

Meeting Minutes: Committee on Physics and Astronomy

Meeting Minutes

Academic Advisory Committee on Physics and Astronomy

April 23, 1998

Armstrong Atlantic State University, Savannah, Georgia

The meeting of the Academic Advisory Committee on Physics and Astronomy (AAC-PA) was held on the campus of Armstrong Atlantic State University, Savannah, Georgia, on Thursday April 23, 1998. The meeting convened in Room 105 of the University Hall and Professor F. Todd Baker, the Chairman, called the meeting to order at 3:05 p.m. A [list of attendees](#) is attached to these minutes.

In a brief address, Dr. Frank Butler welcomed the AAC-PA members to the Armstrong Atlantic State University.

Address by Dr. Dorothy Zinsmeister:

Dr. Dorothy Zinsmeister, the current Faculty Associate to the Board of Regents, delivered her "words of wisdom" from the Regents' Office.

Dr. Zinsmeister began her address by encouraging AAC-PA members to favorably consider serving as Faculty Associates. She spoke highly of her roles, as the Faculty Associate and as the liaison to the Academic Advisory Committees, in bringing the faculty perspective to the Central Office on issues that have direct impact on faculty and staff.

In addressing specific matters germane to the AAC-PA, Dr. Zinsmeister expressed interest in dealing with matters of interest to this group. She urged members to consider questions raised by Professor Chris Wozny on possible future directions of the AAC-PA. She also encouraged the Committee to recommend plans for advancing Physics and Astronomy in the State of Georgia.

Dr. Zinsmeister reported that feedback from a survey of department chairs and faculty members indicated interest in the formation of a course accreditation body and the need to clarify expectations in order to ensure direct transfer of courses between the two-year and four-year institutions in the State.

Dr. Zinsmeister noted the gender disparity in the membership of the AAC-PA and urged this group to explore ways of improving this condition.

Regarding preparation of science teachers in Georgia, Dr. Zinsmeister noted the high percentage of "out-of-field" physics teachers and its potential impact on the quality and preparation of students coming to college. She suggested that more courses taken in service by teachers would lead to better teaching and better-prepared students. She also hinted at a recent document approved by the Board of Regents (BOR). This document, Principles for the Preparation of Educators for the Schools, stipulates ten policies to guide the efforts aimed at improving teacher preparation. Dr. Zinsmeister promised to send a copy of this document to the Committee.

Regarding the interaction and linkages among institutions, she noted that there were a handful of known

contacts between high schools and universities. She commended such linkages as avenues for defining expectations of pre-college students at the high school level and hoped comparable contacts would be established at the college-level. She encouraged AAC-PA members to check the BOR Fact Book that contains information about transfer student percentages between academic institutions in the State. She advised that such information should prove useful in making decisions on establishing linkages between schools. In response to a question posed to her about the existence of any official linkages between universities and the technical institutes (DTAE), Dr. Zinsmeister referred to the School to Work program and emphasized the need for further articulation of common interests among these institutions. There were further discussions of this interaction with the DTAE institutions and the transferability of their courses to the universities. Professor Sam Scales explained that courses with COC accreditation by SACS are usually 100% transferable between both institutions while the non-COC courses were not. The DTAE schools are highly encouraged to obtain COC accreditation for their courses for assured transferability to the universities. Dr. Zinsmeister noted that the DTAE institutions are interested in establishing linkages with the USG institutions. She then suggested that invitation be extended to the DTAE schools to participate in AAC-PA meetings.

Dr. Zinsmeister announced the availability of USG Grants to Academic Advisory Committees. She submitted a copy of the RFP dated April 27, 1998, to the AAC-PA Secretary. She pointed out the due date of May 29, 1998, for the receipt of the proposals to the Office of Academic Affairs. In response to a question concerning the short timeline between the release of the RFP and the due date, Dr. Zinsmeister emphasized that this date had been set on the Faculty Development Calendar for the year and would likely remain firm, henceforth.

In conclusion of her address, Dr. Zinsmeister challenged the AAC-PA members to do more in order to promote the disciplines and physics in the State. She suggested organizing activities in line with the 1999 Physics Centennial Celebration. She further suggested the invitation of speakers to a statewide conference to speak on general issues related to teaching of physics and astronomy. Dr. Zinsmeister concluded her address, reminding the Secretary/Chair-elect about the procedure and format for the submission of the AAC-PA minutes with any recommendations by email. In expressing support for promoting the discipline, Professor Chris Wozny apprised the AAC-PA members of the submission of a proposal for a Physics Olympics by a collaborative team of four AAC-PA members ñ Professors J.B. Sharma (Gainesville College), James Weeks (ABAC), Martin Okafor (DeKalb College), Chris Wozny (Waycross College). Professor Wozny urged support for the idea even if the grant proposal is not funded this time. On the issue of linkages between schools, he suggested that the AAC-PA meeting could be scheduled to coincide with the general regional meetings of the AAPT or the APS in order to facilitate greater participation of a larger group of our professional colleagues.

Discussion of the Mission of the AAC-PA with introductory remarks by Prof. Chris Wozny: The Chairman, Prof. Baker, called on Prof. Wozny to give his introductory comments to commence this discussion. On the possible directions for the AAC-PA, Prof. Wozny referred to the charge given to the Academic Advisory Committees during the meeting of the AAC Executive Committees with representatives of the Board of Regents in Macon last Fall.

Prof. Wozny expressed satisfaction with the current functions of the AAC in reaching consensus on matters of

policy, networking between institutions and discovering more about other physics programs in the State. However, in light of the expectations set by the BOR for the committees and the vast diversity between individual personalities and institutions, he pondered the common purpose, or mission of the AAC-PA as a committee.

Continuing, Prof. Wozny proposed the production of an annual report titled Physics in Georgia. He envisioned that a section of this report would present statistical data that will include data on number of majors at each institution, graduates, course enrollment, directory of full-time physics faculty etc. Another section of this report would include annual reports from all system institutions on activities in the areas of promotion and tenure, teaching, college and community service, and professional development/ research. A third section of this proposed report would comprise the minutes of the AAC PA meetings and any resolutions passed by the committee.

In conclusion, Prof. Wozny outlined the advantages and disadvantages of this proposal. He anticipated that this proposal would lead to improved communications between the physics institutions in the University System of Georgia. Subsequently, he hoped, the mission and purpose of the AAC-PA will become pro-active instead of re-active . On the other hand, Prof. Wozny noted that major disadvantages involve the labor-intensive compilation and editorial of the proposed report.

In response to a question concerning the funding sources for the proposed report, Prof. Wozny replied that the seed money would be requested from the BOR as a funded USG grant proposal.

Following the conclusion of Prof. Woznys' presentation, there were suggestions of a web centered version of this proposed report. Prof. Dennis Marks echoed the need to define the mission of the AAC-PA and expressed preference for the web-centric approach. He then suggested that the committee concentrate on the areas of commonalty among the USG institutions especially the first two years of the physics and astronomy curriculum. Prof. Henry Valk endorsed this focus on the areas of commonalty within the first two years. Following the apparent acceptance of the web-centered focus on the areas of commonalty, Prof. Brooke Pridmore suggested a standard electronic layout that specifies required information, such as syllabi of core courses, for each institution. The local web sites at individual institutions should then forward the reference URL to the webmaster, Prof. Baker, for creating hyperlinks on the AAC-PA homepage. The Chair (Prof. Baker) and the Secretary/Chair-elect (Prof. Okafor) had earlier agreed that the AAC-PA web site should remain at the University of Georgia. Thus, Prof. Baker continues as the webmaster for AAC-PA. After some discussion of the areas of two-year commonalty, it was decided that the initial item for submission to the web site should be the syllabi of four physics courses and three astronomy courses. A motion was made and seconded that AAC-PA should create a web page such that all departmental web pages at the USG member institutions may be hyperlinked to the AAC-PA web site in order to provide access to the syllabi of the common core courses under the academic semester system. This motion passed unanimously. Prof. Henry Valk informed members that Georgia Tech has already published their semester syllabi on the GA Tech web site.

On further discussions on the details of the required web information, it was decided that the AAC-PA would not mandate any specific format and content of the syllabi. The format will be entirely at the discretion of the local

institution. However, members were encouraged include the lecture and laboratory syllabi, where applicable, but present only information related to the syllabi. It was also agreed that there would be only one hyperlink to a departments' web page for the course syllabi information.

In an effort to address a problem faced by our colleagues, especially in the two-year colleges, the Secretary/Chair-elect, Prof. Martin Okafor, drew attention to the need of laboratory technicians to assist with the functions in the physics and astronomy laboratories. He suggested the possibility of a recommendation from the AAC-PA with guidelines for USG member physics departments. Prof. J. B. Sharma noted that there were AAPT guidelines addressing this matter, similar to the ACS standards for Chemistry. Following a lively discussion of this issue, it was decided that Prof. Sharma should review the AAPT guidelines and draft an appropriate recommendation. This draft should be circulated via email for comments and suggestions. The final version should then be forwarded to Prof. Okafor who then forwards the recommendation to the Central Office (BOR).

Discussion of syllabi for common-numbered courses with introductory remarks by Prof. Kailash Chandra: Prof. Chandra recommended that this discussion be deferred until the syllabi of these common-numbered courses have been posted by member institutions. This recommendation was accepted.

Discussion of the possibility of standardized pre- and/or post-tests for common-numbered courses with introductory remarks by Prof. Ntungwa Maasha.

In the absence of Prof. Maasha, it was suggested that discussions or decisions on this matter be should be deferred until commonality issues are determined. However, it was decided that AAC-PA member departments should submit their institutional policies regarding advanced placement (AP) credits for physics courses to Prof. Baker for posting at the AAC-Paweb site. The intent of organizing the data at a central location is to present all the available data and, hopefully, achieve some statewide uniformity of these policies.

At this point, the members took turns to introduce themselves.

Election of next year's Executive Committee

Below are the results of the election of next years' Executive Committee.

- Prof. Richard Prior, North Georgia College S.U., was selected by acclamation by the entire Committee as the Chair-elect for 1999/2000.
- Prof. James Weeks, ABAC, was elected to represent the two-year colleges.
- Prof. Morris Whiten, Armstrong Atlantic S.U., will represent the four-year colleges/universities.
- Prof. Dennis Marks, Valdosta State U., will represent the regional and research universities.
- Prof. F. Todd Baker, immediate past chair, and Prof. Martin Okafor, Chair, will also serve on this 1998/99 Executive Committee.

On adjournment, following a motion of appreciation by acclamation for great service as the 1997/98 AAC-PA Chair, members applauded the immediate past Chair, Prof. F. Todd Baker.

The meeting adjourned at 5:30 p.m.

Respectfully submitted,
Martin O. Okafor

ATTENDEES:

F. Todd Baker, University of Georgia
Brooke M. Pridmore, Clayton College & State University
Ron Ezell, Augusta State University
Morris Whiten, Armstrong Atlantic State University
Bill Lamb, Georgia College & State University
Gary Watts, Middle Georgia College
Neil Koone, Floyd College
James Weeks, Abraham Baldwin College
Sam Scales, Southern Polytechnic State University
James Wang, Gordon College
Michael J. Pangia, Georgia Southwestern State University
Jagdish Agrawal, Atlanta Metropolitan College
Dennis W. Marks, Valdosta State University
Martin O. Okafor, DeKalb College
Tsun-Hsiung (Charles) Kao, Columbus State University
Dick Prior, North Georgia College & State University
J. B. Sharma, Gainesville College
Surendra N. Pandey, Albany State University
J. Hasbun, State University of West Georgia
Henry Valk, Georgia Tech
Jeffrey W. Laub, Macon State College
Kailash Chandra, Savannah State University
Chris Wozny, Waycross College
Dorothy Zinsmeister, BOR

RECOMMENDATIONS

From the

UNIVERSITY SYSTEM OF GEORGIA ADVISORY COUNCIL

Committee on: Physics and Astronomy

Chairperson: Martin O. Okafor*

Date: June 1, 1998

RECOMMENDATION (S)

The Academic Advisory Committee on Physics and Astronomy (AAC-PA) recommends that all colleges and universities in the University System of Georgia meet the guidelines of the American Association of Physics Teachers (AAPT). Of particular importance is the guideline on laboratory instructors. This guideline L-8 (the 8th guideline) on page 13 of the Laboratory Guidelines recommended by AAPT, in its publication, AAPT Guidelines for Two-Year College Physics Programs states:

A laboratory instructors' required teaching responsibilities should not include serving as a laboratory technician. Each weekly lab session requires tasks in addition to pedagogical responsibilities. These include distributing and storing of weekly lab equipment, maintenance of equipment, safety inspections, inventory updates, and ordering and designing new equipment. Larger physics departments (more than 20 weekly lab hours) should include full-time lab technician. Smaller departments should hire part-time technicians or award released time to physics faculty members .

RATIONALE

The American Association of Physics Teachers (AAPT), a member society of the American Institute of Physics, is a unique partnership of college and university faculty; high school instructors; researchers; administrators; and students interested in furthering physics education. As stated in the AAPT Constitution, the objective of this Association shall be the advancement of the teaching of physics and the furtherance of appreciation of the role of physics in our culture . This national organization highlights best practices, establishes national patterns of excellence, and promotes guidelines for physics programs. Considering the critical importance of the physics laboratory to the students' educational experience, this AAC-PA recommendation is an attempt to address problems that adversely impact the physics laboratory instructor's performance and the quality of attention to physics' students in the laboratory.

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