses on activities that were previously scheduled. An activity can address many different aspects of your program/discipline, and ultimately is undertaken to improve or enhance your program/discipline, and keep it current.

Activity scheduled	What success has been achieved to date on this activity?	What challenges existed or continue to exist?	Will activity conti

1. Math Learning Center	Budget requests for 2015-16, submitted through the Spring 2014 math PPA and mirrored in the overall MSE division budget request), include $150,000 for a faculty working in the center, including a coordinator; $60,000 for an instructional specialist (classified position); $28,000 for student tutors; $10,000 for software; $15,000 for computers; and $5000 for supplies such as books and calculators (last two items flagged for grant funding in the MSE division budget request). None of these funds have actually been allocated yet, but we believe the opening of the Math Learning Center is planned for Spring 2016.	Key parameters still undefined include the physical space the center is to occupy; how it will generate FTES; and how the center will integrate with the L Series math classes, the Tutorial Center, and the STEM tutoring program.	Yes.	Yes. See the Annual Action Plan, Activity 1.

2. Strengthening
common
mpro

4. Increase number o math faculty	One new tenure-track math instructor and one full-time temporary math instructor have been hired. (The full-time temporary instructor is filling in for a tenured instructor who is on leave for an unknown period.)	The number of available full-time math faculty is effectively unchanged since

This section must be completed for

1. List information concerning new projects or activities planned. The first activity listed should be the most important; the second activity listed the second most important, etc. Please keep in mind that resources needed, if funded, would not be approved until spring 2016 and provided until FY 2016-17. Ongoing activities involving resources that will no longer be available from grant funds starting FY 2016-17 must be planned for appropriately.

Activity	Strategic Plan Goal(s) No. & Letter (e.g., 5A)*	Related Courses, SLOs, PLOs, or goals	Desired Outcome(s)	Resources Needed	Person Responsible	Estimated Date of Completion (can be more than one year in length)	Comments

Activity 1: Offering More Sections

a) Describe the new activity or follow-on activity that this resource will support.

This new activity will support the creation of new sections for all math courses. This will relieve faculty of the overload

Strategic Plan Goal
This activity supports 2A and 2B2 In the area of mathematics: it will provide increased access, innovative, and collaborative learning that will help students pursue and achieve success in their mathematics education. Offering more sections will address and meet their diverse learning needs in mathematics. Note: all calculations below are excluding the lab and online courses, since the load data for them is incorrect in the database. They would add to the need slightly, if included. So this analysis is conservative and the problem slightly underreported. The ability to staff math classes has been problematic in our department for several years. Since 2005-06 the department has not grown at all. New full-time positions have been added but these new positions have not kept up with attrition from the department in the last decade. In 2014-15, the same 12 full-time faculty are teaching a number of sections that has grown by 49 percent. If all courses in the department were taught by full time faculty (with a 15 unit load), we would need 22.7 full-time faculty. In other words, the department staffing total is 22.7 FTEF, but there are only 12 full-time faculty and the rest of the staffing is made up of part-time faculty and full-time faculty overloads. The graph below illustrates the FTEF need (based on course offerings) compared with the number of actual FT faculty over time. There is no expectation that all FTEF offered will be covered by FT faculty, but the gap between the FTEF offered and the actual number of FT faculty has grown by 318% percent in the last decade. For 2014-15, only 48 percent of units offered by the department are taught by full-time faculty in their full-time load. 39 percent of math units are being taught by part-time faculty, and 14 percent are being taught by full-time faculty as overload. This is nowhere near the scenario envisioned by the goal of the 75/25(y)-6.12877( )6.41668(f)5.5682(u)5.98488(l)10.4167(l)-9.54545( )6.41668(t)-41.9773(f)

instructors for our courses, at these numbers it can be difficult. This could lead to a situation where someone is hired out of reluctance to cancel a class rather than because there is a qualified applicant. Also, part-time faculty are not required to and often do not hold office hours. They are largely unavailable to their students outside of class. Part-time faculty participation is neither required nor compensated for departmental or college governance activities, professional development, and work on the mathematics curriculum. There is no question that it is in the best interest of our students to have as many courses as possible taught by full-time faculty who are fully participating members of the department. The work of a healthy and vibrant Mathematics Department depends on an adequate number of full-time faculty, something we clearly do not have.

	Majors Courses										
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
MAT 3A	3	3	3	4	3	4	5	4	5	6	
MAT 3B	2	3	3	2	2	2	3	4	4	4	
MAT 3C	2	2	2	2	2	2	2	2	2	3	
MAT 4	1	1	1	1	1	1	1	1	1	1	
MAT 5	1	1	1	1	1	1	1	1	1	2	% increase
Total	9	10	10	10	9	10	12	12	13	16	78%
#FT faculty	12	12	10	9	10	11	10	11	12	12	0%

There are many adverse impacts from the stagnant level of full-time faculty staffing. The Mathematics Department knows that majors courses should be taught by instructors who have knowledge of the entire Mathematics degree program at Hartnell, as well as the courses into which students will transfer. These courses are directly tied to both STEM completions (degrees and transfers) and to Program Level Outcomes. Additionally, it is crucial that the curricula of the major courses articulate throughout the CCC, CSU, and UC systems. As a consequence, the Mathematics Department strives to have the major courses taught by full-time faculty. This has become extremely difficult with the growth of Hartnell's STEM program. Demand for the major courses has been growing. Since 2005-06 the number of majors course sections has increased by 78 percent, while the number of full-time faculty has not changed.

A similar impact exists for the other groups of courses. The number of sections of transfer level courses offered has increased by 76 percent.

The number of sections of pre-transfer courses has increased by 35 percent.

Students also benefit from the office hours that are part of a full time faculty load, the connection of the faculty to the college

Another way that the Mathematics Department has tried to support students is by allowing more students than the contract limit to enroll in their classes. In all, there were 6244 students enrolled in 153 sections. The faculty accommodated 277 students over what has been determined to be the reasonable size for math classes. Again, this practice is detrimental to student learning, leading to fewer collected assignments, less feedback to students about their work, and less ability to try innovative techniques in the classroom.

Administration support is a major barrier. Current levels of reserves (20%) prevent the hiring of tenure track faculty.

Activity 2: Launch the Math Learning Center

1. This item is used to describe how the new activity, or continuing new activity, will support the program/discipline.

Consider:

- Faculty
- Other staffing
- Facilities
- Equipment (non -expendable, greater than $5,000), supplies (expendable, valued at less than $5,000),
- Software
- Hardware
- Outside services
- Training
- Travel
- Library materials
- Science laboratory materials

a) Describe the new activity or follow -on activity that this resource will support.

The Math Learning Center will address and meet students' diverse learning needs in mathematics to promote student success in mathematics at all levels. This will be accomplished through direct one-to-one tutorial support, collaborative workshops, instructional technology tailored to different learning styles, multilingual support, and the support of faculty in directing their students to the Math Learning Center.

Lab space, an instructor/coordinator, tutors, computers, and software (educational software targeted for math students as time keeping software for tracking positive attendance hours) are essential to its success. As usage of the center ramps up, it will also be evi

2) Program level Outcome (list applicable program outcome)
3) Course level Outcome (list applicable course level outcome)
4) Program/ Discipline Goal (list applicable program/discipline goal)
5) Strategic Plan Goal (licome)

Increased student success and retention in math courses at all levels is expected as a result of establishing the Math Learning Center.

d) What are the barriers to achieving success in this activity?

Activity 3: Institutionalize the Math Academy

Another successful program for improving STEM student outcomes is the Math Academy. Initially funded by Title V grant P031S090007, it has been doubled in size and enhanced to include more subjects by the HSI STEM and Articulation grant. Math Academy is a two-week, intensive math

Success with the Math Academy model has impacted and strengthened the college by providing a successful model that can now be applied to other disciplines. The Science Academy, including sections for both Chemistry and Biology, and funded by this grant, is a direct example of the application of the Math Academy model to other disciplines. The success of The Math Academy's Lifeline tutorial program has led to the addition of Lifeline tutoring to the Science Academy and to tutors assigned to particular class sections. Using state-level Student Success funding, the English as a Second Language department has developed and implemented a successful ESL Institute using the Math Academy strategies and structure as a model. Currently there is discussion about expanding the Math Academy model to Academy Weeks that would include not only Math and Science Academies, but an ESL Institute, an Academic Reading/Writing Academy and a Fine Arts Academy.

The cost of the Math Academy is approximately $400 per student.

Activity 4: Smart and collaborative learning space

a)

effectively.

Activity 5: Faculty Professional Development

a) Describe the new activity or follow-on activ

3B: To attract and retain highly qualified employees, Hartnell College is committed to providing and supporting relevant, substantial professional development opportunities.
5A: developing and employing a culture of innovation that will lead to improved institutional effectiveness and student learning.

b) Does this activity span multiple academic years?

NO

d) What measureable outcomes are expected from this activity? List indicators of success.

Scholarship and professional growth as evident from faculty participations, presentations and publication at professional venues, and/or reported in the faculty regular review folder.
Proposed curricular changes and implementation of innovative learning methods
Guest speaker sessions or workshops initiated by the mathematics department.

e) What are the barriers to achieving success in this activity?

Lack of time.

B. RESOURCE REQUESTS

If new/additional resources are needed for your program/discipline, it is important that you identify them and project their cost, and that these resources and costs be considered through the College s integrated planning (governance, budg

6.) Faculty Professional Development							$1000

APPENDIX A. Strategic Priorities & Goals
(from Hartnell College Strategic Plan 2013-2018)

Priority 1: Student