



CHOOSE OHIO FIRST SCHOLARSHIP PROGRAM

STUDENT SUCCESS IN MATHEMATICS

**FREE¹ STEM² JUNIOR-TO-SENIOR SUMMER BRIDGE ENRICHMENT PROGRAMS
SUMMER '08 – SUMMER '11**

+

FREE³ POST-SENIOR SUMMER CALCULUS OR PRE-CALCULUS COURSES

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**SCHOLARSHIPS FOR MATRICULATED COLLEGE OF STEM MAJORS
FALL '08 – SPRING '12**

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YSU COFSP COHORT ACTIVITIES AND PROJECTS

LOCAL COLLABORATION OF:

*Youngstown State University
Chaney High School
East High School
Girard High School
Liberty High School (2009)
Warren G. Harding High School
Youngstown Early College*

IN CONSORTIUM WITH:

Case Western Reserve University
Cleveland State University
Cuyahoga Community College
Kent State University
University of Akron
Youngstown State University

1. **Free:** Summer bridge enrichment program instructional and required fees are paid by YSU as well as textbooks and instructional materials

2. **STEM:** Science, Technology, Engineering, Mathematics

3. **Free:** Course fees are paid by YSU

Introduction

In Spring 2008, the State of Ohio awarded 4.5 million dollars of the Choose Ohio First Scholarship Program (COFSP) to a consortium comprising Case Western Reserve University, Cleveland State University, Cuyahoga Community College, Kent State University, University of Akron, and Youngstown State University to increase the number of STEM graduates in Northeast Ohio by improving mathematics preparedness for STEM majors.

Almost all College of STEM programs at Youngstown State University require two or more semesters of some form of calculus. These programs occur in two groups depending on the mathematical preparedness that is needed to enter and finish the major in a timely fashion (4–5 years): some require the students to enter calculus ready and the others require the students to enter pre-calculus ready.

The intent of the Youngstown State University part of the consortium grant is to identify high school students who are interested in and have potential for STEM programs and need special help to make them precalculus or calculus ready. This help will be provided by free Summer Junior-to-Senior Bridge Enrichment Programs in the summers between their junior and senior high school years, provision of free precalculus and calculus courses in the Summer following their senior high school year, followed by formation of COFSP on campus cohorts with mentoring, activities, and projects.

Critical to carrying out this mission will be Youngstown State University's partnering secondary institutions.

Youngstown State University is joined by partnering secondary institutions in implementing this goal in the Mahoning Valley: Chaney High School (Youngstown), East High School (Youngstown), Girard High School (Girard), Liberty High School (2009), Warren G. Harding High School (Warren), and Youngstown Early College (Youngstown + Youngstown State University); and other urban or rural high poverty districts will be added as appropriate. The specific purpose of this coalition is to identify and prepare four cohorts of students for success in precalculus or calculus the Fall semester of their freshman year at YSU in a College of STEM major, the four cohorts to matriculate in four successive academic years beginning with Fall 2008.

Under the terms of the grant, students who complete the Bridge Enrichment Program and subsequently place at the mathematics level appropriate for their chosen STEM program, are given first priority for free precalculus and calculus courses in the summer following their senior high school year as well as COFSP funding and being part of a YSU COFSP cohort, and are therefore eligible for no less than \$1,500 and, on a need basis, for no more than \$4,700 in COFSP tuition monies for a maximum expenditure of \$84,600 per cohort per academic year at YSU. On the current funding cycle, subject to making timely progress through their STEM program and maintaining at least a 3.00 GPA, awardees of the first cohort would receive four years of support; awardees of the second cohort would receive three years of support; awardees of the third cohort would receive two years of support; and awardees of the fourth cohort would receive one year of support. It is hoped that this grant will receive renewed funding from the next funding cycle so that all supported students in the first four cohorts would receive four years of support.

COFSP Programs at YSU

The YSU COFSP includes these components: free YSU Summer Junior-to-Senior Bridge Enrichment Programs for students between their junior and senior high school years, free precalculus and calculus summer courses in the summer following their senior years, COFSP funding for eligible students, YSU activities for matriculated COFSP cohorts, and COFSP program assessment. Especially crucial to the YSU COFSP are the Summer Junior-to-Senior Bridge Enrichment Programs and selection of student cohorts for COFSP scholarship funding. The applications and selection processes for these programs are described below under **How to Apply**.

Free YSU Summer Junior-to-Senior Bridge Enrichment Program Participants

Junior high school students will be identified in each academic year, beginning Fall 2007 through Fall 2010, by local partner faculty and administration in partnering institutions and encouraged to apply for the free YSU Summer Junior-to-Senior Bridge Enrichment Program to take place in the following Summer. Appropriate candidates for these Summer Programs are students interested in STEM programs, have potential for STEM areas, but need special help to achieve precalculus or calculus readiness by 1 March of their senior year. Up to 45 students will be accepted for each Summer Bridge Program.

Metrics for identification of such students include their high school course work performance, diagnostic tools such as COMPASS and the Ohio Early Mathematics Placement Testing Program (<http://www.empt.org/empt/>), and being on track for their high school diploma.

Free YSU Summer Junior-to-Senior Bridge Enrichment Program Content

Summer Junior-to-Senior Bridge Enrichment Programs will be designed by a team of YSU faculty and local partner mathematics faculty and will be coordinated with the junior and senior year coursework of students registered in the program. Content will assume the successful completion of Algebra II, focus on material bridging between the junior and senior years, including giving students more algebra and trigonometry preparation, and administratively count as 3 WH for limited or full-service faculty involved in its teaching. A student is viewed as successful if they make significant progress as measured by pre-testing and post-testing and if in their senior high school year they demonstrate precalculus or calculus readiness depending on their STEM program matriculation requirements.

Summer junior-to-senior bridge programs will be four weeks in length, five days a week, from 8:30 a.m. to 12 noon, on the YSU campus, immediately after the conclusion of the Spring term in the partner institutions

Costs for instructional and required, textbooks, and instructional materials will be borne by YSU.

Free YSU Post-Senior Summer Calculus/Pre-Calculus Courses

Students eligible for the Post-Senior Summer Calculus or Pre-Calculus courses are high school seniors who have been admitted to YSU, accepted into the YSU COFSP Cohort for the Fall term following their senior year, and deemed eligible for COFSP scholarship funding beginning that Fall term. See "Selection of YSU COFSP Cohorts for Scholarship Funding" below. Tuition costs of these Summer courses will be borne by YSU.

Summer Programs Management

All summer programs at YSU will be managed by the YSU COFSP grant administrator, who will report to the consortium grant management team, the YSU grant management team, and the Associate Dean of the College of STEM.

Selection of YSU COFSP Cohorts for Scholarship Funding

Acceptance into a YSU COFSP Cohort includes the requirement that a student by March 1 of their senior year is **calculus ready** if their chosen YSU STEM major is one of computer science, engineering, mathematics, physics, statistics or **precalculus ready** if their chosen YSU major is one of biology, chemistry, computer information systems, engineering technology. Calculus ready means an ACT math subscore of 27 **or** YSU Mathematics Placement Level of 70 **or** COMPASS scores in College Algebra and Trigonometry of 65 and 36, respectively; and precalculus ready means an ACT math subscore of 22 **or** YSU Mathematics Placement Level of 40 **or** COMPASS score in Algebra of 65. Such CSTEM students are called "qualified seniors" in the sequel.

While applications from all qualified seniors are welcome and given full consideration, there is a special priority on those qualified seniors that completed the YSU Junior-to-Senior Summer Bridge Enrichment Program during the summer between their junior and senior years; and there is also a priority on qualified seniors from partner high schools, qualified seniors from Youngstown-Warren area urban or rural high-poverty districts, and qualified seniors with financial need.

Additional principles governing acceptance and scholarship awards and benefits are the following, besides the free calculus/precalculus course the Summer following Cohort membership their high school senior year:

- Students must be admitted as full-time YSU students in a College of STEM program.
- Each supported student shall receive from COFSP at least \$1,500 per academic year and no more than \$4,700 per academic year; and each student is eligible for a free calculus or precalculus course in the Summer term immediately following their high school graduation.
- COFSP monies can be applied to any part of YSU total cost of attendance (TCA)..
- COFSP monies are last dollar: these monies can only be applied if the student's TCA is not completely supported from other sources.
- COFSP monies are distributed on a need basis to each Cohort member according to the following formula:
TCA – EFC (as determined by the FAFSA) – other aid available to that student.

Other Financial Aid Available to New YSU Students

Each new YSU COFSP Cohort student should be aware of various kinds of grants and loans available at YSU, and it is strongly encouraged that each Cohort student go to www.ysu.edu/finaid for a detailed description of available financial aid. The following is sample of such aid:

- A Pell grant is need based, provides up to \$4,371/year, and can be applied to any part of TCA – EFC.
- An Ohio College Opportunity Grant (up to \$2,496/year) is a tuition grant and need based.
- An Academic Competitiveness Grant provides \$750 the freshman year and \$1,300 the sophomore year.
- SMART grants are for junior and senior STEM majors, provide \$4,000/year, and need not diminish COFSP (U.S. citizen, Pell-eligible, 3.00 current GPA).
- Red & White Scholarships provide \$1,500/year for new students. The YSU Financial Aids and Scholarship Office encourages all applicants for YSU COFSP Cohorts to indicate their interest as soon as possible if they qualify for the Red & White—22 ACT composite, H.S. GPA of 3.00).
- Martin Luther King Achievement Award is need-based and is available to students coming from Youngstown-Warren area schools. Students or their parents should contact the YSU Office of Financial Aids and Scholarship Office at 330-941-3505 to check that their school is on the approved list.
- S-STEM NSF Scholarships is need-based (up to \$5,000/year). This scholarship is for any STEM major except pre-med and pre-pharm. Students must have ACT 20 composite or be in the upper 25% of their class.

Mentoring Program for COFSP Students On YSU Campus

Calculus ready Cohort students will enroll in MATH 1571 and begin immediately a College of STEM major in computer science, engineering, mathematics, physics, and statistics consistent with other entrance requirements for those programs (requirements in English, etc). Precalculus ready Cohort students will enroll in MATH 1513 and begin immediately a College of STEM program in biology, chemistry, computer and information systems, engineering technology consistent with other entrance requirements for those programs (requirements in English, etc).

A mentorship program is set up and administered by the YSU COFSP grant administrator to oversee the progress of Choose Ohio First Scholarship students. Older Cohort students will help mentor younger Cohort students. There will also be special programs of cohort activities both on campus and in the consortium, including Cohort meetings and the annual COFSP Spring Mathematics Poster Conference and related research activities..

As a condition of COFSP funding, YSU COFSP Cohort members are expected to fulfill certain obligations: Cohort meetings, mentoring younger Cohort members, participation on Cohort research project teams, presentations of project team work at QUEST and the annual COFSP Spring Mathematics Poster Conference.

Continuation in the COFSP program is dependent on State funding and good academic progress toward finishing a student's STEM program in a timely fashion. Students will be supported with COFSP scholarship monies in a subsequent year if program funding permits, an overall GPA of 3.00 is maintained, and course schedules are consistent with STEM programs in which they are matriculated.

How to Apply for Bridge and Scholarship Funding Programs

Application for YSU Junior-to-Senior Summer Bridge Enrichment Program

Junior students wishing to apply to the **YSU Junior-to-Senior Summer Bridge Enrichment Program**, and hoping to be eventually eligible for COFSP monies, should satisfy the following requirements:

- Ohio resident.
- Successfully passed the Ohio Graduation Test (OGT).
- On track for high school diploma at the conclusion of the Spring term of their senior year.
- Accumulative high school GPA at least 2.5 by end of Fall term of junior year.
- Demonstrated interest in STEM programs (see *statement of Interest* below).
- Demonstrated potential for STEM programs (see *high school teacher recommendations* below).
- Completion of Algebra II by end of their junior year.
- Demonstrated need for additional mathematics instruction to achieve either precalculus preparedness or calculus preparedness depending on target STEM major (see *high school teacher recommendations* below).

Completed bridge enrichment applications for **junior students** include the following:

- Completed Junior-to-Senior Summer Bridge Enrichment Program application form (follow links at <http://stem.ysu.edu/cofsp.php>) by **15 March** of junior year.
- Statement of interest in STEM by **15 March** of junior year (no more than one page).
- Two high school teacher recommendations by **15 March** of junior year.

These materials—COFSP bridge enrichment program application form, statement of interest, teacher recommendations—should be mailed in one envelope to the following address no later than **15 March**.

COFSP: Junior-to-Senior Summer Bridge Program
Associate Dean of the College of STEM (CSTEM)
Moser Hall 2285
Youngstown State University
Youngstown, OH, 44555-3347
330-941-3347/3753/2512

Application for Choose Ohio First Scholarship Program Funding

Senior students wishing to apply for **Choose Ohio First Scholarship Program funding** at YSU should satisfy the following requirements:

- Ohio resident.
- Successfully passed the Ohio Graduation Test (OGT).
- On track for high school diploma at the conclusion of the Spring term of their senior year.
- Accumulative high school GPA at least 2.5 by end of Fall Term of senior year.
- Demonstrated interest in chosen STEM major (see *statement of Interest* below).
- Demonstrated potential for STEM programs (see *high school teacher recommendations* below).
- Completion of Algebra II.
- **IF** chosen STEM major is computer science, engineering, mathematics, physics, statistics, **THEN**
 ACT math subscore **27** **OR**
 YSU Mathematics Placement Level **70** **OR**
 COMPASS College Algebra subscore **65** and Trigonometry subscore **36**
 on record by **1 March** of senior year.
- **IF** chosen STEM major is biology, chemistry, computer information systems, engineering technology, **THEN**
 ACT math subscore **22** **OR**
 YSU Mathematics Placement Level **40** **OR**
 COMPASS Algebra subscore **65**
 on record by **1 March** of senior year.
- Completion of FAFSA form by **15 February** of senior year.
- Completion of YSU Institutional Aid Application (go to www.ysu.edu/finaid) by **15 February** of senior year.
- Completion of YSU Undergraduate Admission Application—and on file in the Admissions office—by **15 February** of senior year.
- Other criteria as required by the YSU Office of Undergraduate Admissions.

Completed Choose Ohio First Scholarship Program applications for **senior students** include the following:

- Completed Choose Ohio First Scholarship Program application form (follow links at <http://stem.ysu.edu/cofsp.php>) by **1 March** of senior year.
- Statement of interest in chosen STEM major by **1 March** of senior year (no more than one page).
- Two high school teacher recommendations by **1 March** of senior year.

These materials—COFSP funding application form, statement of interest, teacher recommendations—should be mailed in one envelope to the following address no later than **1 March**.

COFSP: Funding Application
Associate Dean of the College of STEM (CSTEM)
Moser Hall 2285
Youngstown State University
Youngstown, OH, 44555-3347
330-941-3347/3753/2512