

Meeting Minutes: Committee on Mathematical Subjects

Meeting Minutes Academic Committee on Mathematical Subjects April 1999

The Academic Advisory Committee for Mathematical Subjects (ACMS) met on April 8 and April 9, 1999 at Georgia College and State University in Milledgeville, Georgia. Beginning on Thursday afternoon, representatives were initially welcomed to the institution and proceeded to faculty development sessions as facilitated by ACMS Chair, Catherine Aust.

The initial session dealt with developing and delivering asynchronous mathematics courses, specifically on the internet. Information was shared with the representatives by USG faculty currently involved with delivering such courses.

The second session was an informational session concerning the courses and options prevailing at sister institutions. Specifically, Area A courses and the Calculus sequence were discussed. Following a brief recap of the standing of the Area A courses for the "non-science" majors, Jack Morrell, as chair of the Curriculum and Transfer of Credit Subcommittee, presented the survey of topics offered in the Calculus sequence by course by institution and the compilation of the results in matrix form. This was in response to a motion passed by the ACMS two and a half years ago concerning common numbering in the Calculus sequence together with the concern expressed last year concerning the implications that a common curriculum would thereby be implied. Areas of commonality were noted together with the variances. Almost all institutions covered the same topics over the course of the three courses. The major components of difference were:

- a. the precise topics that ended/began the individual courses,
- b. whether the logarithmic and exponential functions were presented as an extension of exponentiation (Calculus I) or as the area under the hyperbolic curve (Calculus II), and
- c. additional topics covered by various institutions.

It was also indicated that some schools offered *College Algebra* only, some offered *Introduction to Modeling* only, and some institutions offered both courses.

Concurrent sessions to discuss areas of concern specific to two-year and four-year institutions followed.

Business Meeting

Chair Catherine Aust convened the business meeting at 9:00 a.m. on Friday, April 9, 1999.

1998 - 1999 Representatives present

Institution	Name
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Georgia Institute of Technology	Eric Carlen*
University of Georgia	Kevin F. Clancey
Georgia Southern University	Donald Fausett
Valdosta State University	Ashok Kumar *
Albany State University	Connie Leggett
Armstrong Atlantic State University	Dick Munson
Augusta State University	Fred Maynard *
Clayton College & State University	Catherine C. Aust [Chair] *
Columbus State University	Richard Gibson
Fort Valley State University	Fariborz Asadian
Georgia College & State University	John Robertson
Kennesaw State University	R. Biggers
North Georgia College & State University	Ed Green
Savannah State University	Suversha Gupta
Southern Polytechnic State University	John Gordon
State University of West Georgia	C. R. Pittman
Atlanta Metropolitan College	John Morrell *
Coastal Georgia Community College	Robert Balman
Dalton State College	Wayne Bosche
Darton College	Barbara McLendon
East Georgia College	W. Edward Bolton
Floyd College	Margaret Davis
Gainesville College	Danny Lau
Georgia Perimeter College	Virginia Carson
Gordon College	Allen Fuller
Macon State College	Jimmie Robertson
Middle Georgia College	Roberta Yauck
South Georgia College	Charles Douglas
Waycross College	James Helms

Following a request for updates concerning representative information, a discussion of the suggested time and location for next year's meeting took place. It was agreed to meet on February 24 and 25 at Valdosta State University immediately preceding the Mathematics Technology Conference being held at that institution.

The Chair recognized the liaison from the Board of Regents, Dr. Kathleen Burk. Dr. Burk discussed the 1% payback from the institutions during the preceding year. Dr. Burk then discussed the status of post-tenure review and indicated the importance that the Board of Regents is placing on program evaluation.

Dr. Burk then reviewed the Georgia Early Mathematics Placement Test, brought before the Committee last year by Catherine Aust. This is an ongoing process that attempts to help high school juniors make informed choices concerning their selections for mathematics in senior year. The intent is to avoid both remediation and also a push to advanced courses. Currently, it is voluntary for high schools to participate although the program will be expanded to statewide status next year.

A discussion followed regarding the procedure for joint enrollment for high school students who wish to take a college course. Concerning the question of whether a student should be encouraged to take *Algebra*, *Geometry*, skip *Trigonometry*, and take either *College Algebra* or *Introduction to Modeling*, the proposal discussed suggested that advanced students should not take a college course that might not be in their college program (defeating the primary reason for joint enrollment); replacing *Trigonometry* with *College Algebra* could be detrimental to the student's progress. Also, according to Dr. Burk, high schools generally won't count mathematics taken in the eighth grade as part of the four-unit requirement. There was general consensus that enrollment in *College Algebra* or *Introduction to Modeling* in high school should be avoided.

Other topics discussed were the P-16 and PACTS, regents' test in mathematics vs. level 14, and information contained on the University System website. Of note, there is the Core Curriculum, topics related to the transfer of Core Curriculum credit between USG institutions, and the transfer ombudsperson identified at each institution. The ombudsperson is the contact person for students, faculty, advisors, records and admissions personnel, and academic administrators when problems related to transfer of Core Curriculum coursework across System institutions occur. Of specific note, individual courses, such as *College Algebra* and *Introduction to Modeling*, transfer on a course by course basis.

In the discussion of transfer of credit course by course vs. through Area completion and following a question from the floor, it was noted that Business canNOT require *College Algebra* in Area A although it was acknowledged that exceptions probably exist and may be expanded.

A brief discussion of students with learning disorders included the fact that learning disorders or disabilities can be evaluated and provisions made to help the students, but that they cannot be exempted from the Area A mathematics requirement.

Old business

The Executive Committee reported out the following:

Chair-elect: Jim Helms: Motion, second, passed by acclamation.

Motion to include the immediate past-Chair as part of the Executive committee in order to provide continuity of function and information was made, seconded. Passed by acclamation.

Remainder of the Executive Committee as proposed:

Fred Maynard

Eric Carlen

Don Fausett

Motion, second, passed by acclamation.

Composition of Executive Committee 1999 - 2000:

John Morrell	Atlanta Metropolitan College	(Chair)
James Helms	Waycross College	(Chair-elect)
Catherine C. Aust	Clayton College & State University	(Past-Chair)
Eric Carlen	Georgia Institute of Technology	
Donald Fausett	Georgia Southern University	
Fred Maynard	Augusta State University	

Achievement and Placement Tests

This subcommittee reported that there was fairly uniform agreement that credit for one course is given to a student who scores a '3' or higher on the AB Calculus exam and credit for two courses for similar scores on the BC exam. Nothing recent was reported concerning other placement exams, but that an e-mail survey was to come shortly investigating how to decide initial placement. The results would follow.

Assessment of the Major

Ed Green reported the results of the survey concerning assessment methods in place at USG institutions.

At the two-year/no mathematics major level, one institution (South Georgia) reported a formal assessment method in place, one (Atlanta Metropolitan) reported discussions preparatory to a formalized process. Several ideas were submitted which included: a capstone course, portfolios, interviews and/or local examinations administered to Calculus II students, examination of students' performance in upper division courses. There were eleven responses from this group.

At the Bachelor-granting level, most reporting institutions have a process in place. (The number of institutions

utilizing a process follows in parentheses.) Exit interview/questionnaire (7), Alumni survey (6), Major Field Test -ETS (5), Senior project/Capstone course (4), Portfolios (2), comprehensive oral exam (1), locally developed test (1), tracking (1), mathematical involvement - math club, Putnam exam, etc. (1), monitoring performance in other disciplines (1). There were eleven responses from this group.

A discussion of capstone courses and the MFT followed.

Curriculum and Transfer of Credit

Jack Morrell presented the survey of topics offered in the Calculus sequence by course by institution and the compilation of the results. This was in response to a motion passed by the ACMS two and a half years ago concerning common numbering in the Calculus sequence together with the concern expressed last year concerning the implications that a common curriculum would thereby be implied. Areas of commonality were noted together with the variances. The subcommittee felt that, based on the discussion on Thursday, the ACMS should go on record with an active position on the subject, indicating approval, disapproval, or lack of concern. A motion for common numbering was made, seconded, and defeated. Most who spoke in opposition felt that the differences in some topics and the different missions of some institutions precluded the common numbering.

Course and Textbook Information

Jimmie Robertson provided the current report on courses, textbooks and calculators. He also announced his retirement and was enthusiastically and profusely thanked for his years of service to this committee. The recommendation from this subcommittee: *Course and textbook information should be collected through a web-based application linked to our new ACMS homepage. At a minimum, the application should do the following:*

1. Permit institutions to update their own course and textbook information.
2. Allow institutions to preview and print various reports.

Distance Learning

This subcommittee reported the survey from the two-year institution break-out session on Thursday. An editorial by Jack Robertson was distributed.

Faculty Development

The subcommittee reported that the ACMS directly experienced the results of their work during the two days of the meeting.

National Mathematics Awareness

One topic discussed was the use of Galileo, especially with respect to certain expensive publication titles. It was mentioned that on-line access to Math Reviews, for instance, in addition to being quicker and faster than a physical search and reading, could reduce the price from \$10,000 to \$4,000. Possibly the funds freed in this way could be put to some beneficial purpose.

Other topics included a report on conferences and a discussion of PACTS level 12 and 14.

New business

The ACMS expressed its appreciation to Jack Robertson and Georgia College and State University for hosting the meeting.

The meeting was adjourned to the next called meeting at 12:15 p.m.

Respectfully submitted,
Jack Morrell

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