

**Minutes of Biology Academic Advisory Committee (BAAC)
Meeting, November 7, 2003**

In attendance at the 11/7/03 Macon State meeting were:

Ray Barber - ABAC
Kenneth Relyea - Armstrong Atlantic State University
Emil Urban - Augusta State University
Greg Hampikian - Clayton College & State University - current chair
Eugene Keferl - Coastal Georgia Community College
William S. Birkhead - Columbus State University
John Lughart - Dalton State College
Steve Schenk - Darton College
Dorothy Zinsmeister - Georgia Board of Regents [LIAISON]
Bill Wall - Georgia College & State University
Mary Mayhew (sub) - Gainesville College
Sheryl Shanholtzer - Georgia Perimeter College
Stephen Vives - Georgia Southern University
Steven Kudravi (sub)- Georgia State University
Ron Matson - Kennesaw State University
Eric L. Sun & David Davis (guest) - Macon State College
John Pasto - Middle Georgia College
Terry Schwaner - North Georgia College & State University
Gene Mesco - Savannah State University
Timothy Rhoads - South Georgia College
Bill Burnett - Southern Polytechnic State University
David L. Bechler - Valdosta State University

1) Report on area F review: Dorothy Zinsmeister, Dave Bechler

Dorothy expressed concern that some schools are not in compliance with the BAAC area F recommendations as currently worded under "additional course work." Her primary concern was that students transferring from those institutions not currently in compliance would be disallowed credits at receiving institutions, forcing these students to take extra courses.

A few examples of non-compliance were discussed, such as the case of VSU offering a 3-course sequence rather than the 2-course sequence standard. Another possible conflict discussed involved those departments allowing additional area F options (beyond the organic Chemistry sequence and Physics sequence) such as Botany, and those institutions that require or offer a 2 or 3 hour "research methods" or "Biology principles and practices" course. Steven Vives of GA Southern stated that their department included a 2-course Geology sequence in area F.

Another issue briefly discussed was course numbering (ie. 1000, 2000 or 3000 level). The group did not identify any problems here, and no changes were made.

After much discussion the following statement was voted on and passed by the group:

Existing statement: Lower division science courses (with lab) including organic chemistry, general physics; mathematics not taken as a part of Areas A or D; computer science; foreign language.

New statement: Lower division science courses for majors chosen from general Biology, organic Chemistry, general Physics, and Geology; mathematics not taken as parts of areas A or D; foreign language; computer science”.

2) Area F considerations: see above

3) Learning outcomes for courses in the core: Dorothy Zinsmeister, Dave Bechler

Dorothy stated that the present Biology learning outcomes are nice, but that they are not very specific - that they don't really speak to the issue of: a) what are our expectations and how do we define them, and b) what is the underlying philosophy of our expectations? She also said we should consider what we agree on.

In reference to this issue, Greg Hampikian suggested that the Biology faculty across the system could compare what we are teaching in the common courses, as well as comparing what we teach in the courses within each department. Then, we could devise a standard for common courses across the system, and reduce repetition among courses at a given institution thus increasing our efficiency. He offered that we could start with a list of Biology topics, determine in which course(s) these topics are covered, and compile this information into a matrix to be circulated among us.

Steve Kudravi talked about the QUE (Quality in Undergraduate Education) effort at GA State, and that this would be a good place for each of us to access information on the QUE concepts and ideas. He said that the GA State faculty use a standardized test to measure their teaching effectiveness. He stated that their philosophy involved preparing students to think critically as scientists rather than simply programming them with the standard information. Greg Hampikian asked Kudravi to make a short QUE presentation to the group during our next meeting.

Sheryl Shanholtzer also discussed a QUE document, charging us with deciding our standards for the education of majors in each discipline. She said that she will make this document available to each of us.

4) Charge to AAC committees by Frank Butler concerning learning outcomes: see 3) above.

5) Review of our current course numbers for similar courses such as A&P, non-majors Biology, majors Biology, etc.: Dave Bechler

Dorothy mentioned the BOR initiative entitled Multi Institutional Functionality (MIF). MIF would allow students to enroll in courses offered by other institutions. It is here that common course numbering would be helpful.

A quick survey around the room proved that our current course numbers are indeed not universal. Discrepancies exist in 1000 vs 2000 level courses, such as BIOL 1107 and 2107 serving as comparable first semester Principles of Biology courses (majors). There also exists numbering discrepancies in 2000 level courses such as A&P, where some schools have an A&P series numbered 2210/2211 vs other 2000 designations.

Steve Kudravi proposed that we compare syllabi across the system for those comparable courses with number discrepancies (such as Biology and A&P) to ensure that the content is similar.

A key issue discussed here was content relative to pre-requisites. However, no decisions were reached.

6) A&P: does it need pre-requisites? Dave Bechler

The consensus answer was NO. Dave commented that many of his nursing students perform poorly in A&P, presumably because they are unprepared. He suggested that the students may be better served if required to take an introductory Biology course or sequence as a pre-requisite to A&P. Although we all agreed that this would be great, many in the room stated that the nursing departments at their respective institutions had negotiated this requirement away due to the numerous nursing course requirements in their curriculum.

The group discussed what additional course(s) the nurses should take in the event that the requirements were expanded. Included in the list of opinions were general Biology, and general Chemistry. The concern was stated, "how do we (or do we) ensure that nursing students have some understanding of Chemistry prior to A&P."

Dorothy is going to look at area D1, D2a & D2b for clarification.

7) Reassigned time: how do system Biology departments determine it? Dave Bechler

Dave asked for feedback on this so he can make comparisons across the system. He wants to know how time is credited for those who work with graduate students, and that he would like to see models from other schools around the country. Dave is going to compile a report. Please forward information on this issue to Dave Bechler via email dbechler@valdosta.edu.

8) Assessment of teaching - discussion of effective methods - Bill Burnett

The group discussed various methods used to measure teaching effectiveness. Methods mentioned included: a) measuring how much the students are learning by way of a comprehensive test, b) by using teaching portfolio, c) peer review, d) department head monitors your teaching, and others.

Dorothy proposed that "student outcomes" (ie. how does your teaching affect the student?) is the best measure of our teaching effectiveness, but that this is difficult to monitor and quantitate, and outcomes may not be evident for years following graduation. Sheryl Shanholtzer agreed and added to this.

Steve Kudravi said that GA State uses a mentoring program in which new teachers shadow and observe an experienced teacher. This would hopefully put the rookie on the right track.

Greg Hampikian voiced his concerns that our best efforts in application of the most effective teaching methods often result in the greatest student displeasure. Therefore, how well does student evaluation measure our teaching effectiveness? The answer is poorly. The majority of the students are not doing well, and lack the perspective to know the difference in what they like vs what is best. The students may not be qualified to judge your "goodness", or how much they think they learned for that matter.

Dorothy said that a text by Chickering & Gamsen entitled, "The Seven Principles for Good Practice in Undergraduate Education" is a good resource for information on this topic. Dorothy will send the reference to the committee

9) Money woes, budget cuts - how is this likely to affect us over the next few years? : Nobody wants to think about this, so we didn't.

10) Lab fees - how should they be set?

Most schools are charging a lab fee collected at the time of registration. In some cases, these fees are actually all used for lab costs. In other cases the money enters the general fund of the institution. It sounded from the discussion like the former is true in most cases. The average standard fee is \$20-25.

Someone asked if ETAC funding is available this year for lab funds. Unfortunately, the answer is no.

Dorothy reported that funds are available via RFP through Ed Davis at UGA. These funds are designated for use by those programs partnered with K12, and focusing on professional development opportunities of math/science students and faculty.

11) The evolution statement from last year:

Ron Matson supplied us with a draft statement. The group discussed this at length, made several editorial suggestions, and approved this draft statement.

UNIVERSITY SYSTEM OF GEORGIA BIOLOGY ACADEMIC ADVISORY COMMITTEE
STATEMENT ON EVOLUTION

Biological evolution is a major unifying concept in modern Biology and provides a conceptual framework that helps make Biology a unified science. The centrality of evolution to modern Biology has been acknowledged by a number of major scientific organizations including the American Association for the Advancement of Science and the National Academy of Sciences. As the appointed representatives of college and university Biology professors from around the state, we expect that all students entering our colleges and universities have a clear and accurate understanding of the basic tenets of biological evolution so that they will be prepared for college-level Biology classes.

Furthermore, we oppose attempts to have creationism (or its variants such as "scientific creationism" or "intelligent design") taught as science. These ideas are outside the scope of science. In order to properly prepare scientifically literate citizens/students, it is necessary for schools to teach biological evolution.

As professional scientists and educators, we offer our services to any faculty, administrator or school board who needs advice about how to best teach biological evolution.

12) Education of secondary Biology majors by Biology departments: which schools have prospective Bio majors actually listed as getting a major in their depts. and what set of courses they are taking. Dorothy Zinsmeister

The secondary education science teaching programs are no longer supposed to be in the schools of education. They are now supposed to be Biology majors. The enforcer to make the education departments "give up" these students is still up in the air.

Students intending to teach high school Biology should no longer pursue a BS education degree. They should pursue a BS in Biology with Teacher Certification degree. There should be no education courses in area F of the Biology curriculum.

The gatekeeper for qualification to teach high school Biology will be the Praxis II test. The 51% rule is now officially gone.

13) Moment of science on NPR: should we produce one in GA?

Dave Bechler is going to check on this.

14) Interactions with schools: business leaders say this is key.

Greg Hampikian asked what each of us are doing to interact with K12. Dorothy mentioned the recent NSF grant for \$34 million which focuses on USG - K12 partnerships. Several of the faculty discussed partnering programs in which they are involved.

As mentioned in #10 above, as well as this \$34 million, grants are available to fund such involvement. Greg suggested that each of us could donate a day or 2 to participate in K12 activities, such as speaking to a group of students, or volunteering to assist in some type of program. He said that a small effort on our part can make a huge influence on the kids.

The group elected Executive committee members for 2004-05:

Chair elect: Dave Bechler

Past chair: Tim Rhoads

Research rep.: Stephen Vives

4yr. rep: Bill Wall

2yr. rep: Eugene Keferl

The group decided that our next meeting, depending on availability of travel money, would be at Berry college. The preliminary date for this meeting was set for Thursday 12 pm to Friday 12 pm (March 25 & 26) with adjournment for the Georgia Academy of Science Meeting starting at Noon at Berry College.

Ron Matson reported that this years SOTAB meeting will be held January 23&24, 2004 and that information is available at <http://sotab.kennesaw.edu>.

The meeting was adjourned at 4PM.