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<tr>
<th>Time</th>
<th>Agenda Item</th>
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<tbody>
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<td>12:35</td>
<td>University of Akron</td>
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<tr>
<td>1:05</td>
<td>Youngstown State University</td>
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<tr>
<td>1:35</td>
<td>Muskingum University</td>
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<td>2:05</td>
<td>Findlay University</td>
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<td>2:35</td>
<td>Baldwin Wallace</td>
</tr>
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<td>3:05</td>
<td>Columbus State University</td>
</tr>
<tr>
<td>3:35</td>
<td>Bowling Green State University</td>
</tr>
<tr>
<td>3:35-4:00</td>
<td>Conclusion/ Informal Q&amp;A</td>
</tr>
</tbody>
</table>
Avis Brown
Program Director, Choose Ohio First
The University of Akron
May, 18th 2018

Proactive Support Model
Root to Fruit
Overview

- Recruitment
- Running Start
- Intrusive Support
- Goal Setting Meetings
- Progress Reports
- Socio-Cultural Events
- Peer Mentoring
- Supplemental Instruction
- Office Environment
- Outcome
Program Components

• Recruiting/Pipelines

• Running Start Summer Bridge Program

• Life/Success Coaching
  • Academic monitoring
  • Goal-setting

• Supplemental Instruction
  • Tutor Mentors

• Community engagement, service & leadership
Recruitment

• 2 Recruitment Coordinators-COF staff dedicated specifically for recruitment

• Visits
  • Day long school visits
  • UA visit days (Admissions, Engineering, College of Nursing, etc).
  • Community partners and outside fairs

• 5 star visit days
  • Recruit for Running Start as well as COF
  • Interested students shadow our current scholars in class
  • Recruit students and families into the program
Running Start Summer Bridge

• Running Start Summer Bridge
  • Live on campus
  • Eight-week math course
    • Supplemental Instruction
  • Goal Setting and College Success Workshops
  • Socio-Cultural Activities
  • Students who comply with expectations become COF Scholars for the Fall semester and receive scholarship
Living Learning Community

• Running Start students that successfully complete the program are required to live together in a Learning Community (Fall/Spring)
• Resident Assistant is COF scholar
• Take Freshman Experience class together
Intrusive Support

• Consists of requiring students to do what will be helpful to them, even when they do not want to do so.

• Components:
  • Individual Success Plans
  • Life coaching/mentoring
  • Progress reports
  • Socio-cultural events
  • Mentoring
  • Supplemental Instruction
Goal Meetings

- Individual Success Plan
  - S.M.A.R.T. Goals
- Academic and Life/Sociocultural Goals
- Build rapport and get to know Scholars
- Identify barriers to Scholars’ success
- Goals created collaboratively with Coordinators and Scholars
- Follow up with Scholars throughout semester
## Individual Success Plan

<table>
<thead>
<tr>
<th></th>
<th>Pell Grant Recipient</th>
<th>Has Dependents</th>
<th>Non-Traditional</th>
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<tr>
<td></td>
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<td></td>
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</tr>
<tr>
<td>First-Generation College Student</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English is NOT first language</td>
<td></td>
<td>Veteran</td>
<td>Ethnic Minority</td>
</tr>
<tr>
<td>Urban, Public High School</td>
<td></td>
<td>Foster Care/Ward of the Court</td>
<td>IEP/504 Plan</td>
</tr>
<tr>
<td>Works <em>18</em> Hours/Week</td>
<td>Commutes</td>
<td>Other (Please Indicate)</td>
<td></td>
</tr>
</tbody>
</table>
Progress Reports

• Submit twice during the semester

• Multiple purposes:
  • Scholar knows their grade
  • Scholar builds relationships with professors
  • COF staff are aware of Scholar grades
  • COF staff can require Scholar to get additional help if grades are poor (C or below)
Choose Ohio First STEM & Pipeline Initiatives

Academic Progress Report

Scholars, please PRINT the following information:

Student Name ____________________________

STEM Staff
Amy Brown  Dawda Coker  Alex DeLuca
Christina Rose  Katie Schrader  Shaddick Stinson

Zips Email ____________________________

Student ID # ____________________________

Course Name: Musculoskeletal Anatomy II

Course Number: 5550-461  Section Number: 001

Instructor Name: Stacey Buser

Term: [ ] Fall, 2018  [X] Spring, 2018  [ ] Summer, 2018

Faculty Member: [ ] Required

The student listed above is required to submit academic progress reports as a STEM Scholar for the 8th week (Friday, February 23rd) and 12th week (Friday, April 6th). Your assistance in providing this information is appreciated.

Grade Average to Date: [ ] Grade is “A” [ ] Grade is “D”
[ ] Grade is “B” [ ] Grade is “F”
[ ] Grade is “C” [ ] No Grades

[ ] Quit Grades [ ] Passed Grades

[ ] A [ ] B [ ] C [ ] D [ ] F

Attendance & Timeliness: [X] Good  [ ] Fair  [ ] Poor

Attitude: [X] Good  [ ] Fair  [ ] Poor

Overall Effort: [X] Good  [ ] Fair  [ ] Poor

Comments: Study often, Group Study

Bri es in Jams

Instructor’s Signature ____________________________

The Scholar is responsible for distributing, collecting, and returning this form to the COFPO Office in Simon 301.

Choose Ohio First & Pipeline Initiatives

Shimsoro 301
Akron, OH 44325-1900
330-972-7700  330-972-5505 Fax
321-4630@uh.edu
Scholars, please PRINT the following Information:

Student Name ____________________________

STEM Staff Avis Brown Pree Djangrds

Zips Email ________________@zips.uakron.edu

Student ID # ____________________________ Phone ____________________________

Course Name Data Base Management for Info Systems

Course Number 0500: 324 Section Number 801

Instructor Name Liping Liu

Fall 2017

Weeks: DUE: Friday, June 30th DUE: Friday, July 7th DUE: Friday, August 4th

Faculty Member: The student listed above is required to submit academic progress reports as a COF STEM Scholar by the corresponding due date. Your assistance in providing this information is appreciated.

Grade Average to Date V Grade is “A” _______ Grade is “D” _______

Grade is “B” _______ Grade is “F” _______

Grade is “C” _______ No Grades _______

Test Grades _______

Quiz Grades _______

Paper Grades _______

Attendance & Timeliness Good _______

Fair _______ Poor _______

Attitude Good _______

Fair _______ Poor _______

Overall Effort Good _______

Fair _______ Poor _______

Comments Excellent student to have _______

Instructor’s Signature ________________ Date 10/6/17

It is the Scholar’s responsibility to distribute, perfect and return this form to the COFSP Office in Simmons 301.
Peer Tutor Mentor

- Individual Model; One-on-One/ Group
- All freshmen are required to meet with TM
- Purpose
Supplemental Instruction

• One-on-One
• Small group
• Centralized tutoring
• Monitoring/Tracking
• Scholars and Students may be assigned to attend study tables to improve study habits

• Data:
  • 6,050 students entered the COF office in the fall 2017
  • We held 30 review sessions with 14 taking place the week before finals
  • 3,379 students entered the COF office in the spring 2018
Socio-Cultural Events

• 1-2 Mandatory Events
• 2-4 Optional Events
  • Choose between 5-12 events offered
• Events already happening on campus
  • Speakers
  • Movies
  • Athletic Events
  • Developmental workshops

• Purpose
Office Environment

- Open Environment
- The “Brand”
  - Scholar gear
  - Staff apparel
- Intrusive support
- Open door policy
- Holistic support
  - Additional barriers to academic success
  - Life coaching
Outcomes

• Community
• Academic Success
• Student Retention and Graduation
Questions
Choose Ohio First Scholarship Program

Youngstown State University
08-09/16-66/16-77
YSU-COF Background & Motivation

• YSU-COF & Workforce Development
• Program Priorities
• Program Components
• Proven Success
YSU-COF Workforce Development

- STEMM related companies/industries—career positions often set up by co-ops/internships set up by mandatory COF research projects
- Advanced/digital manufacturing (including additive/subtractive)
- Biohealth/biomedical/bioengineering
- STEMM education (secondary math, secondary science)
- YSU-BaccMed (premier integrated pre-med with primary care focus)
- Actuarial science / mathematical finance related companies
- Graduate school /academia across STEMM, including placements often set up by mandatory COF research projects
YSU-COF Program Priorities

• **Predictors**
  - Predicted growth in STEMM fields but lack of qualified workforce, state-wide and in NE Ohio
  - Mathematics preparation most important enabler or impediment to success in STEMM disciplines

• **Priorities**
  - Recruitment of mathematically qualified students to STEM majors/programs
  - Recruitment/maths preparation of students from historically underrepresented populations in STEM
  - Timely progress/graduation of STEM majors
    (defines “mathematically qualified” above)
  - All YSU majors in STEMM, but with emphases on:
    • Advanced/digital manufacturing (additive & subtractive)
    • Biohealth/biomedical/bioengineering majors
    • STEMM education (secondary maths & science education)
    • YSU-BaccMed (pre-med/med program, primary care focus)
    • Actuarial science & financial mathematics
<table>
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<th>Science</th>
<th>Engineering</th>
<th>Mathematics</th>
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<tbody>
<tr>
<td>Environmental Science</td>
<td>Engineering</td>
<td>Actuarial Science &amp; Financial Mathematics</td>
</tr>
<tr>
<td>Physics &amp; Astronomy</td>
<td>Industrial Systems Engineering</td>
<td></td>
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<tr>
<td>Integrated Education- Science</td>
<td>Chemical Engineering</td>
<td></td>
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<tr>
<td>Chemistry</td>
<td>Manufacturing Engineering</td>
<td></td>
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<tr>
<td>Geology</td>
<td>Civil Engineering</td>
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<td>Civil Engineering Technology</td>
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<td>Electrical and Computer Engineering</td>
<td>Electrical Engineering Technology</td>
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<tr>
<td>Mechanical Engineering</td>
<td>Mechanical Engineering Technology</td>
<td></td>
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<tr>
<td>Computer Science</td>
<td>Information Technology</td>
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</tr>
<tr>
<td>Computer Information Systems</td>
<td>Integrated Education—Maths</td>
<td></td>
</tr>
</tbody>
</table>
YSU-COF Program Components: Partnerships

- **Secondary Education Partners** 32 high poverty school districts—urban, technical centers, diocesan schools, rural, STEM academies
- **Community College Partners** CCC, EGCC
- **Higher Education Partners** CWRU, CSU, KSU, NEOMED + NEOMED consortium (UA, BGSU, BWU, CSU, HC, KSU), UT, UC
- **Industrial Partners** America Makes, AST^2, HS, Humtown, Mercy Health, One Health Ohio, Vallourec-USA, Western, Nationwide, Ohio National, Anthem
YSU-COF Program
Components: Pipeline & On Campus

• Free Summer Alg. II-to-PreCalc Bridge Program
  Targeting secondary partner students, month long, immersive

• Well-Defined Admissions and Funding Priorities
  Targeting appropriately math prepared students
  from STEM-underrepresented and medically underserved populations

• Scholarship/Contract Obligations
  Including 3.00 GPA + timely progress in STEM major + following bullets

• Monthly Cohort Meetings
  Mandatory: 10/year; 5/semester

• Research Team Projects/Presentations
  Mandatory: use research faculty mentors + higher ed. / industrial partners

• Academic Monitoring and Support
  Mandatory, including free private tutors on case-by-case basis
• Free Summer Alg. II-to-PreCalc Bridge Program
  Targeting secondary partner students: high poverty rural/urban districts + financially disadvantaged

• Immersive  On campus 8:00 am–Noon, 5 days/week, 4 weeks + 4 hours of homework/day

• Mix of Learning Styles  Lecture-listen, inquiry-based, individual projects, team projects, course portfolio

• Bridge Design  Originally designed by 2 partner H.S. faculty + 3 University faculty, including the pre-testing/post-testing instruments

• Bridge Delivery  Partner H.S. faculty, in consultation with University faculty

• Bridge Costs  Free: instructional/texts/materials costs borne by YSU-COF match account
YSU-COF Program Components: Mandatory Research Teams

- **Mandatory Research Team Projects**  YSU-COF students on research teams mentored by research faculty mentors + higher ed. / industrial partners
- **Period of Research**  November through early April, including winter break and weekends
- **Mandatory Presentations**  Two peer-reviewed conferences and one recruiting event: YSU-QUEST and NE Ohio COF Student Research Conference + College of STEM ShowCase (YSU), respectively
- **Frequent Updates**  Cohort meetings in late Fall / early Spring used in part for required project updates
- **Assessment Surveys**  Each project team mentor/member surveyed as to each team member’s participation
- **Project Expenses**  Costs of research, research poster, travel borne by YSU-COF match account
Proven YSU-COF Successes

- Summer Bridge Pre-Test and Post-Test scores
- Student Awards/Recognitions
- Graduation Rates
- Recruitment and Retention
- Connections to Co-ops, Internships, REUs
Student Awards/Recognitions

Annual Spring NE Ohio COF Student Research Conference
YSU projects often receive a significant number of "Top Project" awards—blue color in pie charts on right

QUEST (YSU Research Forum)

• 2014—Best STEM Undergraduate
• 2015—Best STEM Undergraduate Project and Best Overall Undergraduate project
• 2016—Best STEM Undergraduate Project, Best Overall Undergraduate project, OAS Research Award
• 2017 & 2018—Best STEM Undergraduate Project

Other Honors

• YSU COF-sponsored research projects have been recognized at regional IEEE Student Activities conference
• YSU COF-sponsored research is most-cited article in Elsevier's Additive Manufacturing on-line journal; other peer-reviewed papers
• Several COF-sponsored projects lay the groundwork for patent applications
• COF research used in a featured article in New Scientist
• Co-ops/internships/REUs/graduate admissions across YSU-COF supported majors/programs
YSU-COF

Student Outcomes and Data

161 Scholars in Cohorts 2008–2013: Overall
- 109 (67.7%) have earned a degree in a STEM field
- 14 (8.6%) earned non-STEM degrees
- 14 (8.6%) are still enrolled

251 Scholars in Cohorts 2008–2016: Female Enrollment
- Women recruited: 84 of 251 total scholars (33.4%)
- Overall STEM: 30%

251 Scholars in Cohorts 2008–2016: Minority Enrollment
- Hispanic: 15 of 251 (5.9%)
  - Overall STEM: 2.3%
- Asian: 11 of 251 (4.3%)
  - Overall STEM: 1.9%
- Black/African American: 11 of 251 (4.3%)
  - Overall STEM: 3.4%

*overall STEM data from Spring 2017 Dean’s Report
<table>
<thead>
<tr>
<th>College of STEM Retention</th>
<th>YSU-COF Retention</th>
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<tbody>
<tr>
<td>F’14 to F’15: 66%</td>
<td>F’14 to F’15: 85%</td>
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<tr>
<td>F’15 to F’16: 66%</td>
<td>F’15 to F’16: 90%</td>
</tr>
<tr>
<td>F’16 to F’17: 68%</td>
<td>F’16 to F’17: 88%</td>
</tr>
<tr>
<td>F’17 to F’18: N/A</td>
<td>F’17 to F’18: 88%</td>
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</tbody>
</table>
YSU-COF
Student Outcomes and Data

YSU Graduation Rates

• YSU Overall for Cohort Entering 2010
  • Male—30%
  • Female—33%
  • Hispanic—14%
  • Black/African American—9%
  • Asian—58%
  • Pell Grant Recipients—20.51%

• Choose Ohio First Recipients (2008-2011 entering cohorts)
  • Male—66 of 81 (81.4%)
    • 59 received at least two years of support, 56 of which graduated (94.9%)
  • Female—20 of 24 (83.3%)
    • 16 received at least two years of support, 15 of which graduated (93.7%)
  • Hispanic—5 of 6 (83.3%)
    • 5 received at least two years of support, all which graduated (100%)
  • Black/African American—2 of 4 (50%)
    • 2 received at least two years of support, both of which
YSU-COF Student Outcomes and Data

Incoming Metrics
- COF Incoming GPA average: 3.72
  - Range: 2.63–4.00
- COF ACT Composite Average: 26
  - Range: 18–33
- COF ACT Math Average: 27
  - Range: 18–36

Graduation Metrics (as of F’17)
- COF Graduating GPA average: 3.47
- 122 graduates to date
  - 34 summa cum laude
  - 16 magna cum laude
  - 19 cum laude
- Average time to graduate: 4.37 years (4.33 for those with ≥ 2 years support)
Discussion & Questions
Muskingum University COF Program

Resources and Student Support

Paul Szalay

Choose Ohio First Program
Networking Meeting
May 18, 2018
COF Program History

- **Current COF Program**
  - Choose Ohio First Scholarship Program (COFS) - Growing STEMM Education in Appalachian Ohio
  - Partner Institution: Zane State College

- **Previously Supported COF Programs**
  - Choose Ohio First Scholarship Program (COFS) - Ohio House of Science and Engineering: Success in STEMM through Collaboration – Joint proposal with The Ohio State University and the University of Cincinnati
    - Funding Period: July 1, 2008 – June 30, 2017
  - Choose Appalachian Teaching Program (CAT) – Building a Community of Mathematics and Science Teachers for Southeastern Ohio
    - Joint proposal with Ohio University, Shawnee State, Marietta College, Rio Grande University
    - Funding Period: July 1, 2009 – June 30, 2017
Muskingum University COF Leadership Team

- **Paul Szalay**, Science Division Chair and Professor of Chemistry
  - MU COF Program Director
- **Rae White**, Professor of Education and Director of the Educator Preparation Unit
  - STEMM Education COF Recipients
- **Cindy Wilkins**, Professor of Nursing and Director of the Nursing Program
  - Traditional and RN-to-BSN COF Recipients
- **Joe Shaeffer**, Assistant Professor of Nursing
  - RN-to-BSN COF Recipients
- **Jan Winland**, Director of Graduation and Continuing Studies and Coordinator of Health Related Programs
  - Muskingum Adult Program (MAP) Health Program COF Recipients
- **Amber Gump**, Director of Student Financial Services
Muskingum University Administrative Oversight and Support

- Nancy Evangelista, Provost
- Mark Sanford, Vice President of Graduate and Continuing Studies
- Steven Soba, Vice President of Enrollment and Marketing
- Beth DaLonzo, Senior Director of Admission
- Dan Wilson, Director of Institutional Research and University Registrar
Student Populations Served

- **Traditional Undergraduate Students**
  - Campus residents
  - Off-campus residents
  - Commute from home

- **Non-traditional Adult Students**
  - Commute from home
## Educational and Economic Disadvantages of the Regional Population

Educational attainment level of people aged 25 years or older for Muskingum and all adjacent Appalachian counties

<table>
<thead>
<tr>
<th>County</th>
<th>No School or Less than HS</th>
<th>High School or GED</th>
<th>Assoc. Degree or Some College</th>
<th>Bachelor’s Deg. or Higher</th>
<th>STEMM Bach. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coshocton</td>
<td>15.9%</td>
<td>48.9%</td>
<td>23.1%</td>
<td>12.1%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Guernsey</td>
<td>14.8%</td>
<td>43.4%</td>
<td>28.6%</td>
<td>13.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Morgan</td>
<td>13.5%</td>
<td>46.9%</td>
<td>28.9%</td>
<td>10.7%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Muskingum</td>
<td>13.4%</td>
<td>44.4%</td>
<td>27.7%</td>
<td>14.6%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Noble</td>
<td>18.9%</td>
<td>51.8%</td>
<td>19.5%</td>
<td>9.5%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Perry</td>
<td>16.0%</td>
<td>45.5%</td>
<td>27.4%</td>
<td>11.0%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Average</td>
<td>15.4%</td>
<td>46.8%</td>
<td>25.9%</td>
<td>11.8%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Educational and Economic Disadvantages of the Regional Population

Median household income from 2009-2013 (US Dollars) and state rank (Out of 88) for Muskingum and all adjacent Appalachian Ohio counties

<table>
<thead>
<tr>
<th>County</th>
<th>Median Household Income</th>
<th>Rank within the state of Ohio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coshocton</td>
<td>$41,274</td>
<td>68th</td>
</tr>
<tr>
<td>Guernsey</td>
<td>$38,841</td>
<td>79th</td>
</tr>
<tr>
<td>Morgan</td>
<td>$37,865</td>
<td>81st</td>
</tr>
<tr>
<td>Muskingum</td>
<td>$40,524</td>
<td>73rd</td>
</tr>
<tr>
<td>Noble</td>
<td>$38,290</td>
<td>80th</td>
</tr>
<tr>
<td>Perry</td>
<td>$41,446</td>
<td>67th</td>
</tr>
</tbody>
</table>

Approved CIP Codes for our Current COF Program

- 030104 – Environmental Science
- 110104 – Informatics
- 110701 – Computer Science
- 140101 – Engineering, General
- 260101 – Biology/Biological Sciences, General
- 270101 – Mathematics, General
- 400501 – Chemistry, General
- 400601 – Geology/Earth Science, General
- 400801 – Physics, General
- 513801 – Registered Nursing/Registered Nurse
Approved CIP Codes for our Current COF Program

- 510000 – Health Services/Allied Health/Health Sciences, General
- 511004 – Clinical/Medical Laboratory Technician
- 511099 – Clinical/Medical Laboratory Science and Allied Professions, Other
- 512306 – Occupational Therapy/Therapist
- 150201 – Civil Engineering Technology/Technician
- 150399 – Electrical and Electronic Engineering Technologies/Technicians, Other
- 150499 – Electromechanical and Instrumentation and Maintenance Technologies/Technician
- 150501 – Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician
- 150599 – Environmental Control Technologies/Technician
- 150805 – Mechanical Engineering/Mechanical Technology/Technician
- 510803 – Occupational Therapy Assistant
- 510806 – Physical Therapy Technician/Assistant
- 510907 – Medical Radiologic Technology/Science – Radiation Therapist
The COF program has two dedicated program directors to advise the traditional undergraduate students, two for advising the non-traditional students, and one that offers advising to both populations.

In addition to the COF program advisors, each COF student has at least one dedicated academic advisor.

Amber Gump, the Director of Student Financial Services, and several professional staff members in Student Financial Services are dedicated to assisting COF students in financial matters.

Muskingum University senior administrative oversight is in place for our COF program.
Traditional COF Student Supports - Summary

- Academic Advising
- COF Programmatic and Financial Advising
- Scholar support plans as needed
- The Study Center – Peer Tutoring
- Research and Internship Programming
- Recognition Programming
- The Science Mentoring Program
- First Year Seminar
Traditional COF Student Supports – Science Mentoring Program
Traditional COF Student Supports – First Year Seminar

- First Year Seminar Overview
  - Faculty Instructor and COF Student Mentors
  - Cohort Unity
  - Campus Services - Career Services, Computer & Network Services, etc..
  - The Library and a Personal Librarian
  - Academic Advising
  - High School to Higher Education Transitional Advising
  - Internships and Career Preparation Advising
  - Science Specific Programming
  - New Opportunities Coming – First Year Experience
Traditional COF Student Supports – First Year Seminar

- **Science specific programming**
  - Publishing and the peer review process
  - The elements of a peer reviewed scientific paper
  - Mini-research project
    - Oral Presentation with Visual Aids on a Pre-approved Topic
    - Personal Librarian
  - Outreach programming planning and implementation
  - Upper class COF student mentoring
  - Upper class COF student research presentations
COF Programming: Non-Traditional Students

- Academic Advising
- COF Programmatic and Financial Advising
- Scholar support plans as needed
- Educational Programs in STEMM Need Areas
- Scholarship Support Supplemental Benefits
- Outreach and Educational Opportunity Programming
- Regional Workforce Development
Non-Traditional COF Students

- Workforce Development – Nursing in Ohio
  - In 2010, the Institute of Medicine recommended that by 2020 80% of registered nurses have a BSN degree. Multiple studies have shown that mortality rates and failure to rescue rates as well as other patient care quality indicators directly correlate with the percentage of BSN nurses in a health system/hospital.
  - According to the 2015 Ohio Board of Nursing report 48% of registered nurses hold a baccalaureate or higher degree in nursing
    - 36% have the BSN
    - 11% have the MSN
    - 0.7% have a Ph.D., DNP, or other nursing doctoral degree
  - 14% are currently enrolled in a BSN program
  - 33% report that they plan to pursue a BSN or higher degree
  - If an ADN graduate is hired by a health system they are typically given 2-5 years to complete a BSN so providing that educational pathway is critical
Thank You from the Muskingum University COF Team to The Ohio Department of Higher Education COF Leadership Team Fellow COF Campus Program Representatives
Choose Ohio First
Resources / Support
History of COF @ University of Findlay

• Three Awards

• First Award – Education – In conjunction with Bowling Green State University

• Second Award – Biology, Computer Science, Education, Pharmacy

• Third Award – Computer Science, Education, Environmental Safety and Occupational Health
History of COF @ University of Findlay

• College of Education

• 29 out 31 (94%) undergraduate students who completed are teaching in Ohio. Not included in the count 9 students that changed majors or withdrew from UF. 2 are not teaching.

• 25 out of 37 (68%) of post-baccalaureate students are teaching in Ohio. One taught out of state then went into a PhD program at the University of Buffalo in New York. 5 are teaching out of state.

• Scholars were involved with many activities on campus and completed research with some Biology professors during the program.
College of Education Activities

• STEM in the Park
• NWO Symposium on Science, Technology, Engineering and Mathematics Teaching
• Lecture by Dr. Christopher Emdin, Associate Professor in the Department of Mathematics, Science and Technology at Teachers College, Columbia University
• Assisted with Outdoor Camp for all 7th graders in Findlay City and Bluffton schools
• Presented at SSC Day at the University
College of Education Initiatives

• Partner with over 70 school districts including rural, urban and high need school districts

• In July of 2017 the COE started a Center for Educational Partnerships and Innovation that provides professional development opportunities for educators

• The COE is in the second year of a one-to-one iPad initiative

• The COE works closely with Workforce Development/Raise the Bar on Leader in Me and Literacy initiatives

• The COE has also partnered with the University of Toledo Career Technical Teacher Preparation Program and opened up trainings for COF scholars with *High Schools/Middle Schools that Work* in Northwest Ohio
College of Education Student Testimonial

I will forever be grateful for receiving the Choose Ohio First funding. It allowed me to continue my education at a highly respected university where I was able to learn all the necessary skills and education that will allow me to teach the future generations. I will be graduating on time in May 2018 because I received this scholarship. It allowed me to focus directly on my classes without having the financial burden that is associated with a four year degree. I can honestly say that without this scholarship many other factors may have derailed me from achieving my goal of graduating this May. I am very appreciative of the opportunity that I was given and very thankful for the funding.

Connor Sullivan ‘18
History of COF @ University of Findlay

• College of Pharmacy
• Dating back to fall 2014
• 43 students
• Students have been involved in Research and Presentations-local, state and national levels, summer camps to recruit students to Ohio colleges and universities, community service, presentations to local schools regarding their major, this university, and community health issues at large activities
• 100% STAYED IN OHIO
• One 1 student dropping program
History of COF @ University of Findlay

- Biology

Activities: Outreach programs such as STEM in the Park and Hancock County Farm Tour that have impacted over 5,000 families in NW Ohio, Rolling Thunder STEM Outreach

- All students have entered into Graduate or Professional school
  - Medical School: 1
  - Veterinary School: 15
  - Physician Assistant: 3
  - Masters of Public Health: 1
  - Unknown: 1
History of COF @ University of Findlay

• Computer Science

• CSCI COF Program Summary
  • 30 total participants since 2012
    • 24 graduated
      • 17 are employed in Ohio (11 at Marathon Petroleum Corporation, Findlay, OH)
      • 5 left Ohio for employment (one joined the military)
      • 1 employment unknown
      • 1 full-time graduate student in our MSASA Program
      • 3 have earned MBA’s and 4 are enrolled in technical masters programs
    • 6 are continuing scholars
    • 4 were dropped from program
    • 4 most recent graduates
      • 1 employed in Ohio
      • 1 employed out of state
      • 2 employment unknown
History of COF @ University of Findlay

• Activities
  • IA Forum and SSC
  • Participation in Programming Team Competition at CCSC Regional Conference
  • Student Undergraduate Research Projects
  • Lego Robot Project
    • Taught faculty members how to program Lego Robots
  • Hour of Code Event with Marathon IT Explorers
    • Lego Robot Maze
  • Scholar’s Forum
  • Provided an Hour of Code session with Android Programming for Marathon IT Explorers
  • Taught programming to gifted middle school students
  • Attendance at Tech Toledo Holiday Mixer
    • Largest gathering of IT Professionals in NW Ohio
Current COF Program

- 11 first-year students
- 3 programs with active students / 1 program inactive
  - Education – 3 students
  - Computer Science – 5 students
  - Environmental, Safety, and Occupational Health – 3 students
  - Logistics - inactive
Current COF Program

• CSCI 5 new freshman

• Mentors:
  • External: CSCI Advisory Board Members & COF Alums
  • Internal: Faculty Advisors & COF Advisor

• Activities:
  • COF Mixer attendance
  • SSC Presentation on COF Experiences
  • Attendance at IA Forum
  • Attendance at Invited Technology Speakers
  • Development of an Hour of Code for Marathon IT Explorers
    • Exploring Virtual Reality topic
  • Attendance at Tech Toledo Holiday Mixer
Current COF Program

• ESOH
  • Participate in two of the following three institutional level events:
    • Attend the Choose Ohio First Reception/Mixer at the President of the University, Dr. Fell’s House
    • Present at the SSC Day about professional development you have received through this program.
    • Participate on the ESOH Freshmen team for the Run the World 5K on Thursday, September 7th at 6:30pm.
  • Participate in UF-assigned Mentor program and work with your cooperating instructor during experiential courses
    • Meet with Dr. Murphy to discuss your professional development activities and goals
      • Mentors are alumni and non-alumni practitioners
Current COF Program

- Participate in three of the following five ESOH activities (must attend one of the first two on the list and then two others):
  - Attend the Student Sustainability Leaders Conference, September 23, 2017 at the University of Dayton, Hanley Sustainability Institute
  - Attend and help out at the STEM in the Park on September 23, 2017.
  - Attend the Northern Ohio ASSE Dinner Meeting on September 25th at Martino’s International Café in Vermilion, Ohio. Guest speaker is Marc Kolanz of Materion Corporation. Transportation will be provided,
  - Attend 80% of the OESHO/ASSE organization meetings during the academic year.
  - Attend the Fall College of Science Job fair and speak with each of the companies/agencies hiring from the ESOH program. Written verification required.
Current COF Program

• ESOH
  • Corporate Partners
    • Marathon Petroleum
    • BP Husky Refinery Toledo
    • PepsiCo
    • Pepsi Bottling North America
    • G2 Revolution
    • Watterson Environmental, Inc.
    • Alvada Construction/Kirk Brothers Construction (same owners)
Current COF Program

• Retention and Academic Support
  • Starfish
Current COF Program

• Retention and Academic Support
  • Starfish
Current COF Program

• Retention and Academic Support
  • Starfish

• Intrusive Advising
  • Academic Advisor
  • Oiler Success Center

Recent Tracking Item Summary: Tuesday, April 24, 2018

7 flags included in this summary.

Subject: To-Do: COF-Departmental Events

William Johnston has added a new To-Do to your student folder. Below you will find the details of this task. If you have additional questions, please contact your advisor or go to Starfish to make an appointment.

1. To-Do: COF-Departmental Events

We care about your success!

Sincerely,

The Student Success Team
I wanted to let you both know that I have accepted an offer from Crown Equipment Corporation in New Bremen, Ohio as an Embedded Software Engineer. If you are unfamiliar with the company, they manufacture fork lifts and provide warehouse solutions. I'm not sure exactly which team I'll be on yet, but I will be writing and testing software that goes into the fork lifts. Also, I will actually be a part of the engineering department, rather than IT.

Thank you both for all of your help along the way. Choosing UF and the computer science major was the best decision I could've made. I've had multiple offers and can find opportunities in so many different areas within IT and engineering. I am so appreciative of the faculty and staff and everyone else that made both my personal and learning experiences so fantastic at UF.

Thanks again,
Questions?
Choose Ohio First STEM Scholars Program
Baldwin Wallace University
Dr. Jim McCargar & Katie Adkins M.Ed.
Baldwin Wallace University

BW undergraduates (approximate figures from Fall 2017 data)

• 3,208 undergraduates
• 54% female; 46% male
• 21% diversity
• 15% first generation
• 34% first-year cohort Pell-eligible
• 26% incoming first-year indicated STEM path
Associate to Bachelors Transfer Model

**A2BW**

- Streamlines completion bachelor's degree
- Guaranteed junior standing with core curriculum complete from associate degree
- Any regionally accredited college or university recognizes all the credit earned in associate degree
- Relationship building with LCCC and Tri-C
- A2BW Pathways - Curricular guides for Tri-C
Associate to Bachelors Transfer Model

Relationship Building

Honors Program Articulation

On-Site Recruiting at Community Colleges
- Fall 2017 Recruiting with Admission Team
- Spring 2018 Faculty Problem Solving; Honors Symposium
STEMM at Tri-C® presents:

Ed Meyer, Ph.D.
Chair, Dept. of Physics
Baldwin Wallace University
and
Founder, Gedanken Institute for Problem-Solving

"Becoming a Contributing Citizen"

Never before in the history of humankind have the lives of people in one generation been so different from those of their grandparents, and never before has the percentage of citizens who fail to function as vital, contributing members of society been higher. What is the cause of this shift? What are the skills needed to live a purposeful life as a contributing citizen? In his interactive talk, Dr. Meyer will attempt to answer both these questions, supporting his theory with compelling evidence and examples.

Wednesday, February 28 - 2:30pm
WSS 04 A (lower level of the Galleria)
Tri-C Western Campus
11000 Pleasant Valley Road, Parma, OH 44130
http://www.tri-c.edu/campusas-and-locations/western-campus/maps/westmap.jpg

Free and open to the public
Complimentary pizza and soft drinks provided
Approved for one (1) Honors Program Activity Point
## 2017-2018 Cohort

### Choose Ohio First – Transfer participants (2017-18)

<table>
<thead>
<tr>
<th>First</th>
<th>Transfer</th>
<th>Major</th>
<th>City</th>
<th>Race/ethnicity</th>
<th>Adult (23+)</th>
<th>First-Gen</th>
<th>Pell-eligible</th>
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<td>Neuroscience</td>
<td>Wellington</td>
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<td>Traditional</td>
<td>Not First-Gen</td>
<td>N</td>
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<tr>
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<td>LCCC</td>
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<td>Lorain</td>
<td>Hispanic/Latinx</td>
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<td>Y</td>
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<tr>
<td>Juley</td>
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<td>Hispanic/Latinx</td>
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<td>Adult</td>
<td>First-Gen</td>
<td>Y</td>
</tr>
</tbody>
</table>
Understanding the Transfer Process

- **Address Early Concerns**: credit transfer & campus resources, adjustment to new social and academic environments

- **Transfer Shock**: Temporary decline in GPA during the initial transition period to a new institution
Early Support for Transfer Students

Before Admitted
- Communicate through phone/email as prospective student
- Invitation to events and coaching before applying to program

Summer Transfer Orientation
- Before semester begins - Financial Aid & STEM Scholars Program

Transfer STEM Scholars Orientation
- Introduce academic and support service resources
- Establish academic, professional, and personal goals
Mentoring for Transfer Students

Success Coaching
- 2 coaching sessions a semester in their first year
- Encourage involvement (research, service, leadership)

Faculty Mentoring
- Resources on building relationships with faculty

Peer Mentoring
- Connect to junior and senior STEM Scholars through COF program events and STEM courses
Senior Exit Survey

Data Collection Source
• Electronic Survey Tool using Choose Ohio First Annual Report for template
• Students accustomed to spring progress reporting

Timeframe
• Open window in April – close before finals (2 weeks to complete)
• Reminders with links to students who have **NOT** completed
Senior Exit Survey - NEW

Senior Focus Groups
• Not mandatory
• Breakfast/lunch for program feedback

Follow Up
• Communicate with those who did not report
• Collaborate with Career Services on Student Outcome Survey
• Connect with LinkedIn Group
Questions?

• What questions may we answer for you today?
Choose Ohio First:
Recruiting, Retention/Advising
2+2 transfer partnerships

Laura Shady, MS Academic Advisor, STEM Program Coordinator
lshady@csc.edu

Merideth Sellars, MS, Associate Professor, COF PI
msellars@csc.edu

May 18, 2018
Recruitment

• College Admissions Events/Visit Days
• STEM Community Outreach Events
• Advisory Board Committees
• High School Math and Science Teachers
• Current FSO Scholars
Recruitment

- Website
- Social media
- Targeted email to admitted students
Marketing

• Brochures
• One page facts about “STEM”
• Customized folders
Marketing

- Brochures
- One page facts about “STEM”
- Customized folders
Retention
STEM Summer Bridge Program

• Establish peer support networks
• Develop time management and study skills
• Identify campus resources
• Provide remediation
Retention
STEM Club

- Explore STEM career pathways
- Provide career networking opportunities
- Community outreach
- STEM related field trips
Retention

STEM Club

Explore STEM career pathways
Provide career networking opportunities
Community outreach
STEM related field trips
Advising

- Dedicated academic advisor
- Customized plan of study
- Transfer planning
2 + 2 Partnerships
Future Scientists of Ohio
= COF Partnership with OSU
Thanks.
Science and Math Education in ACTION

Daniel J. Brahier, PhD
Bowling Green State University
Friday, May 18, 2018
Internet: bgsu.edu/action
Science and Math Education in ACTION

- Program began in 2009
- Targeted at Middle Childhood and Secondary Mathematics and/or Science Education majors
- Approximately 25 students per year (in cohorts)
Participant Selection

• Minimum Requirements: ACT ≥ 23, GPA ≥ 3.00
• Application that includes essays, listing of activities, recommendation letter
• Applications are rated and ranked numerically
• Interviews – for top candidates (by FaceTime)
• Final Decisions based on online application and interview
• Cohort 10: 3.99 GPA, 27 ACT
Program Components

Year Zero: Summer Bridge Program
First Year: Mathematics Bench Research
  Research Experience
Second Year: Community Internship
  Community Experience
Third Year: Research Proposals
Fourth Year: Action Research
Program Components

- Summer Bridge (3-4 weeks, before freshman year)
- Freshman Research Project (pure math or science research in teams)
- Sophomore Practicum Internship (community)
- Junior/Senior Capstone Project (action research)
- Other features, such as presentations, professional development, living/learning community, field trips, and social activities
Published 8 times/year (Sept, Oct, Nov, Dec/Jan, Feb, Mar, Apr, May)
Sent to nearly 600 (students, families, alumni, administrators, faculty, “friends” of ACTION
Director’s column
Updates on each cohort
Spotlights on individual students
Birthdays
Field Trips
Field Trips - Examples

- C.O.P.E. Course at Camp Miakonda - team building low-ropes course (optional high-ropes in academic year)
- Toledo Mud Hens Baseball Game - follow up to hands-on statistics session
- Trapped Toledo - team experience to solve clues to “break out” of room
- Toledo Zoo - overnight adventure during Summer Bridge and team building high ropes course during academic year
- Bowling - fun social event during Summer Bridge
- Imagination Station - hands-on science center
Living/Learning Community
Living Community

- **FIRST YEAR SCHOLARS**
  - On average, more than half of our incoming freshman scholars choose to live in the ACTION Theme Community each year.
  - Out of 28 Cohort 9 freshman scholars, 20 lived on the floor (~75%) during the 2017-18 academic year.

- **RETURNING SCHOLARS**
  - Each year, nearly 1/3 of returning scholars elect to remain on the ACTION floor.
  - Several scholars have lived in the ACTION Theme Community for 4 years.
  - For the upcoming 2018-19 academic year, 60% of the rising sophomores plan to stay on the floor (15/25).
Benefits of ACTION Theme Community

• Deepen friendships though the tight-knit community
• Study groups and collaboration with other highly ambitious and motivated students
• Interaction with older students for guidance and mentorship
• Residence hall in close proximity to the buildings where most of the science and mathematics courses are held
"I look forward to my first year as a teacher. I wrote lesson plans, attended in-service workshops, and decorated my classroom. Preparation is half the victory. It's the other half that concerns me."
Science and Math Education in ACTION

Daniel J. Brahier, PhD
Bowling Green State University
Friday, May 18, 2018
Thank you for joining!
Networking Meeting
Additional Notes from Discussion and Questions
Friday, May 18, 2018

University of Akron Presentation:

- Two COF recruiters – targeting high school students in their junior and senior years
  - Individual Success Plan for students – If students check one of several boxes (Pell Grant Recipient, First Generation College Student, English Learner, Veteran, etc.), it alerts the COF team that these could serve as potential sources of difficulty for students. UA uses this information to provide needed support to students.
  - Summer Bridge program funding: Students/families pay for books and food, but the university funds the rest of the program.
    - This year 47 students enrolled in the Bridge Program
    - Not all COF Scholars are required to enroll in the Summer Bridge Program
    - Classes Offered: English Comp., Math, Intro to Public Speaking, Human Diversity

Youngstown State University Presentation:

- “Math preparation is the most important enabler or impediment to success in STEM disciplines.” – Focus on “pre-calculus readiness” and “calculus readiness.”
- Biggest gap between Algebra II and Pre-Calculus so summer bridge addresses the gap through curriculum
- Summer Bridge Programs is for High School students – The students are responsible for their own transportation
  - Students must have taken Algebra II and received a C or above to get into the program (usually sophomores, but could be at any grade level).
- COF scholars sign a COF contract
- 25 faculty members who mentor research teams

Muskingum University Presentation:

- Science Mentoring Program consists of COF upperclassmen who are asked to be a part of the program – they do not apply. Their business cards are then placed in the science building to be selected by any students at the school – not just COF students
  - Training for student mentors: informal conversations and regular check-ins
  - Student mentors are not paid, but tutors are paid

University of Findlay Presentation:

- Strong business partnerships that they sought out by university: Corporate Mentors, Advisory Boards, Internships and Co-ops
- Corporate/Professional Mentorship program created discussion of the creation of COF Alumni Mentorship programs and maintaining COF Alumni connections by institution and statewide
Baldwin Wallace University Presentation:
- Senior Focus Groups for COF Scholars allow the program coordinators to ask open-ended questions and give the scholars a chance to have their voices heard.
  - Discussion of the focus groups possibly helping with COF alumni relations by allowing them to have their voices heard and forming a lasting connection with the program.

Columbus State Community College Presentation:
- Marketing materials for COF
  - Ask scholars how they found out about the scholarship – this information helped CSCC with marketing decisions
  - Had more applicants this year than any year before – believed to be directly impacted by COF updated marketing materials such as folders and brochures.
  - Community Colleges often have difficulty explaining who is eligible for the COF scholarship, so this information is broken down in marketing materials.
- Focus on different career paths because many students do not know the different career paths available to them in STEM.
- Students are interviewed and asked about their intentions before transferring to a 4-year institution (such as COF partner OSU). This information is used when tracking students.

Bowling Green State University Presentation:
- Publishes a quarterly newsletter of COF updates sent to 600 contacts including current scholars, community members, parents and alumni