# **Math Issues Committee Meeting**

Friday, December 11, 2009, 11:00-12:30
Tunxis Community College, Room 7-206 (Library, large conference room)

Present: Larisa Alikhanova (TRCC), Martin Brock (NCC), Joachim Bullacher (QVCC), Elaine Dinto (NVCC), Paul Edelen (MCC), Teresa Foley (ACC), Andre Freeman (CCC), Pat Hirschy (ACC), Mark Leach (HCC), Marina Philips (HCC), Sue Ricciuti (TxCC), Rachael Schettenhelm (GWCC)

- 1. Minutes of the November 20, 2009 meeting were accepted unanimously.
- 2. Announcements: Miguel's recovery is going well; he hopes to teach in the spring.
- Old Business

a) Degree math courses with MAT 095 prerequisite for terminal degree — Members reported on their colleges' offerings as follows:

| College  | ACC | CCC  | GWCC                       | HCC | MCC | MXCC | NVCC       | NWCC | NCC | QVCC | TRCC | TXCC |
|--|-----|------|----------------------------|-----|-----|------|------------|------|-----|------|------|------|
| Degree math course(s)<br>with MAT*095<br>prerequisite for<br>terminal degree | 123 | none | 109<br>115,<br>123,<br>135 | 135 | 109 | 104  | 121<br>135 | 135  | 121 |      | 135  | 135  |

Notes regarding above matrix:

- At some colleges, the above designated course does not always run.
- Some colleges do not offer a credit course with only a MAT\*095 prerequisite.
- Because of the Committee interest in MAT\*109 (*Quantitative Literacy*), Paul was asked to describe the course as taught at MCC. He was very enthusiastic, sharing that the students loved the course. He doesn't have to kill the students with content and can focus more on critical thinking and general education skills. It is very supportive of the college mission, and it's a fun course to teach. Rachael mentioned that Gateway is considering offering MAT\*109 in place of MAT\*123. Pat shared that Asnuntuck is also in the process of reviewing MAT\*109 for its math offerings. The committee was asked their opinion of the course, and all indicated interest for their colleges.

Homework: Continue to bring your department feedback regarding MAT\*109 to the Committee.

 Intermediate Algebra — Criteria to differentiate various MAT 13x courses was reported as follows:

| College | Intermediate<br>Algebra<br>course # and<br># of credits | Place in curriculum<br>(prerequisite to<br>college algebra,<br>college algebra w/<br>trig, precalculus) | Content: Cover exponentials and logs, and to what extent?                  | Use of technology            | Function approach   | Modeling (find<br>model for data;<br>make connections to<br>real world topics) |
|---------|---|---|--|------------------------------|---|--|
| ACC     | 137<br>3  | precalculus   | yes to both  | graphing calculator required | yes   | some exposure to<br>modeling; do many<br>apps                                  |
| ccc     | 137<br>3  | precalculus;<br>considering college<br>algebra  | exp fcns and log fcns<br>covered, w/ domains;<br>do not solve<br>equations | no                           | no; briefly introduce<br>fcns, name exposure,<br>discuss domains                | no; do many apps   |
| GWCC    | 137<br>3  | college algebra<br>with/without trig<br>(172/175)   | briefly cover<br>exponential fcns; no<br>logs                              | graphing calculator required | no; do discuss fcns   | no; do many apps   |
| HCC     | 137<br>3  | precalculus   | no   | yes                          | no; briefly introduce<br>fcns, name exposure,<br>discuss domains                | no; no apps  |
| MCC     | 138<br>3  | precalculus;<br>considering college<br>algebra  | exponentials   | yes                          | yes   | yes, emphasis on modeling  |
| MXCC    | 137<br>3  | college algebra, then to precalculus  | no   | very little                  | no; just a bit toward the end   | very little modeling;<br>use of apps for most<br>topics                        |
| NVCC    | 137, 137C,<br>137A<br>3                                 | college algebra, then trigonometric functions   | exponentials (more<br>so in 137A); no logs                                 | yes                          | yes in 137A; discuss<br>fcns in 137 and 137C,<br>but not heavy<br>concentration | modeling in 137A;<br>apps in all, more so in<br>137A                           |

| NWCC | 137<br>3 | precalculus  | yes, including solving<br>exponential and log<br>equations and<br>graphing fcns |  |  |               |
|------|----------|--|---|--|--|---------------|
| NCC  | 136<br>4 | college algebra  | no  | calculators are<br>prohibited until<br>higher level<br>courses | no; briefly introduce<br>fcns, name exposure,<br>discuss domains | no modeling   |
| QVCC | 137<br>3 | precalculus; will go to college algebra  | no  | no   | no; briefly introduce<br>fcns, name exposure,<br>discuss domains | no; apps      |
| TRCC | 137<br>3 | precalculus  | yes to both   | graphing calculators   | no; considering a change   | no; many apps |
| TXCC | 137<br>3 | college algebra w/ C+<br>or better; finite math if<br>C or C-; then<br>precalculus |   | scientific calculator<br>okay; grapher<br>prohibited           | no; briefly introduce<br>fcns, name exposure,<br>discuss domains | no; some apps |

Notes regarding above matrix:

- Some colleges that do not currently have college algebra are considering offering it.
- Intermediate algebra is required of many students who do not go on to precalculus; something needs to be done for these students.
- Marina is collecting data to review performance of students with low Accuplacer scores.

**Homework:** Review chart for accuracy; look for patterns.

c) Placement policies, procedures, and instruments —

MI member results of Accuplacer self-test

| 1411 111 | ember results of Accupiacer sen-test  |
|----------|---|
| ACC      | Pat commented that Accuplacer seemed to have accurate placement into IA, but it was difficult to place out of IA.   |
| CCC      |   |
| GWCC     |   |
| HCC      |   |
| МСС      |   |
| MXCC     |   |
| NVCC     | NVCC math faculty volunteers will self-test in January.   |
| NWCC     |   |
| NCC      |   |
| QVCC     | Joachim took Accuplacer 4 times to try to determine how many correct questions were needed to place into 137; the number seemed to vary according to specific questions. He commented that one time he answered only (a particular) 4 of 12 questions correctly on the EA subtest and placed into IA. |
| TRCC     |   |
| TXCC     | Sue took Accuplacer 4 times with variable accuracy in placement.  |

### Homework:

- Ask for volunteers from your campus to take Accuplacer, as if students, so that we can share
  informed opinions concerning current placement scores. Make arrangements with your
  department and placement testing coordinator.
- Accuplacer considerations key questions to assess effectiveness of Accuplacer, perception of Accuplacer accuracy, interventions

c) ATB (Ability to Benefit) policy

| College | ACC<br>1 | CCC<br>2 | GWCC<br>3   | HCC<br>4 | MCC<br>5 | MXCC<br>6 | NVCC<br>7 | NWCC<br>8 | NCC<br>9 | QVCC<br>10 | TRCC<br>11 | TXCC<br>12  |
|---------|----------|----------|-------------|----------|----------|-----------|-----------|-----------|----------|------------|------------|-------------|
| A TD    | •        |          | 11          | •        |          | _         |           |           |          |            |            |             |
| ATB     |          |          | Uses        |          |          |           | none;     | none;     |          |            |            | Uses        |
| policy  |          |          | Accuplacer  |          |          |           | placement | placement |          |            |            | Accuplacer  |
| policy  |          |          | AR score    |          |          |           | into 073  | into 075  |          |            |            | AR score    |
|         |          |          | of 34 to    |          |          |           |           |           |          |            |            | of 34 to    |
|         |          |          | define ATB  |          |          |           |           |           |          |            |            | define ATB  |
|         |          |          | if no h.s.  |          |          |           |           |           |          |            |            | if no h.s.  |
|         |          |          | diploma;    |          |          |           |           |           |          |            |            | diploma;    |
|         |          |          | policy      |          |          |           |           |           |          |            |            | policy      |
|         |          |          | rarely used |          |          |           |           |           |          |            |            | rarely used |

Note: It was noted that the attainment of a high school diploma is sufficient to confirm ATB.

**Homework:** If you have not already done so, find out what the ATB policy is on your campus. Talk to the college testing person to determine if it tied to some Accuplacer cut-off score (a student should score this in order to be able to benefit from a course), and if so, how it is used. Talk to a financial aid person to determine if it is tied to financial aid somehow.

e) Adding ACT to placement menu

| College    | ACC | CCC | GWCC | HCC | MCC | MXCC | NVCC        | NWCC      | NCC        | QVCC | TRCC | TXCC |
|------------|-----|-----|------|-----|-----|------|-------------|-----------|------------|------|------|------|
| ACT policy |     |     |      |     |     |      | Math dept   | Will      | None;      |      |      |      |
|            |     |     |      |     |     |      | has no      | entertain | will       |      |      |      |
|            |     |     |      |     |     |      | know-       | the idea  | discuss at |      |      |      |
|            |     |     |      |     |     |      | ledge of    |           | dept       |      |      |      |
|            |     |     |      |     |     |      | current     |           | meeting    |      |      |      |
|            |     |     |      |     |     |      | use of      |           |            |      |      |      |
|            |     |     |      |     |     |      | ACT; no     |           |            |      |      |      |
|            |     |     |      |     |     |      | objections. |           |            |      |      |      |
|            |     |     |      |     |     |      | Will        |           |            |      |      |      |
|            |     |     |      |     |     |      | investigate |           |            |      |      |      |

**Homework:** Contact Admissions to see to what extent students bring ACT scores for consideration. Bring the issue back to your department to discuss the possibility of incorporating ACT scores as a placement tool, if there is a need.

## f) AMATYC Placement Position Paper discussion tabled.

**HOMEWORK:** Identify measures by which your college may be able to judge student placement. Suggestion: to get involved, meet with your testing coordinator and your IR person; build your plan into your additional responsibilities for next year.

### 4. New Business —

Andre distributed a handout of information regarding the **New Life Vision**, an initiative circulated by AMATYC's Developmental Math Committee at the November annual conference in Las Vegas. The notion is to change the current trend of re-teaching what students may/may not have had in high school, to give them something different and to support interest in higher level math courses. Three pillars were defined as preparation for college level mathematics, preparation for related discipline courses, and preparation for general academic success. Two principles were identified: providing skills and core content that can be flexibly adapted to future situations and empowering students for additional and higher academic goals. The pillars and principles lead to a mission statement and models for a *Foundations of Mathematical Literacy* course and a *Transitions to College Mathematics* course. Additional information is available at <a href="http://dm-live.wikispaces.com">http://dm-live.wikispaces.com</a>; colleges are invited to collaborate using the wiki.

**HOMEWORK:** Review Andre's handout and bring feedback to the next meeting.

#### 5. Announcements —

- PowerPoint presentation of Mathematics K-12 Core Content Standards for College Readiness (able to enter a degree credit math course at a 2- or 4year college) available at <a href="http://www.math.uconn.edu/~dgross/MBSCC/2009-">http://www.math.uconn.edu/~dgross/MBSCC/2009-</a>
  - 10MBSCC\_LDG\_Presentation\_CommonCoreMathStandards10-16.pdf
- Electronic copy of the CSU placement procedures available at http://www.math.uconn.edu/~dgross/MBSCC/2009-10MBSCC4CSUplacementalgorithms.pdf
- 6. Next meeting will be held at Tunxis CC on Friday, February 19, 2010, at 11:00.
- 7. Meeting adjourned at 12:35 p.m.

Respectfully submitted by

Elaine Dinto