Annual Program Of Developmental Math For

2019-2020

Prepared by

Allen Shockley

Thursday, December 10, 2020

Independence COMMUNITY COLLEGE

Table of Contents

1.0 Program Data and Resource Repository

1.2 Quantitative and Qualitative Data

All programs are provided with the most recent two years of data by the Office of Institutional Research (IR) as well as two-year budget data provided by the Business Office.

The data sets provided by the Office of Institutional Research include the following elements for the most recent two (completed) academic years:

- Number of Faculty (Full Time; Part Time; Total)
- Student Credit Hours by Faculty Type
- Enrollment by Faculty Type
- Faculty Name by Type
- Average Class Size, Completion, and Attrition
- Course Completion, Success and Attrition by Distance Learning v Face-to-Face
- Number of Degrees/Certificates Awarded
- Number of Graduates Transferring (if available from IR)
- Number of Graduates Working in Related Field (technical programs only)
- Expenditures and Revenues

Additional data may also be available for reporting from the Office of Institutional Research, as applicable. Requests for additional data must be made through a data request.

(See Section 1.2 in the Program Review Handbook for more information.)

Narrative:

DEV Math Program Review Data AY 2020

Number of Faculty:

2 full time (Shockley, Southworth)

2 part time (Hays, Stadler)

Enrollment & Student credit hours by Faculty type:

Full time: 52 total credit hours taught, with 191 total students enrolled

Part time: 8 credit hours taught, 31 total students enrolled

Average Class size:

15.1 students in Face-to-Face classes

11 students in online classes

14.8 students across all courses

Completion rates:

86.3% face-to-face

100% online

86.9% all courses

Pass ('D' or better) rates:
73.1% face-to-face
81.8% online
73.6% all courses
Pass ('C' or better) rates:
59.3% face-to-face
63.6% online
59.6% all courses

% of AY2020 Students Passing Intermediate ('C' or better):
Summer: 86.7% (26 of 30)
Fall: 40.4% (19 of 47)
Spring: 57.1% (24 of 42)
Total: 58.0% (69 of 119)
% of AY2020 Students Who Passed (with 'C') Intermediate Who Completed College Algebra as of mid-session Fall 2020:
Summer: 61.5% (16 of 26)
Fall: 57.9% (11 of 19)
Spring: 0% (0 of 24)
Total: 39.1% (27 of 69)
% of AY2020 Students Who Passed (with 'C') Intermediate & Completed College Algebra Who Passed (with 'C') College Algebra as of mid-session Fall 2020:
Summer: 68.8% (11 of 16)
Fall: 90.9% (10 of 11)
Spring: % ()
Total: 77.8% (21 of 27)
% of AY2020 Students Who Completed Any Dev Math Course & Completed College Algebra Who Passed (with 'C') College Algebra as of mid-session Fall 2020:
Summer: 60.0% (12 of 20)
Fall: 69.6% (16 of 23)
Spring: 0% (0 of 1)
Total: 63.6% (28 of 44)
% of AY2020 Students Who Completed Any Dev Math Course BUT Did Not Pass Intermediate Algebra & Completed College Algebra Who Passed College Algebra as of mid-session Fall 2020:
Summer: 50% (1 of 2)
Fall: 54.5% (6 of 11)
Spring: 0% (0 of 0)
Total: 53.8% (7 of 13)

% of AY2020 Students Who Completed & Passed College Algebra Who Hadn't Taken Any Dev Math Course in the Last 2 Academic Years
Summer: 80% (8 of 10)
Fall: 88.5% (100 of 113) without HS: 79.3% (23 of 29)
Spring: 82.8% (77 of 93) without HS: 76.9% (35 of 46)
Total: 85.6% (185 of 216) without HS: 77.3% (58 of 75)

3.0 Assessment of Student Learning Outcomes

3.2 Significant Assessment Findings

The program faculty should provide a narrative overview of the program's significant student learning outcomes assessment findings, any associated impact on curriculum, as well as any ongoing assessment plans. The program may attach data charts, assessment reports or other relevant materials. *(See Section 3.2 in the Program Review Handbook for more information.)*

Narrative:

Detailed Student Learning Outcome (SLO) data is available upon request.

For a majority of the SLO's, the faculty did not meet their learning expectations set at 70% of content mastery for 70% of the class. This is partially due to the nature of teaching a developmental course (students come in telling themselves they cannot do the material) and the motivation level of students as the semester continues on. Students are given full credit for attempting the homework, yet many do not turn in the homework or use math solvers to complete the homework for them. Not doing the homework negatively impacts their grade, but also removes an opportunity for the student to understand the material and try to learn how to do it without the instructor there to guide them. It is important to note that if we were to reduce the required level of mastery to 70% at 60% of content, many outcomes would be met. The reason to use a 60% mastery score is that a 60% (grade of D) is technically all that is required to pass any college course. In AY2021, outcome data has transitioned to 65% at 65%--a middle ground between the standard of 70% and "passing" at 60%.

Fixation on the developmental courses is not the goal of developmental math—it is to show growth in mathematical thinking that leads to successful completion of a college level mathematics course (generally college algebra). However, this is the first time in a few years that students who moved directly to college algebra and did not take any developmental math have outperformed the developmental math students who moved to college algebra. This is something to keep monitoring, though it is the belief of the reviewer that the switch to more online college algebra sections has an important impact on the number passing college algebra and the number passing the dev cycle. Students who are not mathematically strong were able to move on to college algebra due to adjuncts and a move to online math (because of COVID).

Continual monitoring of this program's passing percentages is suggested.

As for SLO's, there was not much of a different in the year to year passing percentages for Elem Algebra; Intermediate saw some major increases in outcome performance:

ELEM ALGEBRA:
Outcome 1: 77% down from 78%
Outcome 2: 85% up from 61%
Outcome 3: 54% down from 58%
Outcome 4: 59% up from 44%
Outcome 5: 59% up from 43%
Outcome 6: 49% up from 41%
Outcome 7: 60% up from 59%

INTER ALGEBRA:
Outcome 1: 66% down from 68%
Outcome 2: 61% up from 59%
Outcome 3: 45% down from 57%
Outcome 4: 49% up from 39%
Outcome 5: 43% up from 22%
Outcome 6: 57% up from 21%
Outcome 7: 60% up from 51%
Outcome 8: 50% up from 36%
Outcome 9: 48% up from 33%

4.0 External Constituency and Significant Trends

An important component of maintaining a superior program lies in awareness and understanding of other possible factors that may impact the program and/or student outcomes. After consideration of these other factors, program faculty should document the relevant information within this section. As applicable, this should include the following.

4.1: Program Advisory Committee:

Narrative:

- IncludeAdvisory Member Name/ Title/ Organization/ Length of Service on committee; note the Committee Chair with an asterisk (*).
- Upload meeting minutes from the previous spring and fall semesters and attach in the appendices section (10.0).

There is no committee that serves as an advisory to the program.

4.2: Specialized Accreditation:

- Include Accrediting Agency title, abbreviation, ICC contact; Agency contact, Date of Last Visit, Reaffirmation, Next Visit, FY Projected Accreditation Budget.
- Upload the most recent self-study and site visit documents.
- Upload agency correspondence which confirm accreditation status.

Narrative:

There is no specialized accreditation for the program

4.3: Other:

Discuss any external constituencies that may apply to the program. *(See Section 4.3 in the Program Review Handbook for more information.)*

Narrative:

Higher Learning Commission
HLC's Category One: Helping students learn focuses on the design, deployment, and effectiveness of teaching-learning process that underlie the institution's credit and non-credit programs and courses.
ICC Contact: George Knox, Interim President of ICC
Date of Last Visit: September 28-29, 2017

Reaffirmation: Fully Accredited
Next Visit: 2027-2028

5.0 Curriculum Reflection

5.1 Reflection on Current Curriculum

The program faculty should provide a narrative reflection that describes the program's curriculum holistically. The following are prompts formulated to guide thinking/reflection on curriculum. While presented in question form, the intent of the prompts is to stimulate thought and it is not expected that programs specifically answer each and every question.

- Is the curriculum of the program appropriate to the breadth, depth, and level of the discipline?
- How does this program transfer to four-year universities? (give specific examples)
- What types of jobs can students get after being in your program? (Please use state and national data)
- How dynamic is the curriculum? When was the last reform or overhaul?
- In the wake of globalization, how "internationalized" is the curriculum?
- How does the program assess diversity?
- Does the program have any community-based learning components in the curriculum?

Narrative:

Curricula is aligned directly with outcomes listed in college algebra, though delineated, and separated to give students a chance at learning the outcomes before having to combine multiple thoughts/actions to solve complicated college algebra problems and equations.

This program does not transfer to four-year universities, though intermediate algebra (or higher) is required for an AGS at the institution. Most notably, we do have students who take intermediate algebra to satisfy the admissions requirement for CNA licensure.

The curriculum has been in a constant state of flux. At the end of AY18, the math department switched from a Person book to Open Stax, (an OER) to save both students and the institution money as the books are fully available online. However, after one semester, we (the math department) found the books to be too high of a level for our students and began looking for a replacement. Hawkes sent us books to look at over the 2020 Spring (and subsequently adopted) as they helped with our transition to online in Spring 2019 during the COVID-19 pandemic.

Program faculty should list what degrees and certificates are offered and/or describe how the program curriculum supports other degrees and/or certificates awarded by the college.

5.2 Degree and Certificate Offerings or Support

Narrative:

The developmental math program does not offer any degrees or certificates. These courses serve to support students in their efforts to pursue an associate degree at the institution. Students who successfully pass the course progression pass college algebra (required for an AA or AS) at equal rates to those who do not take developmental math courses.

Intermediate algebra does fulfill a graduation requirement for an AGS but does not count towards the 60 hours needed to graduate with an AGS.

8.0 Fiscal Resource Requests/Adjustments

8.1 Budget Requests/Adjustments

Based on program data review, planning and development for student success, program faculty will complete and attach the budget worksheets to identify proposed resource needs and adjustments. These worksheets will be available through request from the college's Chief Financial Officer. Program faculty should explicitly state their needs/desires along with the financial amount required.

Programs should include some or all of the following, as applicable, in their annual budget proposals:

- Budget Projections (personnel and operation)

- Position Change Requests
- Educational Technology Support
- Instructional Technology Requests
- Facilities/Remodeling Requests
- Capital Equipment

  - Non-Capital Furniture & Equipment
  - New Capital Furniture & Equipment
  - Replacement Capital Furniture & Equipment

- Other, as applicable

  - Accreditation Fee Request

  - Membership Fee Request
  - Coordinating Reports

Resource requests should follow budgeting guidelines as approved by the Board of Trustees for each fiscal year. The resource requests should be used to provide summary and detailed information to the division Dean and other decision-makers and to inform financial decisions made throughout the year.

Narrative:

There is currently no budget for Developmental Math.

Current budgetary needs are being met through access to Professional Development funds and Instructional Supplies.

9.0 Program Planning and Development Participation

9.1 Faculty and Staff

Program faculty will provide a brief narrative of how faculty and staff participated in the program review, planning and development process. List the preparer(s) by name(s).

Narrative:

The following staff and faculty assisted in the preparation of this report:
Allen Shockley, Dev Math instructor
Brian Southworth, Full-Time Faculty, recorded assessment data
Anita Chappuie, Director of Institutional Research, processed assessment data
Jonathan Sadhoo, VP-Finance, budgetary data

After review and reflection of the *Comprehensive Program Review* or the *Annual Program Review,* the Division Chair and VPAA will write a summary of their response to the evidence provided. The Division Chair and VPAA's response will be available to programs for review and discussion prior to beginning the next annual planning and development cycle.

9.2 VPAA and/or Administrative Designee Response

Narrative:

Ater reviewing the Development Math report submitted by Allen Shockley there is no doubt that the courses provide a valuable factor in success of students at ICC. No changes at this time is the recommendation. Mark Allen, VPAA, 3/2/2021

Developmental Math continues to support students effort to be successful in credit bearing math courses. Brian Southworth (Division Chair of Math & Science and PRC member) 3.2.2021

10.0 Appendices

Any additional information that the programs would like to provide may be included in this section.