



In support of student success, the Maricopa County Community College District Developmental Education Project Team and Developmental Education Council have outlined a suite of academic supports—academic, non-cognitive, and basic—aimed at enhancing the holistic student experience.

With the goal of helping colleges provide students with the right support at the right time, this document highlights a widely adopted set of academic support options, based on student need, that Maricopa Community Colleges can begin to use and incorporate into their practices.

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## Goals

1. To provide students with the appropriate support intervention in a timely manner
2. To equip colleges with an academic suite of supports, or menu of options, that they can use and incorporate in order to help students be successful in completing their first-year college-level English and math requirements
3. To support Maricopa Community Colleges' Wildly Important Goal (WIG) of increasing equitable completion of a post-secondary credential and/or transfer rate for traditionally underserved students



## Success Model

### Systematic Support

This type of support is intentional and strategic in design. It guarantees the provision of appropriate and proactive support to all students in a course to ensure equity in student access. It is the antithesis to one-off, boutique interventions.

### Systemic Support

This type of support is ingrained, pervasive, and comprehensive within the student experience. It creates a culture of caring in which students are aware of and understand the full spectrum of support available to them throughout their educational journey.

In order to promote equity, belonging, and development throughout the student life cycle, **academic supports should be both systematic and systemic.**

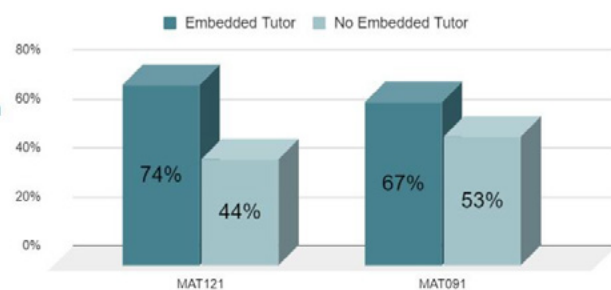
## Embedded Tutoring

An embedded tutor is a peer or professional who is hired to work with a specific class for proactive and intentional outreach. An embedded tutor:

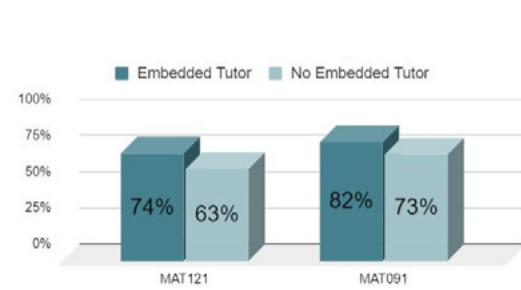
- Has successfully completed the assigned course or has experience tutoring the course
- Collaborates with the instructor for the duration of the course to design specific engagement opportunities between students and the embedded tutor to deepen students' understanding of course concepts
- May actively attend class sessions or is connected to students via asynchronous lesson design
- May hold office hours in the learning centers to further support the development of learning strategies and proficiency with academic content

### Embedded Tutoring Improves Student Successful Completion and Persistence

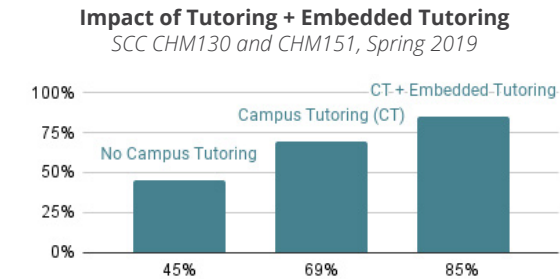
**MAT091, MAT121: Impact of Embedded Tutoring on Successful Completion**  
EMCC 2018 Study



**MAT091, MAT121: Impact of Embedded Tutoring on Semester Persistence**  
EMCC 2018 Study

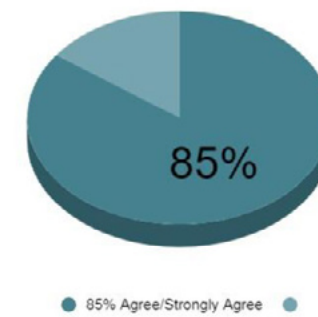


### Impact of Embedded Tutoring Amplifies Student Success When Used With Campus Tutoring



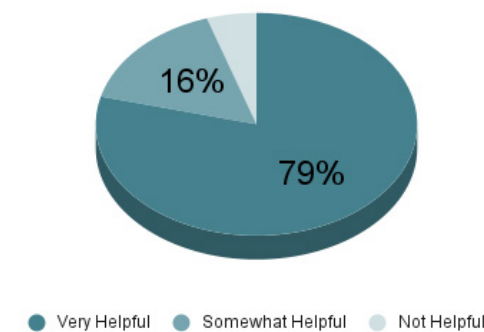
### Students Enrolled in Courses with Embedded Tutors Likely to Continue Campus Support

**ENG101, WAC101, RDG100LL: Embedded Tutoring and Likelihood of Future Tutoring Use**  
SCC Student Survey, Spring 2021-Spring 2022



### Students Find Embedded Tutoring Helpful

**Student Perceptions of Embedded Tutoring**  
MCC Fall 2021



## Funding Opportunities

### Course fees

To be equitable, all sections within the course offered must participate in embedded tutoring.

### Grants

Embedded tutoring improves success for at-risk populations. HERRF, Horizon, NSF, Title III, and Title V are all grants that can be used to fund embedded tutoring.

## Professional Development

To learn more about implementing embedded tutoring, contact one of the following

### Learning Center Directors:

Xochitl Arroyo, MCC  
Deanna Kalcich, SCC  
Martina Meraz in partnership with Jeanne Hanrahan (Title V Director), EMCC  
Nancy Sounart, GWCC

### Sample Guidelines and Orientation Materials

[MCC Embedded Tutoring Program Overview](#)  
[MCC Embedded Tutoring Faculty Orientation PPT](#)

## Use of Embedded Tutoring

In MCCC, embedded tutoring has been offered in physics, ESL, chemistry, biology, mathematics, English, and literacy courses.

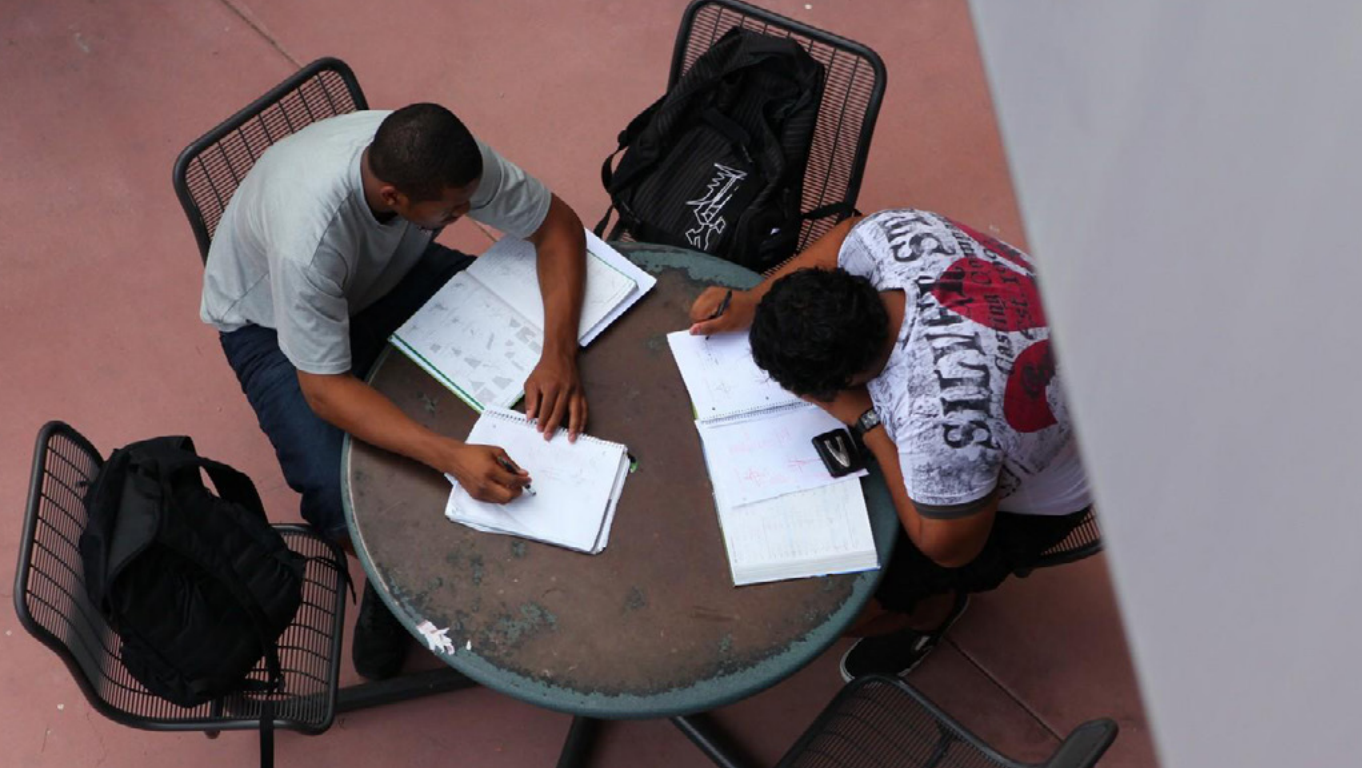
## Set-up/Logistics Information

### Important components of an embedded tutoring program:

- Obtaining funding
- Getting faculty buy-in
- Recruiting and hiring tutors
- Training faculty and tutors
- Collecting and analyzing data

### Things to consider:

- Peer vs. Professional Tutor
- Modalities: Live Online, Online, In Person



## Study Groups

Facilitated study groups are a supplemental form of support that complement lecture or lab and are held outside of normal class times. Study groups allow students to:

- Discuss course concepts, ask questions about class material, work together to solve problems, and gain practice using critical learning strategies in a non-threatening, ungraded environment
- Actively participate in the learning process by analyzing ideas, teaching and quizzing each other, and solving problems together—leading to deeper comprehension and better retention of course material
- Stay focused, prepared, and engaged throughout the course by being accountable to their peers

Study groups can be offered in person or online to accommodate students' schedules and learning needs.

### Research

- [Adaptation and Flexibility When Conducting and Planning Peer Study Group Review Sessions](#)
- [How Students are Leveraging Online Study Groups](#)
- [Incentivizing Students to Encourage Consistent Study Group Attendance is Associated With Improved Course Performance](#)
- [Student-Initiated Study Groups for STEM Classes in Community College Settings](#)

### Funding

There is no special funding for study groups. Tutors, students (peer leaders/mentors), and faculty conduct study groups as part of their regular duties or a service to students.

### Professional Development for Facilitators

[Creating Effective Study Groups](#) - Providence College  
[5 Tips for an Effective Study Group](#) - The University of Utah  
[Study in Groups](#) - Algonquin College

### Session Logistics

- If meeting in person, arrange seating so that all group members can easily see and interact with each other.
- If meeting online, select a platform that will allow for the number of participants and the type of activities planned. Ensure all technology is working prior to starting the meeting, and verify that the background is appropriate for a professional session.
- Ask open-ended questions and allow students time to work through concepts and problems.
- Acknowledge all student questions and comments and respond respectfully.
- Ensure all students actively participate in each session by including informal, formative assessments.
- Redirect dominant students so that they do not control the conversation.
- Keep the group on topic by limiting distractions like socializing and venting.
- If online, encourage students to turn on their cameras, but respect their privacy if they choose not to because of technology issues or distractions in their physical environment.
- Utilize frequent verbal encouragement and use students' names to increase student engagement.
- Use positive non-verbal cues like smiling and nodding.
- Formally end each session with a review of the concepts that were covered (encourage all students to participate) and a reminder about upcoming sessions.
- If possible, provide students with a Google doc (or other type of collaborative document) with an outline of the study group session, and ask all student participants to add their takeaways and summarize the learning. Facilitators can add links to relevant learning resources for the group.



Study group with Jayla: Working together to better understand a problem is an amazing way to learn the material. I would recommend this activity to other students. It is beneficial to work through problems and learn from others.

### Guidelines

- Identify a facilitator, usually a learning center tutor, an instructor, or a student who has successfully completed the course
- Schedule study groups based on student availability after identifying days/times through an informal survey
- Establish a consistent meeting schedule for the semester—ensuring the group meets at least once per week or prior to major assignments
- Keep the study group small (no more than 15 students)
- For in-person study groups, make sure the meeting space has necessary resources, such as computers, tables, outlets for laptops, whiteboards, textbooks, etc.
- Have an agenda or plan for each session (e.g., chapter 4 concepts, student questions/concerns, problem-solving exercises, test date reminder, session summary)
- Encourage students to prepare for study sessions by reading course material, reviewing their notes, and identifying difficult or confusing topics
- When possible, create resources like handouts, practice exercises, and study guides to distribute to students

### Study Groups at Mesa Community College

According to Jennifer Caldwell, Professor of Math at Mesa Community College, there are six benefits of group study:

- Eliminates procrastination
- Helps students learn faster
- Fills in gaps in notes
- Sharpens students' study skills
- Breaks up monotony of studying alone
- Helps develop people skills

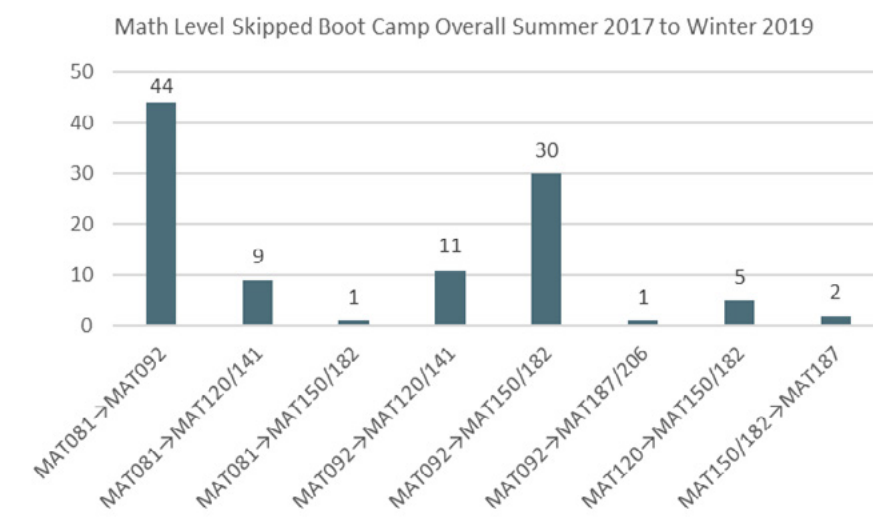
As part of Professor Caldwell's MAT156 class, students participate in campus activities outside the classroom, including study groups with their classmates. The study group can be in person or virtual, but most students meet with their study groups in person and use the tutoring center as their location. After each activity, her students have to upload a photo of their activity and reflect on their activity in a Canvas discussion board.



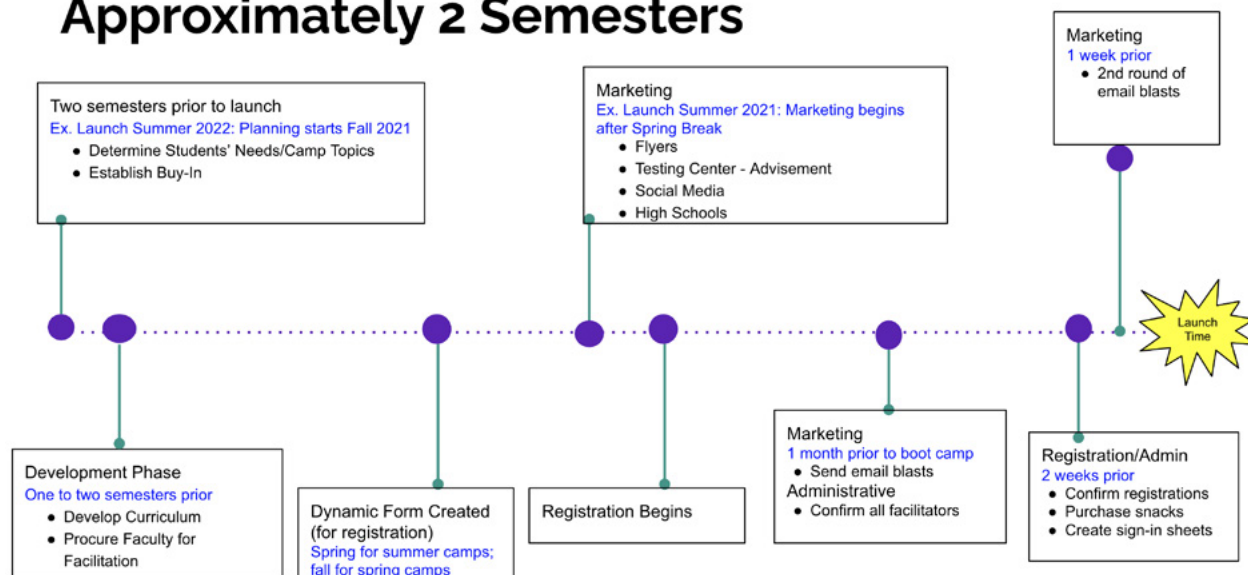
## Academic Preparation

Academic preparation includes services and tools that prepare students for placement and college coursework. It can also be used to stimulate interest and aptitude for programs of study. Academic preparation exists in many forms, including boot camps, summer bridge programs, and student success strategy instruction. Academic preparation is often conducted during the summer or winter, but can also be integrated into the semester. Offerings can be delivered in person, virtually, or asynchronously, and technology enhancements are appropriate for all modalities. Boot camps are a popular student support with 56% of public two-year colleges using boot camps or pre-matriculation programs for Developmental Math students and 43% of public two-year colleges using boot camps or pre-matriculation programs for Developmental Reading & Writing students (Center for the Analysis of Postsecondary Readiness institutional survey, fielded in 2016). This section will focus on academic boot camps.

**Boot camps have been correlated with improved course placement. Over a two-year period, MCC students who retook the placement test were often able to skip one or more levels within the math sequence.**



# Boot Camp Implementation Timeline: Approximately 2 Semesters



Ideally, colleges will start planning two semesters before they launch a new boot camp.

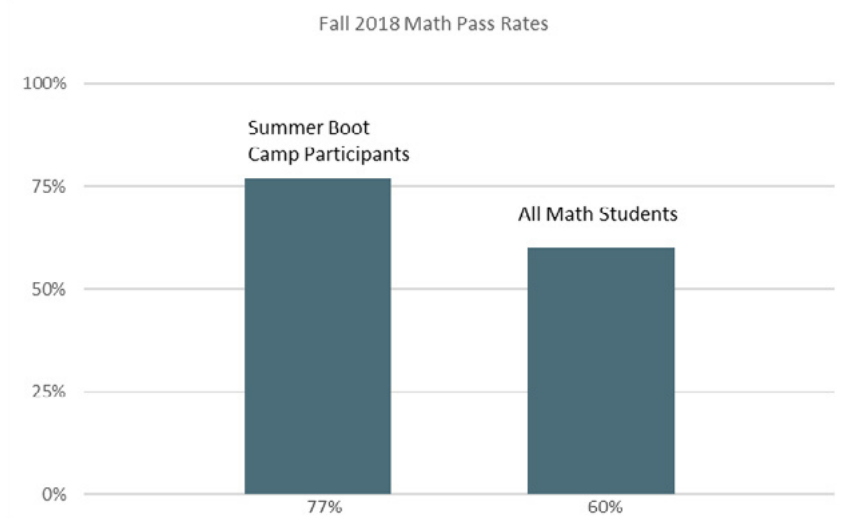
## Alignment with MCCCD First-Year Critical Experiences

### Course Preparation

Students often needed a refresher over the summer due to time away from school (time in the workforce, deployment, parenthood) to refresh concepts and practice skills critical to upcoming courses. Boot camps align with two of the five Critical Student Experiences, as outlined by the National Center for Inquiry & Improvement:

- Students should have opportunities to build connections and engagement at the college in their first year
- Degree-seeking students should be supported to complete college level ENG & MAT in their first year

Boot camps have been correlated with improved student performance. MCC math boot camp participants who enrolled in a math class in Fall 2018 had higher pass rates than the math department average.



### Guidelines

[MCC Boot Camps Proposal](#)



## GWCC & MCC

GateWay Community College has offered many boot camps, including Power Math Camp I and II (in person and through Canvas). They have also offered HESI (nursing entrance exam) and writing boot camps.

Mesa Community College has recently added STEM and computer science boot camps to help students develop interest and build skills in introductory/gateway courses.

Boot camps are typically offered during summer and winter breaks in preparation for the return to school.

### What MCC Students Are Saying:

*"I was able to grasp concepts that I haven't for a decade."*

*"Now I think I have a shot at math."*

*"I appreciated the welcoming class environment. I felt most comfortable asking questions after the instructors stated that our purpose there was to 'improve' and not 'prove' our knowledge."*

*"Ready for math after 17 years."*

*"I am investing in me!"*

## Best Practices

### Faculty Collaboration

- Curriculum development
- Facilitate Boot Camps

### Access to Material

- Updated Canvas page for easy accessibility
- Printed handouts for in-person option

### Boot Camp Values

- We rise by lifting others
- We show up to improve, not to prove

### Peer Support

- Peer tutors assist Boot Camp participants
- Use embedded tutors or students in the major

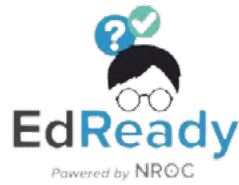
### Placement Preparation

- Infuse concepts from EdReady throughout
- Review logistics of EdReady including login, goals, and study paths

For more information about boot camps, contact one of the following Academic Support Leads: Melissa Carpenter and Lavinia Sebastian, MCC; Nancy Sounart, GWCC

## EdReady and HippoCampus

MCCCD's NROC membership comes with access to two free resources that can help faculty support students within their courses: **EdReady** and **HippoCampus**.



**EdReady** can be used as an academic support tool within courses, providing students with personalized learning paths that can help them fill in their knowledge gaps and continue to build their foundational skills in English, reading, and math. EdReady's customizable content allows faculty to create modules (which are referred to as "scopes" within the EdReady platform) that will align to the specific course outcomes, providing students with relevant content to help them meet their goals.



**HippoCampus** is another tool that can be leveraged throughout the semester to help students build their skills in a wide variety of areas. It provides access to over 7,000 multimedia presentations, simulations, and worked examples in subjects like sociology, biology, religion, math, English, and more. Maricopa's [customized HippoCampus site](#) includes videos to support both emerging and advanced learners and allows instructors to create customized pages and playlists to share with students.

EdReady's platform includes robust data reporting elements that can help faculty see how their students are progressing and whether they have mastered the skills within their individualized study plan.

First Name	Last Name	Email	Start Name	Start Date	Unit	Score	Progress
Amy	Adams	amy@edready.com	Math 101 - Fall 2016 - Ms. Smith	10/15/2016	10	100%	
Alice	Myers	alice@edready.com	Math 101 - Summer 2017 - Mr. Jones	7/1/2017	85	85%	
Edwin	Loke	edwin@edready.com	Math 101 - Summer 2017 - Mr. Jones	7/1/2017	36	36%	
Christelle	Boyer	christelle@edready.com	Math 101 - Summer 2017 - Mr. Jones	7/1/2017	62	62%	
Ellen	Wideman	ellen@edready.com	Math 101 - Summer 2017 - Mr. Jones	7/1/2017	72	72%	
James	Robinson	james@edready.com	Math 101 - Summer 2017 - Mr. Jones	7/1/2017	55	55%	

### Set-Up/Logistics Info

To get started with EdReady, contact Holly Rouse (holly.rouse@domail.maricopa.edu) to be issued an account.

HippoCampus is ready to use without any additional setup. Students can access HippoCampus freely, and faculty do not need to configure any special urls to share content.

### Professional Development

EdReady and HippoCampus support materials (including pre-recorded webinars highlighting how MCCCD instructors are using EdReady as an academic support for reading, math, and English) can be found at the [MCCCD Developmental Education website](#) under the 2022 NROC & Maricopa Spring Webinar Recordings & Materials header.

### How Glendale Community College is Using EdReady for Academic Support

When EdReady became available as an Open Educational Resource (OER) option, ENG101 and 101LL faculty at GCC decided to replace the previous digital textbook and adaptive technology with this OER resource for skills support and practice. Using the course competencies as a guide (in tandem with their understanding of the frequent skills gaps that students have), the team created a shared scope that they have all implemented into their courses. This shared scope includes 10 units that students complete over the course of the semester. The target score is set at 85% and students can work toward that goal throughout the semester.

Similarly, since Spring 2021, RDG 100LL has incorporated EdReady as an OER curricular support. In the same way as outlined above, students were provided with a customized study path to support the necessary skills to help them meet the competencies for the course.

In both instances, the work is self-paced, personalized, and adaptive. To begin, students are required to take a diagnostic (that is focused on the lessons in the course specific scope) to determine which skills they have mastered and which skills are still emerging and need review. Based on their individual needs and performance, students are able to get started working on their study path to review and practice the skills gaps to support their learning and help them be successful in the course.

### What GCC Students Are Saying:

*"I liked how EdReady tested your knowledge and only made you learn what you didn't already know."*

*"EdReady made me better prepared for the writing assignments but also allowed me to complete the preparation at my own pace."*

*"Students get to save money and it's very easy to use."*

### Guidelines

- Use this detailed [spreadsheet](#) of all of the HippoCampus learning objects to easily determine which are iOS compatible, closed captioned, or compatible with assistive technologies
- Better understand your students' needs, efforts, and growth by accessing the [robust reporting](#) capabilities offered in the EdReady platform
- [Find and connect](#) with colleagues across the District who are using EdReady & HippoCampus
- Looking for even more assessment data? Set up a shared EdReady scope for your department to collect data across your discipline or course offerings



## Glossary

### Academic Preparation

Academic preparation includes services and tools that prepare students for placement and college coursework. It can also be used to stimulate interest and aptitude for programs of study. Academic preparation exists in many forms, including boot camps, summer bridge programs, and student success strategy instruction. Academic preparation is often conducted during the summer or winter, but can also be integrated into the semester.

Offerings can be delivered in person, virtually, or asynchronously, and technology enhancements are appropriate for all modalities.

### Embedded library faculty

An embedded library faculty member works closely with an instructor for the duration of a course to help support students' understanding of information literacy-related course outcomes. Embedded library faculty collaborate with instructors to design information literacy learning outcomes within a course. The embedded library faculty member provides contextualized instruction at multiple points throughout the semester, and is available to support students throughout the duration of the course via office hours, discussion posts, and other interactions (either online or in person). Student interaction with the library faculty member is required. Embedded library faculty have opportunities for assessment of student learning outcomes and instructional activities within the course. Individual library instruction sessions, course LibGuides, tutorials, or modules are NOT examples of embedded library faculty work for the purposes of this inventory (although those activities can take place as part of embedded library faculty work).

### Embedded tutor

An embedded tutor is a peer or professional tutor who is hired to work with a specific class for proactive and intentional outreach.

The embedded tutor has successfully completed the assigned course or has experience tutoring the course. The embedded tutor collaborates with the instructor for the duration of the course to design specific engagement opportunities between students and the embedded tutor to deepen students' understanding of course concepts. The embedded tutor may actively attend class sessions or is connected to students within asynchronous lesson design. The embedded tutor may also hold office hours in the learning center to further support the development of learning strategies and proficiency with academic content.

### Enhanced library faculty support

This type of support is defined as collaborative work between library and other discipline faculty to develop and provide library instruction, instructional materials, or assignments tied to information literacy learning outcomes within a course. It does not involve continuous in-person (or online) interaction with enrolled students throughout the duration of the course, although it could involve one or more library instruction session(s) throughout the semester. Examples of enhanced library faculty support include: creating research-based assignments, customized Canvas or RioLearn modules, customized course tutorials, LibGuides, and instruction sessions.

### Enhanced literacy support

This type of support is defined as collaborative work between reading faculty and other discipline faculty to develop and provide literacy scaffolding that enhances student access to materials or assignments. It does not involve continuous in-person (or online) interaction with enrolled students throughout the duration of the course; instead, faculty work together to identify potential literacy barriers and address these issues through improved instructional design or materials. While each course may have a different targeted need for literacy support, courses utilizing enhanced literacy support engage in collaboration with reading faculty on their campus and have measurable deliverables designed to support the literacy needs of students in the course.

### Enhanced tutoring

Enhanced tutoring is a method of integrating learning center support in a course without having a specific tutor assigned to the course. This could entail allowing tutors access to a Canvas course, embedding a module into a Canvas course that connects students with tutors in the learning center, or recruiting students to workshops/study sessions held in the learning centers. Enhanced tutoring may also involve a tutor from the learning center providing a stand-alone lesson. Additionally, embedded modules on foundational skills can also be utilized to supplement learning in a disciplinary class (a writing module for a sociology class or research guide for a history class).

### Peer mentor

A peer mentor is a current student who helps other students learn how to navigate college. The peer mentor focuses on the affective domain and skills for student development, and provides support and resources as appropriate. The peer mentor models and explains student success strategies and conducts outreach. A peer mentor is often embedded into a First Year Experience course or student success course. Sometimes peer mentors are also utilized in core courses such as mathematics.

### Peer tutor

A peer tutor is a current student who works in a learning center and/or is embedded in a class (including those assigned to MAT108: Tutored Mathematics). A peer tutor focuses on assisting students with academic content and learning strategies. In most cases, the peer tutor has successfully completed the assigned course.

### Professional tutor

A professional tutor is a tutor with a degree in their primary subject area who works in a learning center and/or is embedded in a class. A professional tutor assists with academic content and learning strategies in a range of coursework within a specific subject area.

### Supplemental Instruction (SI)

Supplemental Instruction, as defined, accredited, and created by the University of Missouri-Kansas City UMKC), is a voluntary, non-remedial form of academic learning support. Supplemental Instructional Leaders who are trained in accordance with UMKC accreditation attend the respective class and schedule collaborative study groups outside of the class. Supplemental Instruction is typically for high-risk courses. For more information, please visit <https://info.umkc.edu/si/>.

### Systematic Support

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### Systemic Support

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The Maricopa County Community College District (MCCCD) is an EEO/AA institution and an equal opportunity employer of protected veterans and individuals with disabilities. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, age, or national origin. A lack of English language skills will not be a barrier to admission and participation in the career and technical education programs of the District.

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