



2017-2018
Annual Program Review

Mathematics

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Section 1: Program Planning:

Internal Analysis

ENROLLMENT AND FTES:

The number of enrollments in Mathematics courses in 2015-2016 showed **a substantial increase ($\geq 10.0\%$)** from 2014-2015 and **a substantial increase ($\geq 10.0\%$)** in comparison with the number of enrollments in 2013-2014.

The FTES in Mathematics credit courses in 2015-2016 showed **a substantial increase ($\geq 10.0\%$)** from 2014-2015 and **a substantial increase ($\geq 10.0\%$)** in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Mathematics courses in 2015-2016 showed **a substantial increase ($\geq 10.0\%$)** from 2014-2015 and **a substantial increase ($\geq 10.0\%$)** in comparison with the number of sections in 2013-2014.

The fill rate in Mathematics courses in 2015-2016 showed **a moderate decrease (-5.0% to -9.9%)** from 2014-2015 and **a moderate decrease (-5.0% to -9.9%)** in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Mathematics courses in 2015-2016 showed **a substantial increase ($\geq 10.0\%$)** from 2014-2015 and **a substantial increase ($\geq 10.0\%$)** in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Mathematics courses in 2015-2016 showed **a substantial decrease ($\geq -10.0\%$)** from 2014-2015 and **a slight decrease (-1.0% to -4.9%)** in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Mathematics courses in 2015-2016 showed **minimal to no difference** from 2014-2015 and **a moderate increase (5.0% to 9.9%)** in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed **a moderately lower rate (-5.0% to -9.9%)** than the college success average* (**66.6%**) and showed **a slightly higher rate (1.0% to 4.9%)** than the institutional-set standard* (**56.6%**) for credit course success.

TERM RETENTION RATE:

The term retention rate in Mathematics courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a slight increase (1.0% to 4.9%)** in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed **a moderately lower rate (-5.0% to -9.9%)** than the college retention average* (**83.3%**) and showed **a moderately higher rate (5.0% to 9.9%)** than the institutional-set standard* term retention (**70.8%**) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Mathematics in 2015-2016 showed **minimal to no difference** from 2014-2015 and showed **a substantial increase ($\geq 10.0\%$)** in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Mathematics in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 **less than a quarter (1% to 24%)** of the **Mathematics** courses were offered as **cable** courses, while **none (0%)** of the courses were offered in **correspondence**, **less than a quarter (1% to 24%)** of the courses offered were **hybrid**, **more than half (50% to 74%)** of the courses offered were **online**, **none (0%)** of the courses offered were **self-paced**, **none (0%)** of the courses offered were **telecourse**, and **less than a quarter (1% to 24%)** of the courses were offered in **traditional in-person** setting.

GENDER

In 2015-16, there **was NOT a disproportional impact** in **Mathematics** course success rates for *female students*; and there **was NOT a disproportional impact** in **Mathematics** course success rates for *male students*.

AGE GROUPS

In 2015-2016 there **was NOT a disproportional impact** in **Mathematics** course success rates for students *less than 20 years old*; there **was NOT a disproportional impact** in **Mathematics** course success rates for students *20 to 24 years old*; there **was NOT a disproportional impact** in **Mathematics** course success rates for students *25 to 29 years old*; there **was NOT a disproportional impact** in **Mathematics** course success rates for students *30 to 34 years old*; there **was NOT a disproportional impact** in **Mathematics** course success rates for students *35 to 39 years old*; there **was NOT a disproportional impact** in **Mathematics** course success rates for students *40 to 49 years old*; there **was NOT a disproportional impact** in **Mathematics** course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there **was a disproportional impact** in **Mathematics** course success rates for *African American* students; there **was NOT a disproportional impact** in **Mathematics** course success rates for *American Indian* students; there **was NOT a disproportional impact** in **Mathematics** course success rates for *Asian/Pacific Islander* students; there **was NOT a disproportional impact** in **Mathematics** course success rates for *Hispanic/Latino* students; there **was NOT a disproportional impact** in **Mathematics** course success rates for *White/Non-Hispanic* students; there **was NOT a disproportional impact** in **Mathematics** course success rates for *Multi-race* students; there **was NOT a disproportional impact** in **Mathematics** course success rates for students who have *declined to state their race/ethnic identity*.

Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.

Implications of Change

The focus on efficiency and creating a more meaningful schedule and hiring another full-time faculty is reflective in the growth in the program's enrollment and FTES. Additionally, the acceleration of the remedial level courses has prompted an increase in enrollment and student completion of the remedial sequence as reflected in the CCCC scorecard from 22.9% to 33.7%.

It is anticipated that with the introduction of the statistics pathway, advancement of course room technology, and utilization of OER materials will increase success and retention in math courses.

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	3,987	4,963	5,575
FTEs	485.0	607.0	681.7
FTEF30	14.9	17.4	21.8
WSCH/FTEF	535	573	513
Sections	107.0	124.0	157.5
Fill Rate	78.4%	80.0%	73.1%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	3
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	3,984	4,901	5,563
GENDER			
Female	57.1%	54.8%	51.0%
Male	41.5%	43.5%	47.3%
Unknown	1.4%	1.7%	1.6%
AGE at TERM			
Less than 19	12.6%	11.5%	13.4%
20 to 24	30.8%	31.3%	28.9%
25 to 29	17.6%	18.5%	18.1%
30 to 34	11.8%	11.8%	12.2%
35 to 39	6.3%	7.0%	7.7%
40 to 49	11.4%	10.6%	10.4%
50 and Older	9.4%	9.2%	9.4%
RACE/ETHNICITY			
African American	5.1%	5.3%	6.2%
American Indian	0.5%	0.3%	0.5%
Asian/Pacific Islander	30.7%	28.5%	24.2%
Hispanic/Latino	22.6%	24.7%	27.4%
2 or More Race	4.1%	4.1%	4.6%
White	33.7%	35.4%	35.4%
Unknown	3.2%	1.7%	1.9%
INSTRUCTIONAL MODALITY			
Cable	11.1%	12.0%	14.8%
Correspondence	0.0%	0.0%	0.0%
Hybrid	0.0%	0.0%	1.2%
Online	73.0%	76.3%	72.7%
Self-Paced	0.0%	0.0%	0.0%
Telecourse	0.0%	0.0%	0.0%
Traditional	15.9%	11.7%	11.3%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	56.0%	59.1%	59.0%
Course Retention (A-F, P, NP)	74.3%	78.2%	76.8%

* Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	3,981	4,899	5,555
-Overall Success Rate	56.1%	60.0%	59.0%
-Overall Retention Rate	74.4%	78.4%	76.8%

STUDENT DEMOGRAPHICS			
GENDER			
Female	2,271	2,685	2,833
Male	1,654	2,133	2,632
Unknown	56	81	90

Success Rate			
- Female	56.9%	60.2%	57.6%
- Male	55.1%	59.9%	60.3%
- Unknown	55.4%	58.0%	61.1%

Retention Rate			
- Female	74.6%	78.7%	76.5%
- Male	74.1%	77.7%	77.1%
- Unknown	71.4%	82.7%	81.1%

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	3,981	4,899	5,555
-Overall Success Rate	56.1%	60.0%	59.0%
-Overall Retention Rate	74.4%	78.4%	76.8%

AGE at TERM			
Less than 19	502	565	743
20 to 24	1,226	1,533	1,603
25 to 29	703	908	1,005
30 to 34	471	577	678
35 to 39	252	343	430
40 to 49	454	521	573
50 and Older	373	452	523

Success Rate			
Less than 19	55.8%	62.8%	62.3%
20 to 24	56.6%	57.9%	54.3%
25 to 29	52.2%	57.9%	58.0%
30 to 34	56.7%	59.8%	58.7%
35 to 39	59.9%	58.0%	61.9%
40 to 49	54.2%	61.0%	61.4%
50 and Older	61.4%	68.8%	65.6%

Retention Rate			
Less than 19	76.1%	80.9%	82.9%
20 to 24	76.3%	79.0%	74.9%
25 to 29	73.1%	76.2%	75.2%
30 to 34	69.6%	77.8%	76.7%
35 to 39	77.0%	74.9%	76.0%
40 to 49	69.8%	75.6%	76.4%
50 and Older	78.0%	83.8%	78.8%

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	3,981	4,899	5,555
-Overall Success Rate	56.1%	60.0%	59.0%
-Overall Retention Rate	74.4%	78.4%	76.8%

RACE/ETHNICITY			
African American	903	1,209	1,523
American Indian	1,226	1,395	1,346
Asian	204	267	343
Hispanic/Latino	165	200	256
Pacific Islander	118	76	89
White	1,344	1,737	1,969
Unknown	21	15	29

Success Rate

African American	45.6%	51.4%	51.1%
American Indian	67.9%	70.8%	69.7%
Asian	38.2%	47.9%	45.2%
Hispanic/Latino	50.3%	54.0%	55.1%
Pacific Islander	55.1%	56.6%	64.0%
White	56.0%	60.2%	60.4%
Unknown	47.6%	46.7%	55.2%

Retention Rate

African American	67.4%	73.6%	73.1%
American Indian	82.5%	84.3%	81.4%
Asian	66.7%	71.5%	73.8%
Hispanic/Latino	70.3%	75.0%	75.4%
Pacific Islander	75.4%	71.1%	77.5%
White	73.3%	78.8%	77.3%
Unknown	71.4%	66.7%	75.9%

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	3,981	4,899	5,555
-Overall Success Rate	56.1%	60.0%	59.0%
-Overall Retention Rate	74.4%	78.4%	76.8%

INSTRUCTIONAL MODALITY			
Cable	443	588	824
Correspondence			
Hybrid			69
Online	2,904	3,736	4,036
Self-Paced			
Telecourse			
Traditional	634	575	626

<u>Success Rate</u>			
Cable	47.6%	61.6%	64.0%
Correspondence			
Hybrid			58.0%
Online	55.5%	58.7%	57.4%
Self-Paced			
Telecourse			
Traditional	64.7%	67.1%	62.5%

<u>Retention Rate</u>			
Cable	69.1%	79.9%	79.1%
Correspondence			
Hybrid			75.4%
Online	73.6%	77.0%	75.3%
Self-Paced			
Telecourse			
Traditional	81.9%	85.7%	84.0%

Student (SLOs) and Program Student Learning Outcome (PSLOs)

SLO data is being collected in spring 2017 due to the transition in Canvas. Math C100 and Math C280 are being assessed utilizing from the midterm and final exam. The results will be discussed at the fall 2017 all-college meeting. The faculty will explore creating universal assessment for SLOs during the upcoming year.

Curriculum Review

Table Curriculum Review

Course	Date Reviewed	Status
Math C046	Fall 2016	Approved
Math C146	Fall 2016	Approved

Two courses were approved in fall 2016 to support the statistics pathway and are being offered in spring 2017.

Progress on Initiative(s)

Table Progress on Forward Strategy Initiatives

Initiative(s)	Status	Progress Status Description	Outcome(s)
Hire two full-time math instructors due to the top ranking of FTEs, 14.8, in the entire college and 147 LHEs taught by adjunct instructors.	Completed	2015-2016 a new math faculty was hired and a second was hired in 2016-2017	The college was able to offer more math courses. There has been an increase in courses offered.
Establish Math Academy or Bridge Program in summer and winter sessions to prepare students before classes start; and to increase the math success and retention rate, especially for STAR and STAR2 programs.	Completed	In summer 2015, a math boot camp was held at NBC to help incoming students. In 2016-17, the program is still running well.	The results were that students placed into higher math courses. However, the labs need to be longer to cover more material.
Create "Pathway" curriculum to help students succeed in college level math courses at a faster pace.	Completed	The math faculty created Coastline pathways and has approved it and is waiting for state approval.	Offering courses fall 2017
Acquire a mobile "smart cart" with laptops, printer and wifi at Newport Beach Center for math classrooms.	Completed	All smartboards have been installed and a smartcart was purchased	Courses in spring 2017 started using the smartcart
Develop a system to mentor and evaluate new math instructors, especially online.	Completed	Discussions at all college meetings have occurred around that evaluation of math instructors. There is now an onboarding and mentoring process for new math faculty	There has been an increase in higher quality courses. The faculty to develop master courses
Create a dedicated Math Lab for math students. In the student survey, one of	Not started		N/A

the suggestions for the Student Success Center tutoring was to have a quiet place to study. Currently, the Center has English and other subjects' tutoring in the same room.			
Math tutors shall be recommended by math instructors or interviewed by a math instructor prior to hiring.	In-progress	Discussion have occurred with Student Success faculty	N/A
Develop and plan a system of an efficient online tutoring; improve online embedded tutoring services; provide a coordinator for this effort; implement a system that allows the Student Success Center to track individual student assistance and sends that information to each instructor as well as sending student success center use by math students to the department.	Completed	In spring 2015 a math coordinator was assigned	Though there was direction given from the coordinator, there need to be a better planning to effectively use the support services.
Discuss implementation of a STEM or STEAM Program and provide appropriate permanent office space for full-time faculty at the Newport Beach Center.	Completed	6 offices were opened spring 2017	Faculty are using the offices.
Provide more technology training programs for math faculty.	Completed	2014-2015 PIEAC and budget allocated professional development funds to explore new trainings. In 2015-2016 the instructors attended annual national conferences. In 2016-17 the faculty attended three conferences	The instructor learned of newer technology and strategies in their courses for flipping courses
Participate with the college bookstore and the textbook publishing companies to help lower the cost of textbooks to students, and to more clearly outline all the options available to students for instructional materials; investigate free or low-cost online educational resources to help lower the cost of textbooks to students.	Completed	In spring 2015 the math faculty met at the All-College Meeting in a breakout discipline focused session where discussion occurred around the textbook. In 2015-2016 the faculty have been reviewing OER textbooks. The program invested in OER in 2016-17.	Faculty are in courses using OER which has reflected in higher retention and success.
Equip classrooms where math is taught with furniture and equipment that promote active leaning, such as mobile chairs with laptops and individual student whiteboards.	In-progress	The college purchased student whiteboards and there is a 2015-2016 request going to budget for approval. In 2016-17 it was requested but not funded	N/A

Modify the math placement system to include a student's recent performance in math classes that do not transfer (such as high school students).	In-progress	Multiple measures have been piloted in summer 2015 and are awaiting courses performance results in fall 2015. Multiple measures are getting approved at Academic Senate for implementation in summer 2017.	N/A
Increase program effectiveness and continue to grow and meet student demand for math courses.	In-progress	The hiring of FT and PT is in process	N/A

Program Planning and Communication Strategies

The program meets twice a term to discuss the SLOs with all of the full-time and part-time faculty. Every other week (Thursday) there is a lunch meeting to discuss the program, innovative practices, problem solving and general operations.

Section 2: Human Capital Planning

Staffing

Table 2.1 Staffing Plan

Year	Administrator	Management	F/T Faculty	P/T Faculty	Classified	Hourly
Previous year 2016-17	Dean of NBC	-	5	31	-	-
Current year 2017-18	Dean of NBC	-	5	34	-	-
1 year 2018-19	Dean of NBC	-	6	34	-	-
2 years 2019-2020	Dean of NBC	-	6	36	-	-
3 years 2020-2021	Dean of NBC	-	7	36	-	-

In 2015-2016 a new full-time faculty member was hired and started in fall 2016. It is anticipated that there will be growth in the part-time pool in two to three years and the growth in college enrollments and pathways supports the need for new full-time positions in 2018-19 and 2020-2021.

Professional Development

Table 2.2 Professional Development

Name (Title)	Professional Development	Outcome
L. Lee, S. Nguyen, F. Feldon	AMATYC conference	Learned about new technology, teaching methods and strategies, and pedagogy.
L. Lee, C. Tran, F. Feldon, M. Alves	CMC ³	Learned about new interactive technologies and software.
L. Lee, C. Tran	OER Conference	Learned out open resource call My Open Math (MOM), it was implemented and being used by the program faculty

In 2016-2017 full-time and part-time faculty members were able to participate in national conferences focused on creating innovative and interactive materials and course experiences. To support the College's plans to increase student academic performance and alleviate access barriers, it would be essential to continue to send math faculty to more professional learning opportunities. To follow this plan, the faculty are interested in participating in the national math pathway workshop.

Section 3: Facilities Planning

Facility Assessment

Currently, math is taught at all college learning centers, Early College High School, online and in the telecourse modality. Based on a request in 2015-16, in spring 2017, an office suite was developed for the full-time faculty at the Newport Beach Center. An ongoing request since 2014-15 is to invest in mobile classroom furniture to promote an active learning environment.

Section 4: Technology Planning

Technology Assessment

Based on a request in 2015-16, in fall 2016, the college purchased and installed laptops and a storage cart at the Newport Beach Center. Through the utilization of Bond Measure M funds, all the learning centers have been updated with smartboard technology to support a more innovative learning environment.

Section 5: Initiative(s)

Initiative: Increase program effectiveness and continue to grow and meet student demand for math courses.

Describe how the initiative supports the college mission:

Help continue the sustainability of the program and support student success through the development and support of innovative math courses, programs, and pathways.

What college goal does the initiative support? Select one

X Student Success, Completion, and Achievement

X Instructional and Programmatic Excellence

Access and Student Support

X Student Retention and Persistence

Culture of Evidence, Planning, Innovation, and Change

Partnerships and Community Engagement

Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply

X Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.

Provide universal access to student service and support programs.

Strengthen post-Coastline outcomes (e.g., transfer, job placement).

X Explore and enter new fields of study (e.g., new programs, bachelor's degrees).

Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.

Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).

Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply

Learning Outcome (SLO/PSLO) assessment

X Internal Research (Student achievement, program performance)

External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.

Internal research shows that math is an integral part of student pathways to degrees and transfer. Additionally, data shows a major increase in math enrollment. However, with a focus to increase quality, expand programs/ degrees and student success, it essential that this position be hired to help meet that need.

Recommended resource(s) needed for initiative achievement:

FT math faculty member

What is the anticipated outcome of completing the initiative?

Increased success and retention in math courses.

Provide a timeline and timeframe from initiative inception to completion.

Present at Academic Senate in fall 2017, hire in spring 2018 and have the position start in fall 2018

Initiative: Equip classrooms where math is taught with furniture and equipment that promote active learning, such as mobile chairs with laptops and individual student whiteboards.

Describe how the initiative supports the college mission:

This promotes advancement of innovative learning environments that promote student success.

What college goal does the initiative support? Select one

X Student Success, Completion, and Achievement

X Instructional and Programmatic Excellence

Access and Student Support

X Student Retention and Persistence

X Culture of Evidence, Planning, Innovation, and Change

Partnerships and Community Engagement

Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply

X Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.

Provide universal access to student service and support programs.

Strengthen post-Coastline outcomes (e.g., transfer, job placement).

Explore and enter new fields of study (e.g., new programs, bachelor's degrees).

Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.

Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).

Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply

Learning Outcome (SLO/PSLO) assessment

Internal Research (Student achievement, program performance)

X External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.

External research shows that creating active learning environment drives student engagement and academic performance.

Recommended resource(s) needed for initiative achievement:

30 mobile desks

What is the anticipated outcome of completing the initiative?

Increased success and retention in math courses.

Provide a timeline and timeframe from initiative inception to completion.

Purchase in summer 2018 and install in fall 2018

Section 6: Prioritization

List and prioritize resource requests that emerge from the initiatives.

Initiative	Resource(s)	Est. Cost	Funding Type	Health, Safety Compliance	Evidence	College Goal	To be Completed by	Priority
Increase program effectiveness and continue to grow and meet student demand for math courses.	F/T Math faculty	100,000	Ongoing	No	Internal	3 goals	2018	1
Equip classrooms where math is taught with furniture and equipment that promote active learning, such as mobile chairs with laptops and individual student whiteboard	Mobile Desks	TBA	One-time	No	External	3 goals	2018	2

Prioritization Glossary

Initiative:	Provide a short description of the plan
Resource(s):	Describe the resource(s) needed to support the completion of the initiative
Est. Cost:	Estimated financial cost of the resource(s)
Funding Type:	Specify if the resource request is one-time or ongoing
Health, Safety Compliance:	Specify if the request relates to health or safety compliance issue(s)
Evidence:	Specify what data type(s) supported the initiative (Internal research, external research, or learning outcomes)
College Goal:	Specify what College goal the initiative aligns with
To be completed by:	Specify year of anticipated completion
Priority:	Specify a numerical rank to the initiative

Data Glossary

Enrolled (Census): The official enrollment count based on attendance at the census point of the course.

FTES: Total full-time equivalent students (FTES) based on enrollment of resident and non-resident students. Calculations based on census enrollment or number of hours attended based on the type of Attendance Accounting Method assigned to a section.

FTEF30: A measure of productivity that measures the number of **full-time faculty** loaded for the entire year at 30 Lecture Hour Equivalents (15 LHEs per fall and spring terms). This measure provides an estimate of full-time positions required to teach the instruction load for the subject for the academic year.

WSCH/FTEF (595): A measure of productivity that measures the weekly student contact hours compared to full-time equivalent faculty. When calculated for a 16 week schedule, the productivity benchmark is 595. When calculated for an 18 week schedule, the benchmark is 525.

Success Rate: The number of passing grades (A, B, C, P) compared to all valid grades awarded.

Retention Rate: The number of retention grades (A, B, C, P, D, F, NP, I*) compared to all valid grades awarded.

Fall-to-Spring Persistence: The number of students who completed the course in the fall term and re-enrolled (persisted) in the same subject the subsequent spring semester.

F2S Percent: The number of students who completed a course in the fall term and re-enrolled in the same subject the subsequent spring semester divided by the total number of students enrolled in the fall in the subject.