

ANNUAL REPORT

ACM TWO-YEAR COLLEGE EDUCATION COMMITTEE

July 1, 2000 - June 30, 2001

Submitted By: Karl J. Klee and Robert D. Campbell

1. BASIC INFORMATION

1.1 Committee Members:

Karl J. Klee (outgoing Committee Chair)
Alfred State College

Term of Office: July 1, 2000 - June 30, 2002

Richard Austing
University of Maryland, University College (retired)

Term of Office: July 1, 2000 - June 30, 2001

Robert D. Campbell (incoming Committee Chair)
Rock Valley College

Term of Office: July 1, 2001 - June 30, 2003

C. Fay Cover
Sun Microsystems

Term of Office: July 1, 2000 - June 30, 2002

Elizabeth K. Hawthorne
Union County College

Term of Office: July 1, 2001 – June 30, 2003

1.2 Committee Charter:

The Two-Year College Education Committee is a standing committee of the ACM Education Board. The Committee is concerned with all education issues that affect computing at two-year colleges and in two-year degree programs. The primary purpose of the Committee is to provide curriculum recommendations in all areas of computing for such degree programs. The Committee may also make recommendations on other educational matters affecting such programs.

The voting membership of the Committee shall be the Chair, plus the members-at-large. When possible, the membership shall represent the interest of computing at two-year colleges. The Committee members

are nominated by the Committee Chair and appointed by the Chair of the ACM Education Board

1.3 Committee Organization:

The Committee consists of a Chair and three or four other members-at-large.

- Committee Meetings (FY-01):

July 17-22, 2000: The Committee met in Toronto, Canada; Karl Klee, Robert Campbell and Fay Cover were in attendance. The Committee met to plan the upcoming activities for the NSF ATE Grant Project that included a live four-hour videoconference in Denver on September 22, 2000.

September 20-24, 2000: The Committee met in Denver, CO; Karl Klee, Robert Campbell, and Fay Cover were in attendance. The Committee conducted the NSF ATE Grant Project teleconference and discussed associated issues.

October 26-29, 2000: The Committee met in Washington, DC; Karl Klee, Robert Campbell and Fay Cover were in attendance. The Committee presented a poster session on the NSF ATE Grant Project at the NSF ATE PI Conference.

December 17-18, 2000: The Committee participated in the ACM Education Board meeting near Dullus International Airport; Karl Klee and Robert Campbell were in attendance.

February 9-11, 2001: The Committee met in Rockford, IL; Karl Klee, Robert Campbell and Fay Cover were in attendance. The Committee met to make preliminary plans for the TYC CC2001 Project.

February 21-25, 2001: The Committee met in Charlotte, NC in conjunction with the SIGCSE '01 Symposium; Karl Klee and Fay Cover were in attendance. The Committee presented a poster session on the NSF ATE Grant Project and participated in CC2001 meetings. The Committee made plans for the upcoming TYC CC2001 Project workshop meeting.

February 28 – March 4, 2001: The Committee met in Rockford, IL; Karl Klee, Robert Campbell, and Fay Cover were in attendance along with 17 members of the TYC CC2001 Task Force. The Committee conducted the curriculum workshop associated with the TYC CC2001 Project. Three representatives of the CC2001 Steering Committee were also in attendance.

May 3-6, 2001: The Committee met in Denver, CO; Karl Klee, Robert Campbell and Fay Cover were in attendance. The Committee met with the CC2001 Steering Committee in conjunction with its TYC CC2001 Project; also in attendance were sub-group representatives from the TYC CC2001 Task Force.

June 22-25, 2001: The Committee met in Canterbury, England; Karl Klee, Robert Campbell, Fay Cover and Dick Austing were in attendance. The Committee presented the poster session at ITiCSE 2001 and also met with Eric Roberts to work on the TYC CC2001 Project.

2. SUMMARY (FY '01)

2.1 TYC CC2001 Curriculum Project

The Committee proposed a two-year college report to accompany and complement the work being undertaken by the CC2001 Committee. This project was approved and funded by the Education Board, and is referred to hereafter in this report as the TYC CC2001 Project. This project will produce a curriculum report that updates the TYC Ed Committee's 1993 Computing Sciences curriculum guidelines, details specific two-year college implementations of the CC2001 CS Guidelines, and establishes a model approach to the development of curricular guidelines. To date, the Committee has assembled a curriculum task force; conducted the task force workshop that resulted in a draft set of guidelines; met with the CC2001 Steering Committee to present the report; and revised the draft report to respond the feedback we've received and to remain consistent with CC2001 draft reports and evolving philosophy.

Funding source: Education Board - \$17K in FY'01 and \$3K in FY'02.

2.2. NSF ATE Grant Project

Background:

The NSF ATE (Advanced Technology Education) Special Projects (DUE 9909552) A *National Model for Curriculum Adaptation and Implementation* was approved effective September 15, 1999. This project will develop, test, and validate a national model for the adaptation and implementation of an advanced technology curriculum by using the current technologies of satellite teleconferencing and varied Internet resources. Although this project is a Committee initiative, NSF ATE projects must be connected to a two-year college. Hence Pikes Peak Community College was designated as the lead institution with Committee members C. Fay Cover as PI, and Karl Klee and Robert Campbell as Co-PIs. ACM is partnered in the project by providing funding for some of the Committee meetings that deal with this project.

Activities:

The project commenced with a national four-hour satellite teleconference that used the recently published ACM guidelines as a framework for curriculum implementation. Teleconference participants included several representatives from industry, education and professional organizations. The teleconference was viewed by over 100 colleges across the US and Canada; following the event videotapes were distributed to additional colleges. A group of 16 colleges were chosen via a competitive process to receive seed grants for implementing new or revised networking programs. Those colleges are in the process of submitting final reports on the success of their endeavors. A final report will be compiled and submitted to NSF in Fall 2001.

Funding sources: NSF \$45,633 (primarily in FY '01); Industry partners \$25K; and Committee budgeted funds.

- SDF Curricular Guidelines Project

The Committee produced the *Guidelines for Associate-Degree Programs to Support Computing in a Networked Environment* in 2000. Those *Guidelines* provided the impetus for the NSF ATE Project detailed above. In addition to that effort, the Committee has continued to support the distribution and implementation of these *Guidelines* through a variety of activities, including:

- ITiCSE 2001: The Committee submitted a panel proposal for the ITiCSE 2001 entitled: *A National Model for Curriculum Adaptation and Implementation*. The ITiCSE 2001 Program Committee chose to accept this proposal as a poster session, which we presented in Summer, 2001, in conjunction with a scheduled Committee meeting, as part of our dissemination efforts for the curricular guidelines produced by the Committee in 2000. (Funding sources: budgeted Committee funds and personal funds)
- NSF ATE PI Conference: The Committee participated in the NSF ATE PI Conference by conducting a poster session, as part of its dissemination efforts for the curricular guidelines produced by the Committee in 2000. (Funding source: NSF)
- SIGCSE '01 Symposium: The Committee participated in the SIGCSE '01 Symposium by conducting a poster session, in conjunction with a scheduled Committee meeting, as part of its dissemination efforts for the curricular guidelines produced by the Committee in 2000. (Funding sources: budgeted Committee funds, personal funds, and employer funds)

- CRAFTY Report

Committee members participated in the Math CRAFTY workshops conducted as a joint project by the MAA (Mathematics Association of America) and AMATYC (The American Mathematical Association for Two-Year Colleges), concluding in a draft report on the mathematics skills needed in the two-year college curriculum to support IT programs.

(Funding source: NSF)

2.5 Committee Web Pages:

The Committee re-designed its website (www.acmtyc.org), hosted at Rock Valley College and accessible from the ACM Education page. The website facilitates the work of the Committee, provides a means for information access by and dissemination to the Committee's constituents, serves the goals and objectives of the Committee's various projects (including the NSF ATE grant project and the TYC CC2001 curriculum project), and provides access to historical and archival resources.

(Funding source: budgeted Committee funds)

3. PLANS (FY '02)

1. NSF ATE Grant Project

As noted above, the Committee is in the process of concluding its work on the NSF ATE Grant Project. This fall the Committee will compile the final reports now being submitted by the seed grant colleges and will compose a final report to submit to NSF.

2. TYC CC2001 Project

The Committee is in the process of finalizing the draft TYC CC2001 guidelines for distribution to reviewers. Following the review process, the final report will be produced and distributed, followed by a series of dissemination and implementation efforts.

3. Committee Web Pages (www.acmtyc.org):

The Committee will continue to update and expand the Committee's web pages, including the pages associated with the newly-established website that will facilitate the many activities associated with the NSF ATE grant. This site will feature results from this project, including model networking programs, curriculum materials, and other pertinent information.

3.4 Curriculum Development:

The Committee is in the planning stage for the following projects:

- Updating the *Computing and Information Processing* guidelines within the *Computing Curricula Guidelines for Associate-Degree Programs* that were published by ACM Press in 1993, via two-year college participation in the IS97 updating effort being spearheaded by AIS.
- Updating the *Computer and Engineering Technology* guidelines within the *Computing Curricula Guidelines for Associate-Degree Programs* that were published by ACM Press in 1993, via two-year college participation in the CE updating effort being spearheaded by IEEE-CS.
- Establishing software engineering transfer guidelines, via two-year college participation in the SE curricular guidelines effort being spearheaded by IEEE-CS.

3.5 Student Issues:

The Committee continues to deal with the very important topic of Vertical Integration Negotiation in the context of a variety of projects. This will include not only the CC2001 project, but also between programs in high schools, two-year colleges, and four-year colleges, including issues related to distance education courses, college courses taught in the high schools, and vendor-specific certification coursework. The Committee also intends to pursue issues associated with the "returning" students in the two-year college environment and will try to make an explicit connection with the K-12 group within ACM.

4. COMMENTS

No comments at this time.

Addendum

Contact information for Committee members is listed below:

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