

IFCC MATH MEETING

February 21, 2018

10:00am – 3:00pm

Central Georgia Technical College

Macon, GA

Welcome and Follow-Up

1. Benita Moore began with a welcome and call to order. Dr. Moore introduced Nathalie Dames, State Vice Chair, presiding. Dr. Moore also introduced Pam Warren and Nikki Stubbs from GVTC and VPAA Amy Holloway CGTC. The meeting agenda is on pages 7 - 9 at the end of the minutes.
2. Nathalie Dames began with a welcome and introduced participants by region.
3. A list of participants is on pages 12 – 13 at the end of the minutes.

Review of Minutes

1. Minutes from the 2017 IFCC Math Meeting were reviewed.
2. Recommendation to accept minutes, motion was approved.

TCSG Update

1. Changes in staff
 - a. TCSG Commissioner, Matt Arthur was appointed effective January 2, 2018
 - b. TCSG Deputy Commissioner, Martha Ann Todd was appointed effective January 2, 2018
 - c. TCSG Deputy Commissioner of Administrative Services, Linda Osborne Smith, includes Accounting, Budget, Info Technology, Procurement, Support Services, and System Development
 - d. TCSG Assistant Commissioner of Work Force Development, Joe Dan Banker
2. Articulation agreement for Math 1103
https://www.usg.edu/assets/academic_affairs_handbook/docs/Gen_Ed_TCSG_Transfer_Chart.pdf

Accuplacer

1. Validity testing supports that there is correlation between test scores and how students performed in class.
http://teched.tcsg.edu/all_forms/accuplacer_placement_validation_study.pdf Based on the study, the prediction for students scoring 57 on the Elementary Algebra section to earn a C or higher in College Algebra is between 55 – 60%. There is a new version of Accuplacer which means a new set of cut scores to consider. Currently there has been no validity testing for the College Algebra level.

2. Concern: Anecdotal data, students who score 57 on Elementary Algebra are not prepared for College Algebra.
3. Are colleges using Accuplacer to determine co-req placement and if so what are the cut scores being used?
 - a. Roughly half of the colleges use cut scores for placement into co-req.
 - b. The scores being used vary – a few options that were discussed are:
 - i. 41 – 56 = co-req
 - ii. 47 – 56 = co-req
 - iii. 52 – 56 = co-req
 - iv. Consideration being given to 57 – 67 = co-req
 - v. 100% co-req if learning support is needed
4. Carol Fuller provided this link as well: <https://secure-media.collegeboard.org/digitalServices/pdf/accuplacer/accuplacer-program-manual.pdf>

Learning Support Redesign/AMP

1. Fall 2017, USG invited TCSG to attend the USG Learning Support Academy. TCSG faculty and administrators were invited to attend and participate in the meeting. During the meeting USG provided a document outlining how they would implement co-req remediation. TCSG has created a similar draft “Co-Requisite Remediation Guidelines” (pages 10 – 11 at the end of the minutes). The draft has been reviewed by faculty, administrators, Dr. Hornsby, Martha Ann Todd, and will be reviewed by college presidents. The document is still a draft, but continues to allow flexibility for each institution to determine the method in which co-req is implemented.
2. How do students earn a grade in support, what assessments are being used for co-req classes?
 - a. Examples discussed:
 - i. No formal assessment in support, grade is the same as 1111 grade
 - ii. Assignments are graded in learning support and is 50% of grade, 1111 is 50% of grade
 - iii. Participation/Labs/HW/Tests for learning support in addition to 1111
 - b. It is a college decision how to grade students in learning support and what assessments to give.
3. How many credit hours are the learning support course(s) that?
 - a. TCSG allows colleges to choose 1, 2, or 3 credit hours for the support class
 - i. There are colleges that offer 3 hour support, 2 hour support, and 1 hour support
4. If a student withdraws from one are they required to withdraw from both?
 - a. This is a college decision. Some colleges commented that they are required to withdraw from both (roughly half). Other colleges allow students to withdraw from the 1111 and remain in support.

- b. Concern: For those who require that students drop both, the student is unable to make any progress in math for that term.
- 5. What courses do colleges have co-req options for?
 - a. 15/22 colleges have a co-req option for Math 1012
 - b. 7/22 colleges have a co-req option for Math 1103
 - c. 2/22 colleges have a co-req option for Math 1127
- 6. What options are being used for Math 1012 co-req?
 - a. 97/1012 with 1012 class the first hour, support the 2nd hour, support grade earned is 50% Math 1012 grade, 50% in class assignments
 - b. Tutoring lab for support
 - c. 0090/1012 mini-mester (0090 first 8 weeks, 1012 second 8 weeks)
 - d. It is a college decision to determine the best model for co-req as campuses and student population varies.
- 7. How are students being registered for co-req?
 - a. Courses can be linked or cross listed in Banner but that comes with pros/cons.
 - i. Banner session at AMP Conference March 19 – 21.
 - b. Manual registration
- 8. What are some suggestions for teaching College Algebra to remedial students?
 - a. Teach Chapter P as a stand-alone chapter as opposed to integration
 - b. After several sections quiz students in MML, a personalized review homework assignment is generated. For students who complete the homework assignment with 90% accuracy, they earn a 2nd attempt. (Could be used for tests too)
 - c. Noted that students do not do “optional”.

Review of Courses

- 1. Math 1011 – Roughly 3 colleges offer 1011
- 2. Math 1013 – Roughly 6 colleges offer 1013
- 3. Math 1015 – Roughly 2 colleges offer 1015
- 4. Math 1012 – All colleges offer 1012
 - a. What are colleges using for technical applications?
 - i. Word problems out of the book
 - ii. Culinary programs to collect example problems
 - iii. Allied Health example problems
 - iv. Program specific packets depending on field of study – word problems
 - v. Packet of word problems
 - vi. Purchasing a Home Project – Atlanta Tech
 - 1. Budget
 - 2. Find a Home
 - 3. Square footage, calculate cost etc
 - 4. Calculate mortgage payment
 - 5. Calculate how much they actually pay for the house

- 6. Rubric for assessment = 4 quiz grades
- vii. Activities in class to interact with each other
 - 1. Find sod/grass for a yard – area
 - 2. How much money would it cost?
- viii. Collaboration between students in course
- ix. Unit Cost project
 - 1. Find 2 products – same company different sizes
 - 2. Best buy type of activity
- x. Plan a BBQ
 - 1. Budget
 - 2. Meat/2veg
 - 3. Compare unit pricing for 2/3 different stores
- 5. Concern: Where should students be directed who need to take a diploma level class that is not offered at the institution?
 - a. GVTC has some diploma classes available
<https://gvtcapp.tcsg.edu/GVTC/General/Courses.aspx>
- 6. Math 1103 Concern – BSN still requires 1111 so advisement is key
- 7. No additional discussion specific to degree level courses

General Questions

1. How do others teach hybrid courses?
 - a. Flipped classroom
 - b. Reading
 - c. Watching videos (instructor made) – quiz on video
2. How do you handle academic integrity for online students?
 - a. Require students to work out problems for online tests, scan and submit in BlackBoard
 - b. Heavily weighted proctored exams
 - c. Required midterm on campus if grade is similar to online test grades they can take the final online, if the grades are inconsistent the student is required to take the final in a proctored environment as well.
 - d. Required to attend final exam if the overall grade prior to the final is 60%. The highest score the student can earn is a D
 - e. @ Columbus all exams are proctored – no online options for testing.
3. What are some proctoring solutions for students out of state/country/etc.?
 - a. Local libraries, other colleges, Sylva Learning Center
4. Which classes do colleges require a TI 83/84 calculator?
 - a. Calculus, Stats, Math Modeling, College Algebra
 - b. Some teach in a lab and have an emulator on the pc's
 - i. Program to view student screens to monitor online activity during exams

OER Expansion/Expectations

1. What OER resources or low cost resources are colleges using?
 - a. Open Stax for 1111
 - b. XYZ Homework – low cost homework option
 - c. MyOpenMath – some work for the instructor to do, College Algebra has lots of problems to choose from. Pre-Cal has fewer problems to choose from, some coding required
 - d. Noted that Open Stax texts can be downloaded and printed or purchased on Amazon.
2. If your college is using other OER resources, please send those to Benita via e-mail.
 - a. bmoore@tcsug.edu
 - b. Subject line should include course number and OER Resources
 - i. Example: Math 1111 OER Resources
3. Anecdotal data – students experience more success in Math 1012 with MyOpenMath and supplemental YouTube videos than with Pearson
4. How are colleges handling BlackBoard integration with OER resources?
 - a. It is a college decision on how many grades should be included in Blackboard.
 - b. Some enter by hand, some only enter the final grade.

ADA Compliance Q&A

Nikki Stubbs/Pam Warren

1. Recommended that content be pushed to BlackBoard due to accessibility requirements.
 - a. Check with 3rd party publishers to see what is offered in terms of accessibility and timeline.
 - b. Anything new created should be accessible
 - c. Ally is a new product in BB to determine accessibility
2. Products to use for math:
 - a. MathML and MathJax is used for Ally – content can be in BB and checked in BB
 - b. Microsoft Word Equation Editor is readable by MathML and MathJax
 - c. Handwritten notes – you must have a second way to get those notes to students who need an alternate version
 - d. Kurzweil – screen reader option <https://www.kurzweilededu.com/default.html>
 - a. Microsoft accessibility checker meets AA requirements
 - e. Equatio <https://equatio.texthelp.com>
3. There should be an accessibility statement in the syllabus
 - f. Accessibility and accommodations are separate
 - i. Accommodations are provided for 1-person accessibility is what should make it better for everyone
4. GVTC website has a list of resources available that TCSG uses/promotes
<http://portal.gvtc.org/Training-Resources/Documents>

Contact info: pwarren@tcsug.edu and nstubbs@tcsug.edu

Election of Officers

State Chair – Nathalie Dames majority vote

State Vice Chair – Steven Studdard

State Recorder – Jennifer Loudermilk

North Chair – Steven Riley

North Vice Chair – Casandra Parker

North Recorder – Marlene Haller

Central Chair – Chauncey Keeton majority vote

Central Vice Chair – Jean Fuller

Central Recorder – Irvin China

South Chair – Becky Pearson

South Vice Chair – Laura Keiser

South Recorder – Lynne Groover

Agenda
MATH IFCC Meeting
Wednesday, February 21, 2018
Central GA Technical College, Macon Campus (Quad A)
3300 Macon Tech Drive, Macon, GA 31206
10 am – 3 pm (Sign in begins at 9:30 am) - Working Lunch

- Call to order
- Introduction of Participants (VPAA Amy Holloway, CGTC)
- Review of minutes
- TCSG Update – Changes in staff and web page & **MATH 1103 articulation** (Benita Moore)
- ACCUPLACER Cut Scores
- Review of courses

Learning Support/Redesign

MATH 0090 & LS Math	Co-Requisite Model/LS Redesign Update <ul style="list-style-type: none"> • Guidelines (Draft) • Assessment for co-requisite class such as Math 0099 and Math 1111 • Share what is working and how you are getting it to work • How is MATH 0090 being used/working • Who has co-reqs for Math 1012, Math 1103, and Math 1127? Please share details. • Please provide suggestions for teaching College Algebra to Remedial Students • Textbooks and open sources used • ALP/AMP Pre-Conference, March 19, 2018 (before Student Success Academy) – see link below
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Diploma Courses

MATH 1011	Textbook/open sources used How many use; future of 1011?
MATH 1012	Textbook/open sources used What are colleges using for technical applications? What is working (share) How to optimize student grasp of topics (share)
MATH 1013	Textbook/open sources used
MATH 1015	Textbook/open sources used
MATH 1017	Textbook/open sources used

Degree Courses

MATH 1100	Textbook/open sources used
MATH 1101	Textbook/open sources used
MATH 1103	Textbook/open sources used On USG articulated list – https://www.usg.edu/academic_affairs_handbook/section2/C782 - USG Section 2.17 – General Education Course Transfer Chart

MATH 1111	Textbook/open sources used Who offers it online? If yes, how? What is working (share)? How to optimize student grasp of topics (share)
MATH 1112	Textbook/open sources used Review/discuss standards
MATH 1113	Textbook/open sources used
MATH 1127	Textbook/open sources used
MATH 1131	Textbook/open sources used
MATH 1132	Textbook/open sources used

- Nikki Stubbs – GVTC
 - Open sources
 - Accessibility
 - ADA Compliance
 - Making instructor lecture notes
 - Tools other schools are using to meet ADA requirements for math
 - OER - expansion (what is the expectation - 100%, 50%, "some"?)
- ALP/AMP Pre-Conf and Student Success Academy – March 19 and March 20-21, 2018 – Peachtree City
 - <http://www.techforcega.org/ssa/> - registration information for ALP/AMP Pre-Conf and SSA
- NADE/GADE – March 6-9, 2019 – Atlanta
- Election of Officers

State Chair State Vice Chair State Recorder	Central Chair Central Vice Chair Central Recorder
North Chair North Vice Chair North Recorder	South Chair South Vice Chair South Recorder

- Other and Adjourn

TCSG Colleges By Region

North Region	Central Region	South Region
Atlanta Athens Chattahoochee GA Northwestern GA Piedmont Gwinnett Lanier North GA	Augusta Central GA Columbus Oconee Fall Line Ogeechee Southeastern Southern Crescent West GA	Albany Coastal Pines Savannah South GA Southern Regional Wiregrass

Current officers elected 2016

State	North	Central	South
Chair: Chad Mathews (West GA)	Scott Allen (Chattahoochee)	Chair: Ervin China (Southern Crescent)	Chair: Chester Taylor (South)
Vice-Chair: Nathalie Dames (Atlanta)	Vice-chair: Janice Alves (Lanier)	Vice-Chair: Jennifer Stanley (West GA)	Laura Kyser (Savannah)
Recorder: Alysen Heil (Athens)	Recorder: Jennifer Loudermilk (Chattahoochee)	Recorder: Chauncey Keaton (Central)	Recorder: Becky Pierson (Savannah)

Technical College System of Georgia Co-requisite Remediation DRAFT Guidelines

The Technical College System of Georgia (TCSG) provides technical, academic and adult education and training focused on building a well-educated, globally competitive workforce for Georgia. Because all students who come to a TCSG college are not equipped to be successful in college courses, learning support (LS) courses are available at each TCSG college to assist students to improve understanding and performance in the areas of language usage, reading, mathematics, and algebra. The purpose of LS courses is to provide support to the students so they can be successful in credit courses and be successful in their programs of study. Each TCSG college should have written policies and procedures to determine placement into appropriate learning support instruction.

Scores on standardized assessments are used for evaluation and placement of applicants. Students are eligible for placement into LS instruction when assessments and other criteria are not at or above the designated cut score level. TCSG sets minimum cut scores, but a college and/or program may set higher cut scores.

In the past, the success of students who have taken LS courses has not been good; this has been documented with national data from research studies. This concern has also been highlighted by Complete College America/Complete College Georgia. Many students never completed LS courses and, therefore, never entered or completed their programs of study. It has seemed that the same instructional LS methods were continuing to be used with minor modifications, yet different results were expected (but the same results continued). Around 2010 the lack of success of students who began in LS continued to grow, and the Commissioner at that time encouraged all TCSG colleges redesign LS. Several methods were tried, but around 2012 or 2013 the Accelerated Learning Program (ALP) approach used by Community College of Baltimore County (CCBC) (Maryland) was discovered by TCSG instructors and administrators. The ALP approach had positive results at CCBC, and a few TCSG colleges began implementing ALP and AMP (Accelerated Math Program).

The ALP/AMP approach includes having students take a learning support course along with a credit class. The instruction provided in the learning support course should lead to student success in the credit course. Therefore, effective Fall 2017, colleges were encouraged by the TCSG Commissioner to use a co-requisite approach with learning support courses. Though it is recommended that all learning support be in a co-requisite format, this is not a requirement, but some courses must be offered in the co-requisite format.

It is recommended that English and Reading be combined; however, this has not been mandated. Combined English and Reading courses are included in KMS and can be used for pairing with ENGL 1101 or another college-level course.

Specific courses are not mandated to be paired; however, some of the more common pairings are listed here.

- LS ENGL (or LS ENGL/READ) and ENGL 1010
- LS ENGL (or LS ENGL/READ) and ENGL 1101
- LS MATH and MATH 1010 (or 1012)
- LS MATH and MATH 1101 (or 1103 or 1111)
- LS READ and ARTS 1101 (Colleges may use other courses with a lot of reading such as HIST 1111, for example.)

NOTE: Colleges may use the 0090 number or another LS number.

In addition to the above information, the following also serve as guidelines.

- Paired LS course sections may have only LS students or a mix of LS and non-LS students.
- Different sections of LS courses may be tailored for particular groups and offered for different amounts of credit (1-2 credit hours) at institutional discretion.
- When possible, it is suggested that the same instructor teach the LS course and the credit courses. However, this is not a requirement.
- A student who is taking paired courses cannot withdraw from the LS course and stay in the credit course.
- Institutions must issue traditional letter grades (A, B, C, D or F; LS grades are with an *) in LS classes rather than pass/fail distinctions.
- Students will exit learning support upon completion of the paired college credit course. It is possible that a student could earn a passing grade in the learning support course and a failing grade the college credit course, or earn a passing grade in the college credit course and failing grade in the learning support course. With these scenarios in mind, the following recommendations are provided.
 - For the student who passes the learning support course and fails the college credit course, the student would have satisfied the learning support requirement but would need to repeat the college credit course.
 - For the student who fails the learning support course and passes the college credit course, the student would have also satisfied the learning support requirement because he/she had a strong enough background in the subject to pass the college credit level course.

The college has the right to have a different policy, but the policy and explanation for how these scenarios will be handled should be provided to the students in writing prior to beginning the course (usually in the syllabus).

Attendees:

Gregory	Allen	Gwinnett	gallen@gwinnetttech.edu
Scott	Allen	Chattahoochee	Scott.Allen@chattahoocheetech.edu
Pamela	Anderson	Georgia Northwestern	panderson@gntc.edu
Morgan	Arnold	Central Georgia	marnold@centralgatech.edu
Dr. Gordon	Boggs	Chattahoochee	gboggs@chattahoocheetech.edu
Ervin	China	Southern Crescent	Ervin.China@sctech.edu
Michelle	Chung	Chattahoochee	mchung@chattahoocheetech.edu
Louisa	Cox	Chattahoochee	lcox@chattahoocheetech.edu
Nathalie	Dames	Atlanta	ndames@atlantatech.edu
Amit	Dave	Georgia Piedmont	davea@gptc.edu
Pierre	Dolcine	Southern Crescent	pierre.dolcine@sctech.edu
Tom	Feagle	Wiregrass	tom.feagle@wiregrass.edu
Ahmad	Flournoy	Atlanta	aflournoy@atlantatech.edu
Carol	Fuller	Columbus	cfuller@columbustech.edu
Autumn	Gabriel	Atlanta	agabriel@atlantatech.edu
Kristen	Garnto	Oconee Fall Line	kgarnto@oftc.edu
Raymond	Garzia	Wiregrass	ray.garzia@wiregrass.edu
Cornell	Grant	Georgia Piedmont	grantc@gptc.edu
Lynne	Groover	Coastal Pines	lgroover@coastalpines.edu
Debra	Guthrie	Gwinnett	dguthrie@gwinnetttech.edu
Marlene	Haller	Lanier	mhaller@laniertech.edu
Bee	Hart	Southeastern	bhart@southeasterntech.edu
Penny	Hidalgo	Lanier	phidalgo@laniertech.edu
Amy	Holloway	Central GA	aholloway@centralgatech.edu
Larissa	Holm-Smith	Athens	lholmsmith@athenstech.edu
Mary	Howard	Atlanta	mhoward@atlantatech.edu
Mitch	Jaeger	Columbus	mjaeger@columbustech.edu
Laura	Jenkins	North Georgia	ljenkins@northgatech.edu
Baruti	Katembo	Wiregrass	baruti.katembo@wiregrass.edu
Chauncey	Keaton	Central Georgia	ckeaton@centralgatech.edu
Laura	Kyser	Savannah	lkyser@savannahtech.edu
Anna	Lane	Wiregrass	Anna.Lane@wiregrass.edu
Nam	Lee	Southern Crescent	nam.lee@sctech.edu
Rose	Leggett	Albany	Albany Technical College
Jennifer	Loudermilk	Chattahoochee	jloudermilk@chattahoocheetech.edu
Trina	Lumbard	Columbus	tlumbard@columbustech.edu
Lecresicia	Marion	Oconee Fall Line	lmarion@oftc.edu
Don	Mason	Wiregrass	don.mason@wiregrass.edu

Zachariah	Mathew	Augusta Technical College	zachariah.mathew@augustatech.edu
Valerie	McKay	Chattahoochee	valerie.mckay@chattahoocheetech.edu
Kim	Miller	South Georgia	kmiller@southgatech.edu
Benita	Moore	TCSG	
Vidya	Nahar	Athens Technical College	vnahar@athenstech.edu
Dr. Calvin	Page	Atlanta	cpage@atlantatech.edu
Linda	Paradis	Central Georgia	lparadis@centralgatech.edu
Cassandra	Parker	Atlanta	cparker@atlantatech.edu
Emily	Phillips	Ogeechee	<u>ephillips@ogeecheetech.edu</u>
Becky	Pierson	Savannah	bpierson@savannahtech.edu
Matthieu	Pilon	West Georgia	matt.pilon@westgatech.edu
Vedamudalige	Rajakaruna	Columbus	vrajakaruna@columbustech.edu
Jemilatu	Razak	West Georgia	jemilatu.razak@westgatech.edu
Michael	Repzynski	Central Georgia	mrepzynski@centralgatech.edu
Steven	Riley	Chattahoochee	steven.riley@chattahoocheetech.edu
Tom	Rittweger	Georgia Northwestern	trittweger@gntc.edu
Yolanda	Roddy	Albany	yroddy@albanytech.edu
James	Smith	Columbus	jsmith@columbustech.edu
Nikki	Stubbs	TCSG	<u>nstubbs@tcs.edu</u>
Steven	Studdard	Augusta	sstuddard@augustatech.edu
Chester	Taylor	South Georgia	ctaylor@southgatech.edu
Pam	Warren	TCSG	pwarren@tcs.edu
Angel	Williford	Oconee Fall Line	awilliford@oftc.edu
Sonya	Wilson	Southeastern	swilson@southeasterntech.edu
Johnny	Zamor	Gwinnett	jzamor@gwinnetttech.edu