

# Instructional Program Review Four Column Report

## Program Review - Mathematics

---

**Mission Statement:** The Mathematics Department of Moreno Valley College empowers a diverse community of students to develop mathematical potential to meet their academic and professional learning goals.

**Has mission statement changed since last review?:** No

**Align your discipline mission to college mission:** 1. challenges, and empowers our diverse, multicultural community of learners to realize their goals;

**Semester submitted:** Fall 2015

**Major developments and changes:** The mathematics discipline of Moreno Valley College officially became its own independent department in July of 2014. We are currently operating with 7 full time tenured faculty and 1 one-year temporary faculty. We look forward to possibly increasing our tenured faculty to 10 by 2016, with our one-year temporary position becoming a full time tenure track position.

The Mathematics Department has implemented the full curriculum to serve the needs of all students. Changes include the following: MAT 37 (Algebra for statistics) has been offered at least once per year since Spring 2012. This course is an accelerated pathway for students who need statistics for their major. MAT 65 (Arithmetic/Pre-Algebra) replaced our 2-semester sequence of MAT 63 (Arithmetic) and MAT 64 (Pre-Algebra) since Fall 2012. In Spring 2014, the number of MAT 1A (Calculus) sections offered were increased from 1 per semester to 2 per semester. In Spring 2014, 9 sections of 8-week accelerated courses were added to assist students who were not able to get into math courses at the beginning of the term. In Fall 2015, a compressed course sequence of an 8-week MAT 52 (Elementary Algebra) followed by an 8-week MAT 35 (Intermediate Algebra) will be analyzed to perhaps shorten the sequence from 2 semesters to 1 semester. We are also looking into the possibility of redesigning our MAT 52 and MAT 35 course into a combination course and doing something similar with our MAT 36 (Trigonometry) and MAT 10 (Pre-Calculus) course.

Our Math Lab has upgraded their computers for the students to use and now offers drop-in tutoring for students. Students have a choice to either sign up for 30 minute sessions for tutorials or choose the drop in tutoring for quick questions. These 2 options have increased the usage of our Math Lab.

**Year One Objectives:** 1. Faculty will follow up on previous SLO assessment to address ones where standards were not met to improve teaching and learning.

2. Evaluate the relevancy of the MAT 90 courses, and decide whether to offer or discontinue the sequence.

3. Request an increased ratio of full time to adjunct faculty in the Math Department by increasing the number of full time faculty.

4. Increase number of sections offered in courses with high demand.

5. Continue exploring pathways to shorten exit sequences that allow students to complete their math sequences in less time.

6. Utilize classroom computers to support students' learning needs.

7. Promote the Math Lab to increase awareness and utilization of service.

8. Improve course success rates for African-American/Black students and students in the age group 20-24, and increase student success rate for both genders, while maintaining success equity between the genders.

**Status of Year One Objectives:** Ongoing

**Year Two Objectives:** 1. Continue to assess all SLOs and discuss strategies for improvement.

2. Evaluate our course offerings to meet the needs of our students.

3. Assess our course success rates for African-American/Black students, students in the age group 20-24 students and student success rate for both genders.

**Status of Year Two Objectives:** Ongoing

**Year Three Objectives:** 1. Faculty will follow up on and evaluate SLOs that did not meet the performance target on the previous year, and develop strategies for improving teaching and learning.

2. Assess the math lab and discuss strategies for improvement.

3. Adjust our course offerings to meet the need of our students.

**Status of Year Three Objectives:** Ongoing

**Year Four Objectives:** 1. Assess all SLOs to continue the ongoing efforts to improve teaching and learning.

2. Implement strategies for improving the math lab.

3. Improve course success rates for student groups that are below equity.

**Status of Year Four Objectives:** Ongoing

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
<b>Summary of Curriculum Status for 2015 Four-Year Report</b> - Status of Course Outlines of Record (CORs) <b>Objective Status:</b> Ongoing <b>Type:</b> Curriculum	<b>CurricUNET</b> - A major part of the program review process is to complete a thorough review of the Course Outlines of Record (CORs). Referring to the "IPR - Report on CORs and Course Offering/Rotation" in Ad Hoc Reports, review the COR dates to ensure that all CORs are	<b>Report Submitted:</b> 2015 - 2016 (Fall 2015) <b>Performance Target Met:</b> Yes All MAT CORs are dated 2010 or later. All active math courses are being offered at least once per year. In active courses, MAT 90 courses are currently being evaluated for their relevancy to decide whether to offer or discontinue the sequence. In addition, ILA 800 will no longer be offered after Fall 2015. (09/24/2015)	<b>Action Plan:</b> Keep CORs current. Finalize discussions related to MAT 90 courses. (09/24/2015)

List Program Objectives or Data	Describe Objectives or Data	Evaluation of Objective and/or Data Analysis	Action Plans
	<p>dated 2010 or later and all active math courses have course offering/rotation plan in place.</p> <p><b>Performance Target :</b> All Course Outlines of Record have a date of 2010 or later and all active math courses have course offering/rotation plan in place.</p>	<p><b>Related Documents:</b>  <a href="#">Copy IPR - Report on MAT CORs and Course Offering_Rotation (1).pdf</a></p>	
<p><b>Success Rates by Course for Ethnicity, Age and Gender</b> - Analyze course success rates by Ethnicity, Age and Gender  <b>Objective Status:</b> Ongoing  <b>Type:</b> Data Analysis  <b>Start Date:</b> 05/18/2015</p>	<p><b>Direct: Institutional Research or Other Data - ETHNICITY</b> Data for the past five years shows that the average success rates of all ethnic groups other than African-American/Black students are comparable to or better than the average success rate of all MVC students. African-American/Black students have the lowest average success rate of 39.94%, which is about 10% lower than the average success rate of all MVC students. Also, African-American/Black students have a significantly lower proportionality index than all other ethnicities.</p> <p><b>Performance Target :</b> The Math Department would like to improve equity for the African-American/Black students during 2015-2019.</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> In progress  The current proportionality index for African-American/Black students in cohort completion of basic skills math is 0.68, which is far below equity. We would like to improve that index by at least one level, bringing it above 0.7. (05/08/2015)</p>	<p><b>Action Plan:</b> The Math Department is eager to work with the Student Equity Committee on proposals for a First Year Experience program and accelerated courses. Math faculty has actively participated in the Accelerated course and First Year Experience workgroup in Winter 2015 to conduct research and make recommendations in improving student equity. (05/08/2015)</p>
	<p><b>Direct: Institutional Research or Other Data - AGE</b> Students in three age groups, 20-24, 25-39 and 40+ were identified in our student equity plan as below equity or far below equity in performance in remedial cohort completion rates. The age</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> In progress  Students who have been out of high school for a couple years and take math classes in their first year at college will have better remedial courses completion rates. (05/11/2015)</p>	<p><b>Action Plan:</b> The Math Department is eager to work with the Student Equity Committee on proposals for a First Year Experience program and accelerated courses. Math faculty actively participated in the</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
	<p>group 20-24 comprises the largest portion (33.7%) of the remedial math student population while the age group 25-39 consists of only 11.5% and the age 40+ consists of only 8.4%.</p> <p><b>Performance Target :</b> The Math Department would like to improve the cohort completion rate indices for students in the age group 20-24 from below equity to equity over the next 4 years.</p>		<p>accelerated course and First Year Experience workgroup in Winter 2015 to conduct research and make recommendations in improving student equity. (05/11/2015)</p>
	<p><b>Direct: Institutional Research or Other Data - GENDER</b> Math students of both genders have very similar success rates. On average, there is less than 1% difference between the two genders for the last five years. In the 2013-2014 academic year, the success rate for male students in all math courses was 52.7% and the success rate for female students in all math courses was 52.1% while the success rate for students in all MVC courses was 52.4%.</p> <p><b>Performance Target :</b> The Math Department would like to increase the students success rate in both genders by 2% points over the next 4 years. The average success rate during 2009-2014 was 49.61% for female and 50.2% for male. We would like to increase this to 51.61% for female students and 52.2% for male students during 2015-2019.</p> <p>The Math Department would like to maintain equity between the genders.</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)</p> <p><b>Performance Target Met:</b> In progress</p> <p>Students who utilize supporting services outside of class such as tutoring help and supplemental instruction regularly have better success rates. (05/11/2015)</p>	<p><b>Action Plan:</b> Encourage students to utilize all learning resources outside of class on a regular basis. (05/11/2015)</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
<p><b>Increase the number of full time math faculty</b> - Add more full time math faculty.</p> <p><b>Objective Status:</b> Ongoing</p> <p><b>Type:</b> Other types of Objectives</p> <p><b>Start Date:</b> 06/02/2014</p>	<p><b>Direct: Institutional Research or Other Data</b> - Add 3 more full time math faculty to increase the ratio of full time to adjunct faculty in the Math Department.</p> <p><b>Performance Target :</b> Increase the number of full time math faculty by 3 over the next four years.</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)</p> <p><b>Performance Target Met:</b> No</p> <p>1) We need to increase the ratio of full time to adjunct faculty in our discipline.</p> <ul style="list-style-type: none"> <li>-There were 7 full time and 32 part time math faculty in Fall 2014. The ratio is 7 to 32. There were 7 full time and 30 part time math faculty in Spring 2015. The ratio is 7 to 30.</li> </ul> <p>2) We also have 0.75 reassigned time for the 2015-2016 academic year for 2 full time faculty members. We need additional full time faculty members to disperse the increased workload. As the number of students increases at our college, the full time faculty cannot adequately support student learning as well as other commitments such as institutional needs outside of the classroom (committee work, student equity work groups, accreditation work, program review, evaluations, and hiring committees).</p> <p>3) Offer more opportunities for faculty to contribute on committees and advise clubs through student activities at the college and allow more opportunities for ethnic diversity within our full time faculty.</p> <p>4) Full time faculty have office hours that allow individual assistance outside of the classroom, which helps to improve success rate.</p> <p>5) We need more full time faculty to teach basic skills classes. Students tend to have higher success rates when they are taught by full time faculty.</p> <ul style="list-style-type: none"> <li>- Over 90% of First-time MVC students placed in basic skills math classes.</li> <li>- In Fall 2014, we offered 16 MAT 52 (Elementary Algebra) and only 3 were taught by full time.</li> <li>- In Spring 2015, we offered 14 MAT 52 (Elementary Algebra) and only 5 were taught by full time.</li> <li>- In Fall 2014, we offered 11 MAT 65 (Arithmetic/Pre-Algebra) and only 3 were taught by full time.</li> <li>- In Spring 2015, we offered 9 MAT 65 (Arithmetic/Pre-Algebra) and only 2 were taught by full time.</li> </ul>	<p><b>Action Plan:</b> Request 3 full time tenure track Math positions. (05/11/2015)</p> <p><b>Action Plan Number:</b> 2</p>

*List Program Objectives or Data*

*Describe Objectives or Data*

*Evaluation of Objective and/or Data Analysis*

*Action Plans*

6) Due to the requirement of several ADTs, we have increased the number of our statistics classes (and will continue to do so), so we need additional full time faculty to teach statistics classes and eventually develop an honors statistics class.

-In Fall 2014, we offered six MAT 12 (Statistics) classes, but none were taught by full time.

-In Spring 2015, we offered 5 MAT 12 (Statistics) classes, but none were taught by full time.  
(05/11/2015)

**Accelerated math pathways** - Explore pathways to shorten exit sequences  
**Objective Status:** Completed  
**Type:** Curriculum  
**Start Date:** 02/13/2012

**Direct: Institutional Research or Other Data** - 1. Offered a total of five accelerated Algebra for Statistics classes, MAT 37. Institutional Effectiveness has shown that the accelerated math class increases the percentage of students achieving success in a transfer-level statistics class.

2. Offered MAT 65 starting in Fall 2012. MAT 65 is an accelerated course which combines Arithmetic and Pre-Algebra together. Students who are placing in the lowest levels would be able to move to Elementary Algebra in one semester instead of the two previously required for MAT 63 (Arithmetic) and MAT 64 (Pre-Algebra).

**Performance Target :** Increase the offering of accelerated Algebra for Statistics classes, MAT 37 to two sections per semester and completely replace MAT 63, MAT 64 and MAT 90s with MAT 65 by Fall 2015.

**Report Submitted:** 2015 - 2016 (Fall 2015)

**Performance Target Met:** Yes

We offered a total of five MAT 37 (Algebra for Statistics) classes since since Spring 2012, and we are offering two sections of MAT 37 from Fall 2015.

Also, we have been increasing the offering of MAT 65 (Arithmetic/Pre-Algebra) to replace MAT 63, MAT 64 and MAT 90s. By doing so, students are able to move to Elementary Algebra in one semester and the change does not adversely affect student success rates. (05/12/2015)

**Notes/Reflections:** The following are district-wide success rates for the math sequence through transfer level for both traditional and accelerated (MAT 37 --> MAT 12) pathways, based on starting point:  
MAT 63 start: traditional 2.2%, accelerated 36.1%  
MAT 64 start: traditional 2.9%, accelerated 33.3%  
MAT 52 start: traditional 5.0%, accelerated 45.2%  
MAT 35 start: traditional 14.4%, accelerated 52%

**Related Documents:**

[Update for traditional math pipeline.04.10.15.docx](#)

**Action Plan:** We are increasing our offerings of MAT 37 (Algebra for Statistics). There will be 5 sections in 2015-2016. We will also evaluate the possibility of offering a combination course of Elementary and Intermediate Algebra. (09/24/2015)

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
<p><b>Utilize computers to support students' learning needs</b> - Replace netbook computers with laptop computers to support students' learning needs in various math courses or designate a classroom with computers exclusively for math courses.</p> <p><b>Objective Status:</b> Ongoing  <b>Type:</b> Curriculum  <b>Start Date:</b> 06/02/2014</p>	<p><b>Report(s)</b> - Currently, we have 30 netbooks for instruction and these computers are very small and have screens that are difficult to see, especially if students have vision problems. They are also approaching end of life. We are adding more sections of MAT 37 (Algebra for Statistics) that make use of computer software. In addition, because of changes to curriculum to Statistics courses to meet C-ID requirements, we must incorporate use of technology such as Excel, SPSS, or Minitab in our instruction. Because of new ADT degrees, we have been adding more Statistics sections. For both the MAT 37 (Algebra for Statistics) and MAT 12 (Statistics) courses it is desirable for students to be able to work on group projects, and a classroom with desktop computers is not conducive to this type of instruction. Ideally, we would like to have laptop carts that hold at least 45 laptops (the class caps are 45 for Statistics), but we will accept a classroom with computers where we can schedule math classes.</p> <p><b>Performance Target :</b> Acquire a classroom set of at least 45 laptop computers or a classroom with computers designated for math classes.</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> No  We made the request for the laptop computers in our last program review but we have not yet received them. (05/12/2015)</p>	<p><b>Action Plan:</b> Renew our request for the laptop computers and laptop cart as well as offer an alternative option to our request. The alternative request is to have a classroom with computers available for Math classes. (05/12/2015)  <b>Action Plan Number:</b> 3</p>
<p><b>Increase section of courses offered</b> - Continue adding sections that have been cut and increase sections for</p>	<p><b>Direct: Institutional Research or Other Data</b> - Sections need to be increased, as budget allows, to allow</p>	<p><b>Report Submitted:</b> 2013 - 2014 (Spring 2014)  <b>Performance Target Met:</b> Fall 2014  At least 1 more section of MAT 12 (Statistics) should be</p>	<p><b>Action Plan:</b> Add more sections of MAT 65 (Arithmetic/Pre-Algebra). (05/08/2015)</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
<p>courses that have high demand.  <b>Objective Status:</b> Ongoing  <b>Type:</b> Class sections  <b>Start Date:</b> 08/26/2013</p>	<p>more students access to math classes to complete their educational goals.  <b>Performance Target :</b> Reduce the number of students on waitlist of math courses.</p>	<p>added, because of new ADTs that allow it as a general ed elective, the psychology degree requiring it for their research course, and the prerequisite for the PA program. The 2013-2014 waitlist count is 80.</p> <p>More sections of MAT 65 (Arithmetic/Pre-Algebra) need to be added to address long waitlists for these sections. The 2013-2014 waitlist count is 442. (11/18/2014)</p>	<p><b>Follow-Up:</b> Due the elimination of MAT 90s, 63 and 64, we need to add additional sections of MAT 65 to replace them. (05/11/2015)</p> <p><b>Action Plan:</b> Add at least 1 more section of MAT 12. (11/18/2014)</p> <p><b>Follow-Up:</b> We will add another section of MAT 12 in Fall 2015. (05/11/2015)</p>
<p><b>Math Lab</b> - Increase the awareness and utilization of the Math Lab service.  <b>Objective Status:</b> Ongoing  <b>Type:</b> Other types of Objectives  <b>Start Date:</b> 05/15/2015</p>	<p><b>Report(s)</b> - Increase the visibility of the Math Lab and encourage more students to utilize its service.  <b>Performance Target :</b> By the first week of Fall 2015, all math classrooms will have Math Lab information posted.</p>	<p><b>Report Submitted:</b> 2014 - 2015 (Spring 2015)  <b>Performance Target Met:</b> In progress  Math Lab tutoring service assists students with their learning needs, which helps improve their success rate. By informing students about the availability of the free tutoring service provided by the Math Lab and by encouraging them to utilize the service, we will increase the Lab's usage and student success. (05/15/2015)</p>	<p><b>Action Plan:</b> 1) Post Math Lab information in all math classrooms.  2) Provided Math Lab information to all math faculty to encourage them to put it in their courses syllabus and announce it to their students at the beginning of each term.  3) Participate in college-wide activities to promote the free tutoring service to our students.  4) Update our computers to provide a better learning experience for students who use computer assisted learning programs.  5) Update our textbooks and solutions manuals to the current edition to allow our tutors and instructors to better assists students with their learning needs. (05/15/2015)</p> <p><b>Action Plan Number:</b> 4</p> <p><b>Follow-Up:</b> In last resource request, we requested solutions manuals for Geometry, Differential Equations and Linear Algebra as well as the Linear</p>



<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
			Algebra textbooks but we did not receive them. We have been actively participating in various college-wide activities to inform and promote the free tutoring service to incoming and current students. (05/19/2015)
<p><b>Shorten time to completion for math sequences</b> - Develop curriculum and explore pathways to shorten exit math sequences, which allows students to complete their math sequences in less time.</p>	<p><b>Directly related to Outcome</b></p>	<p><b>Report Submitted:</b> 2014 - 2015 (Spring 2015)  <b>Performance Target Met:</b> Yes  Offer and assess accelerated course for statistics preparation   (05/08/2015)</p>	<p><b>Action Plan:</b> Offered a total of five Math 37, accelerated pre-statistics classes. Students who have successfully passed Math 37 would be able to take Math 12, a college level math course.  (05/08/2015)</p>
<p><b>Objective Status:</b> Ongoing  <b>Type:</b> Curriculum  <b>Start Date:</b> 05/05/2015</p>	<p><b>Schedule of Classes</b> - Explore pathways in the Schedule of Classes to assist student to shorten time to complete exit math sequences</p> <p><b>Performance Target :</b> Offer compressed MAT 52/MAT 35 course (8 weeks each) in one semester during Fall 2015.</p>	<p><b>Report Submitted:</b> 2014 - 2015 (Spring 2015)  <b>Performance Target Met:</b> In progress  Offering a compressed MAT 52/MAT 35 course (8 weeks each) in one semester with the same instructor is one of the pathways we explored to help students to shorten time to become college-ready in one semester. (05/11/2015)  <b>Related Documents:</b>  <a href="#">compressed math course.docx</a>  <a href="#">Jaggars et al. - 2014 - Three Accelerated Developmental Education Programs.pdf</a>  <a href="#">Update for traditional math pipeline.04.10.15.docx</a></p>	<p><b>Action Plan:</b> Offer compressed MAT 52/MAT 35 course (8 weeks each) in one semester by the same instructor during Fall 2015.  (05/11/2015)</p>
	<p><b>Direct: Institutional Research or Other Data</b> - Designing a new accelerated course which would give students the option of completing Elementary Algebra and Intermediate Algebra in one semester.  <b>Performance Target :</b> Begin the process of creating the COR for this new course by the end of Fall 2015.</p>	<p><b>Report Submitted:</b> 2014 - 2015 (Spring 2015)  <b>Performance Target Met:</b> In progress  Designing a new accelerated course which combines Elementary Algebra and Intermediate Algebra in one course is different from the compressed Mat 52/35 course, although both allow students to shorten their math sequences. Once both formats are offered, it will be a great opportunity to compare their results. (05/11/2015)  <b>Related Documents:</b>  <a href="#">Update for traditional math pipeline.04.10.15.docx</a></p>	<p><b>Action Plan:</b> Work with other Math faculty from RCC and Norco to design the new accelerated course which combines elementary algebra and intermediate algebra in one course in 2015-2016.  (05/11/2015)</p>
<p><b>Update office equipment</b> - Need two office printers: one for Ms. Saxon's</p>	<p>Need two office printers: one for Ms.</p>	<p><b>Report Submitted:</b> 2014 - 2015 (Spring 2015)</p>	<p><b>Action Plan:</b> Purchase two office</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
<p>office and the other for Richards-Dinger 's office.  <b>Objective Status:</b> New  <b>Type:</b> Other types of Objectives</p>	<p>Saxon's office and the other for Ms. Richards-Dinger's office.  <b>Performance Target :</b> Obtaining two printers.</p>	<p><b>Performance Target Met:</b> In progress  Need two printers (04/24/2015)  <b>Related Documents:</b>  <a href="#">HP LJ Pro 400.pdf</a></p>	<p>printers and install in their offices. (05/05/2015)  <b>Action Plan Number:</b> 1  <b>Follow-Up:</b> As of today, we had not received two printers. (10/01/2015)</p>
<p><b>Summary of SLO Assessment for 2015 Four-Year Reports</b> - Status of SLO Assessment  <b>Objective Status:</b> Ongoing  <b>Type:</b> Assessment</p>	<p><b>SLO Assessments</b> - The Math Department at Moreno Valley College has implemented an assessment cycle that assesses every SLO in every course every other year. In addition, we try to assess as many sections as possible. In the years in between complete assessment, there will be an additional assessment of only those SLOs that were not satisfactory in their assessment results. As a department, we are discussing the results of our complete assessment and talking about the SLOs that need improvement.</p> <p>Here is the current assessment cycle/plan:</p> <p>Complete assessment of all SLOs in all courses in as many sections as possible in 2014-2015. Meet and discuss results and strategies for improvement during Spring 2015.</p> <p>Assessment of the SLOs that did not meet the performance requirement in 2015-2016. Meet and discuss results and strategies for improvement during Spring 2016.</p> <p>Complete assessment of all SLOs in</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> Yes  All SLOs in all courses have been assessed. The Philosophy discipline is in charge of assessing PHIL-32 which is cross-listed as MAT-32. (09/24/2015)</p>	<p><b>Action Plan:</b> Math faculty will meet and discuss results of SLO assessment for the 2014-2015 academic year. Those SLOs that did not meet the minimum requirement will be reassessed during the 2015-2016 academic year.</p> <p>Some strategies we plan to implement for improvement on SLOs that were not met are the following:  We will increase the number of sections utilizing SI tutors because Supplemental Instruction has shown to increase success rates.</p> <p>We have posted Math lab information in all math classrooms, and we will keep encouraging math faculty to put information about the Math lab in their course syllabi and announce it to their students at the beginning of each term. (09/24/2015)</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
--	------------------------------------	---	---------------------

all courses in as many sections as possible in 2016-2017. Meet and discuss results and strategies for improvement during Spring 2017.

Assessment of the SLOs that did not meet the performance requirement in 2017-2018. Meet and discuss results and strategies for improvement during Spring 2018.

We have completed the first part of this cycle as all SLOs were assessed in 2014-2015. We also met to discuss results and strategies for improvement.

**Performance Target :** (1) All SLOs have an Assessment Result Date of 2012 or later.

(2) Assessment results are used to improve teaching and learning in your courses and/or programs.

**Related Documents:**

[MathSLOassessmentReport.pdf](#)

**Successful Completion Analysis for 2015 Four-Year Report** - Analysis of data on success (2003-2014)  
**Objective Status:** Ongoing  
**Type:** Data Analysis

**Direct: Institutional Research or Other Data** - Over the past 4 years, the Math Department's success rate has been improving year after year even though our rate has stayed below the College and District numbers. Our average success rate was 48% vs. 70% for the College and 67% for the District.

**Performance Target :** Maintain the success rate above 50%.

**Related Documents:**

[MOV MAT PR Data.docx](#)

[MOV PR Data.docx](#)

**Report Submitted:** 2015 - 2016 (Fall 2015)

**Performance Target Met:** In progress

When contrasting the overall academic success rates at Moreno Valley College and the Riverside Community College District over the past five years, success rates in Mathematics have been strikingly low. While overall achievement at MVC has ranged between 68.2% and 71.6%, and District wide academic achievement has been between 65.8% and 67.8%, the achievement in Mathematics at MVC has resided between 47.1% and 50.8%. Multiple factors contribute to students' under-performance in Mathematics.

Mathematics sequence success rates are even lower than course success rates. Our high efficiency might be a factor in our low success rates. A larger class may mean less one-

**Action Plan:** MVC is hoping to reduce these hurdles by shortening the sequence through accelerated courses and First Year Experience programs for our students. In conjunction with these initiatives, we are collaborating with local high schools to align our curriculum to create seamless placement of high school students. Achieving sustainable success will require strong support from Administration and committed leadership from the faculty.

List Program Objectives or Data	Describe Objectives or Data	Evaluation of Objective and/or Data Analysis	Action Plans
	<a href="#">RCCD PR Data.docx</a>	<p>on-one time with students, which in turn may hinder their success.</p> <p>Inability to complete the sequence of Mathematics classes is one of the largest obstacles to success of our students. The community college has become a crucial retraining ground for working adults, those returning to the work force and high school students hoping to advance to a four-year university. Many of our Mathematics students have been out of high school for many years and have fallen out of pace with the Mathematics sequence. Many returning students who could benefit from some quick brush-up courses for more advanced placement, instead find themselves confronted by an exhaustive and lengthy sequence of courses that become an obstacle to completion and achievement. (09/29/2015)</p> <p><b>Related Documents:</b>  <a href="#">MOV MAT PR Data.docx</a>  <a href="#">MOV PR Data.docx</a>  <a href="#">RCCD PR Data.docx</a></p>	<p>Currently, a majority of Mathematics courses are taught by part-time faculty. We must have flexibility and dedicated resources to devise practical programs that will adequately meet the complex needs of today's community college students. Our inability to fully address our students' needs underscores the need for more full time positions in the discipline of Mathematics. (09/29/2015)</p> <p><b>Action Plan:</b> Increase number of sections utilizing SI tutors because Supplemental Instruction has been shown to increase success rates. (09/29/2015)</p>
<p><b>Retention Analysis for 2015 Four-Year Report</b> - Analysis of data on retention (2003-2014)  <b>Objective Status:</b> Ongoing  <b>Type:</b> Data Analysis</p>	<p><b>Direct: Institutional Research or Other Data</b> - Over the past 5 years, the Math Department's retention rate has stayed below the College and District numbers. Our average retention rate was 78% vs. 87% for the College and 85% for the District.  <b>Performance Target</b> : Maintain the retention rate above 78%.</p> <p><b>Related Documents:</b>  <a href="#">MOV MAT PR Data.docx</a>  <a href="#">MOV PR Data.docx</a>  <a href="#">RCCD PR Data.docx</a></p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> In progress  Over the past 5 years, the Math Department's retention rates were slightly below the College and District numbers. Our retention rates were between 76%-81% vs. 85%-87% for the College and 84%-86% for the District. At MVC, we have many part-time students and others who need to work, which makes it difficult to maintain commitment to their academic pursuits, especially in math courses which require so much time studying and practicing outside of class. Even though the Math Department is facing an uphill challenge, we are determined to improve our retention rate by 2% in next four years. (09/24/2015)</p>	<p><b>Action Plan:</b> Increase number of sections utilizing SI tutors because Supplemental Instruction has been shown to increase retention rates. (09/29/2015)</p> <p><b>Action Plan:</b> The Math Department will continue to offer help to students who need it. Our math lab offers drop-in and appointment tutoring. We have tutors and instructors ready to help from 9am-8pm M-Th and 9am-3pm Friday. (09/27/2015)</p>
<p><b>Enrollment Analysis for 2015 Four-Year Report</b> - Analysis of data on enrollment (2003-2014)  <b>Objective Status:</b> Ongoing</p>	<p><b>Direct: Institutional Research or Other Data</b> - Based on the data in the related documents, we see that Math enrollments have grown by</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> Yes  The Math Department is currently responsible for 15% of MVC's enrollment and 16.8% of MVC's WSCH, while only</p>	<p><b>Action Plan:</b> We will request two additional Math Department hires in the next possible hiring cycle. (09/25/2015)</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
<p><b>Type:</b> Data Analysis</p>	<p>21.6% between 2010 and 2014. During this same time period, MVC and RCCD enrollments have declined by 8.5% and 9% respectively. Due to our drastically increased enrollment, we believe it would benefit the students if we could hire at least two more full time faculty members, in addition to the permanent position that we hired as a one-year temp during Summer 2015. Further analysis of the data supports this assertion. Using the most recent year's data, each math faculty member was responsible for 693.2 weekly contact hours with students, which is 45% more than MVC as a whole (477.7 WSCH/FTEF) and 29% more than RCCD as a whole (538.3 WSCH/FTEF). Similarly, the ratio of enrollment to FTEF in 2014 was 136.7 in the Math Department, which is 29% higher than MVC (105.8) and 14% higher than RCCD (120). More math faculty would provide a much-needed boost to the services and support we are able to offer our students.</p> <p><b>Performance Target :</b> Meet MVC's math enrollment needs.</p> <p><b>Related Documents:</b>  <a href="#">MOV MAT PR Data.docx</a>  <a href="#">MOV PR Data.docx</a>  <a href="#">RCCD PR Data.docx</a></p>	<p>making up 11.6% of MVC's FTEF. (09/25/2015)</p>	
<p><b>Efficiency Analysis for 2015 Four-Year Report</b> - Analysis of data on efficiency (2010-2014)  <b>Objective Status:</b> Ongoing  <b>Type:</b> Data Analysis</p>	<p><b>Direct: Institutional Research or Other Data</b> - Over the past 5 years, the Math Department's efficiency has stayed consistently and</p>	<p><b>Report Submitted:</b> 2015 - 2016 (Fall 2015)  <b>Performance Target Met:</b> Yes  The Math Department is contributing significantly to the efficiency of Moreno Valley College. (09/24/2015)</p>	<p><b>Action Plan:</b> The Math Department will maintain our efficiency about 525. (09/24/2015)</p>

<i>List Program Objectives or Data</i>	<i>Describe Objectives or Data</i>	<i>Evaluation of Objective and/or Data Analysis</i>	<i>Action Plans</i>
--	------------------------------------	---	---------------------

drastically above the College and District numbers. Our average efficiency was 700 vs. 486 for the College and 549 for the District.  
**Performance Target :** The State target for efficiency is 525. The department's efficiency is much higher than the State benchmark.

**Related Documents:**

[MOV MAT PR Data.docx](#)

[MOV PR Data.docx](#)

[RCCD PR Data.docx](#)

# IPR - Report on CORs and Course Offering/Rotation with Notes and SLO Status

Course ID	Course Name	SLO Status	Official date of COR in CurricUNET	COR Notes	Course Offering and Rotation Plan
MAT-10	Precalculus	Active	06/17/2014		Math 10 is being offered every term.
MAT-10	Precalculus	Inactive/Historical	09/01/2006		Math 10 is being offered every term.
MAT-11	College Algebra	Active	04/15/2014		Math 11 is being offered every term.
MAT-11	College Algebra	Inactive/Historical	04/15/2014		Math 11 is being offered every term.
MAT-12	Statistics	Active	11/19/2013		Math 12 is being offered every term.
MAT-1A	Calculus I	Active	04/07/2015		Math 1A is being offered every fall and spring term.
MAT-1A	Calculus I	Inactive/Historical	04/07/2015		Math 1A is being offered every fall and spring term.
MAT-1B	Calculus II	Active	04/16/2013		Math 1B is being offered every fall and spring term.
MAT-1C	Calculus III	Active	06/18/2013		Math 1C is being offered every fall term.
MAT-2	Differential Equations	Active	11/19/2013		Math 2 is being offered every spring term.
MAT-3	Linear Algebra	Active	04/16/2013		Math 3 is being offered every spring term.
MAT-35	Intermediate Algebra	Active	11/19/2013		Math 35 is being offered every term.
MAT-36	Trigonometry	Active	11/21/2014		Math 36 is being offered every term.
MAT-37	Algebra for Statistics	Active	01/24/2012		Math 37 is being offered every fall and spring term.
MAT-52	Elementary Algebra	Active	04/19/2011		Math 52 is being offered every term.
MAT-53	College Geometry	Active	12/01/2006		Math 53 is being offered every term.
MAT-53	College Geometry	Inactive/New	04/21/2015		Math 53 is being offer every term.
MAT-65	Arithmetic & Pre-Algebra	Active	04/17/2012		Math 65 is being offered every term.
MAT-90A	Whole Numbers, Intro Fractions	Active	04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
MAT-90B	Fractions, Intro Decimals	Active	04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
MAT-90C	Decimals	Active	04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
MAT-90D	Rational Nos , Intro Variables		04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
MAT-90D	Rational Nos , Intro Variables	Active	04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
MAT-90E	Real Numbers, Intro Algebra	Active	04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
MAT-90F	Algebraic Expressions	Active	04/17/2012		Math Dept. is currently evaluating the relevancy of the Math 90 courses, and decide whether to offer or discontinue the sequence.
PR-MAT	Program Review - Math				

## IPR - Report on Assessment with SLO Status

Course ID	Course Name	SLO Name	SLO Status	Assessment Result Date
MAT-10	Precalculus	Inactive SLO 2	Inactive/Historical	09/11/2014
		SLO 1	Active	02/10/2015
		SLO 10	Active	02/10/2015
		SLO 11	Active	02/10/2015
		SLO 12	Active	02/10/2015
		SLO 13	Active	02/10/2015
		SLO 2	Active	02/10/2015
		SLO 3	Active	02/10/2015
		SLO 4	Active	02/10/2015
		SLO 5	Active	02/10/2015
		SLO 6	Active	02/10/2015
		SLO 7	Active	02/10/2015
		SLO 8	Active	02/10/2015
		SLO 9	Active	02/10/2015
MAT-11	College Algebra	Inactive SLO 6	Inactive/Historical	06/03/2014
		Inactive SLO 6	Inactive/Historical	09/08/2014
		Inactive SLO 6	Inactive/Historical	09/16/2015
		SLO 1	Active	02/23/2015
		SLO 2	Active	02/23/2015
		SLO 3	Active	02/23/2015
		SLO 4	Active	02/23/2015
		SLO 5	Active	02/23/2015
MAT-12	Statistics	SLO 6	Active	02/23/2015
		SLO 7	Active	02/23/2015
		SLO 1	Active	08/27/2015
		SLO 10	Active	08/27/2015
		SLO 11	Active	08/27/2015
		SLO 12	Active	08/27/2015
		SLO 13	Active	08/27/2015
		SLO 14	Active	08/27/2015
		SLO 15	Active	08/27/2015
		SLO 2	Active	08/27/2015
		SLO 3	Active	08/27/2015



Course ID	Course Name	SLO Name	SLO Status	Assessment Result Date
		SLO 4	Active	08/27/2015
		SLO 5	Active	08/27/2015
		SLO 6	Active	08/27/2015
		SLO 7	Active	08/27/2015
		SLO 8	Active	08/27/2015
		SLO 9	Active	08/27/2015
MAT-1A	Calculus I	SLO 1	Active	02/07/2015
		SLO 10	Active	02/07/2015
		SLO 11	Active	02/07/2015
		SLO 12 (inactive)	Inactive/Historical	
		SLO 13 (inactive)	Inactive/Historical	
		SLO 14 (inactive)	Inactive/Historical	
		SLO 2	Active	02/07/2015
		SLO 3	Active	02/07/2015
		SLO 4	Active	09/08/2014
		SLO 4	Active	02/07/2015
		SLO 5	Active	02/07/2015
		SLO 6	Active	02/07/2015
		SLO 7	Active	02/07/2015
		SLO 8	Active	02/07/2015
		SLO 9	Active	02/07/2015
MAT-1B	Calculus II	SLO 1	Active	01/29/2015
		SLO 2	Active	01/30/2015
		SLO 3	Active	01/30/2015
		SLO 4	Active	08/21/2014
		SLO 5	Active	01/30/2015
MAT-1C	Calculus III	SLO 1	Active	02/21/2015
		SLO 10	Active	02/21/2015
		SLO 11	Active	02/21/2015
		SLO 12	Active	02/21/2015
		SLO 2	Active	02/21/2015
		SLO 3	Active	02/21/2015
		SLO 4	Active	02/21/2015
		SLO 5	Active	02/21/2015
		SLO 6	Active	02/21/2015

Course ID	Course Name	SLO Name	SLO Status	Assessment Result Date
MAT-2	Differential Equations	SLO 7	Active	02/21/2015
		SLO 8	Active	02/21/2015
		SLO 9	Active	02/21/2015
		SLO 1	Active	09/16/2015
		SLO 2	Active	09/16/2015
		SLO 3	Active	09/16/2015
		SLO 4	Active	09/16/2015
MAT-3	Linear Algebra	SLO 5	Active	08/29/2014
		SLO 6	Active	08/29/2014
		SLO 7	Active	08/29/2014
		SLO 1	Active	08/15/2015
		SLO 2	Active	08/15/2015
		SLO 3	Active	08/15/2015
		SLO 4	Active	06/30/2014
MAT-35	Intermediate Algebra	SLO 4	Active	08/15/2015
		SLO 5	Active	08/15/2015
		SLO 6	Active	08/15/2015
		SLO 7	Active	08/15/2015
		SLO 1	Active	02/24/2015
		SLO 2	Active	08/21/2014
		SLO 2	Active	08/30/2014
MAT-36	Trigonometry	SLO 2	Active	09/07/2014
		SLO 3	Active	02/24/2015
		SLO 4	Active	02/24/2015
		SLO 5	Active	02/24/2015
		SLO 6	Active	02/24/2015
		SLO 1	Active	01/29/2015
		SLO 10	Active	01/29/2015
SLO 11	Active	01/29/2015		
SLO 2	Active	01/29/2015		
SLO 3	Active	01/29/2015		
SLO 4	Active	01/29/2015		
SLO 5	Active	01/29/2015		
SLO 6	Active	01/29/2015		
SLO 7	Active	01/29/2015		

Course ID	Course Name	SLO Name	SLO Status	Assessment Result Date
MAT-37	Algebra for Statistics	SLO 8	Active	01/29/2015
		SLO 9	Active	01/29/2015
		SLO 1	Active	09/25/2015
		SLO 2	Active	09/25/2015
		SLO 3	Active	09/25/2015
		SLO 4	Active	09/25/2015
MAT-52	Elementary Algebra	SLO 5	Active	09/16/2014
		SLO 1	Active	02/18/2015
		SLO 2	Active	01/18/2014
		SLO 2	Active	02/18/2015
		SLO 3	Active	02/18/2015
		SLO 4	Active	02/18/2015
		SLO 5	Active	02/18/2015
		SLO 6	Active	02/18/2015
MAT-53	College Geometry	SLO 7	Active	02/18/2015
		SLO 1	Active	01/27/2015
		SLO 1 New	Inactive/New	
		SLO 2	Active	01/27/2015
		SLO 2 New	Inactive/New	
		SLO 3	Active	01/27/2015
		SLO 3 New	Inactive/New	
		SLO 4	Active	01/27/2015
		SLO 4 New	Inactive/New	
		SLO 5 New	Inactive/New	
MAT-65	Arithmetic & Pre-Algebra	SLO 6 New	Inactive/New	
		SLO 7 New	Inactive/New	
		SLO 1	Active	02/21/2015
		SLO 2	Active	02/21/2015
		SLO 3	Active	02/21/2015
		SLO 4	Active	09/15/2014
		SLO 4	Active	02/21/2015
		SLO 5	Active	02/21/2015
		SLO 6	Active	02/21/2015
		SLO 7	Active	02/21/2015
SLO 8	Active	02/21/2015		

Course ID	Course Name	SLO Name	SLO Status	Assessment Result Date
MAT-90A	Whole Numbers, Intro Fractions	SLO 1	Active	09/12/2014
		SLO 2	Active	09/12/2014
		SLO 3	Active	09/12/2014
		SLO 4	Active	09/12/2014
		SLO 5	Active	09/12/2014
		SLO 6	Active	09/12/2014
		SLO 7	Active	09/12/2014
MAT-90B	Fractions, Intro Decimals	SLO 1	Active	09/14/2014
		SLO 2	Active	09/14/2014
		SLO 3	Active	09/14/2014
		SLO 4	Active	09/14/2014
		SLO 5	Active	09/14/2014
		SLO 6	Active	09/14/2014
		SLO 7	Active	09/14/2014
		SLO 8	Active	09/14/2014
MAT-90C	Decimals	SLO 1	Active	09/14/2014
		SLO 2	Active	09/14/2014
		SLO 3	Active	09/14/2014
		SLO 4	Active	09/14/2014
		SLO 5	Active	09/14/2014
		SLO 6	Active	09/14/2014
		SLO 7	Active	09/14/2014
		SLO 8	Active	09/14/2014
MAT-90D	Rational Nos , Intro Variables	SLO 1	Active	09/14/2014
		SLO 2	Active	09/14/2014
		SLO 3	Active	09/14/2014
		SLO 4	Active	09/14/2014
		SLO 5	Active	09/14/2014
		SLO 6		09/14/2014
MAT-90E	Real Numbers, Intro Algebra	SLO 1	Active	03/31/2015
		SLO 2	Active	03/31/2015
		SLO 3	Active	03/31/2015
		SLO 4	Active	03/31/2015
		SLO 5	Active	03/31/2015
		SLO 6	Active	03/31/2015

Course ID	Course Name	SLO Name	SLO Status	Assessment Result Date
		SLO 7	Active	03/31/2015
MAT-90F	Algebraic Expressions	SLO 1	Active	09/14/2014
		SLO 2	Active	09/14/2014
		SLO 3	Active	09/14/2014
		SLO 4	Active	09/14/2014
		SLO 5	Active	09/14/2014
		SLO 6	Active	09/14/2014
		SLO 7	Active	09/14/2014
PR-MAT	Program Review - Math	SLO 1		