

PROJECT ADMINISTRATION DATA SHEET



ORIGINAL



REVISION NO. _____

Project No. E-15-514

GTRI/~~XXX~~

DATE 10 03 / 83

Project Director: Dr. Denney W. Freeston

School/~~Ltr~~ Dean of Engineering

Sponsor: NASA, Langley Research Center

Type Agreement: Contract No. NAS1-17545

Award Period: From 9/22/83 To 9/21/84 (Performance) 9/21/84 (Reports)

Sponsor Amount: This Change Total to Date

Estimated: \$ _____ \$ _____

Funded: \$ 75,000 \$ 75,000

Cost Sharing Amount: \$ _____ Cost Sharing No: _____

Title: Summer Technological Institute

ADMINISTRATIVE DATA

OCA Contact Frank Huff X4820

1) Sponsor Technical Contact:

Ms. Janet M. McKenzie

Mail Stop 178

NASA, Langley Research Center

Hampton, VA 23665

(804) 827-3487

2) Sponsor Admin/Contractual Matters:

Charley L. Crowder

NASA, Langley Research Center

Hampton, VA 23665

(804) 827-2536

Defense Priority Rating: N/A

Military Security Classification: N/A

(or) Company/Industrial Proprietary: _____

RESTRICTIONS

See Attached _____ Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval — Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.

Equipment: Title vests with N/A; none proposed.

COMMENTS:

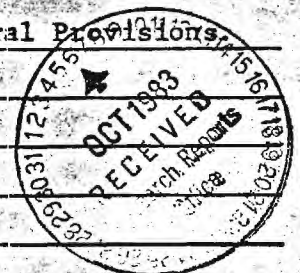
100% of this contract is to be subcontracted to SECME including General Provisions.

COPIES TO:

Project Director
Research Administrative Network
Research Property Management
Accounting

Procurement/EES Supply Services
Research Security Services
Reports Coordinator (OCA)
Research Communications ("")

GTRI
Library
Project File
Other I. Newton



GEORGIA INSTITUTE OF TECHNOLOGY

OFFICE OF CONTRACT ADMINISTRATION

SPONSORED PROJECT TERMINATION/CLOSEOUT SHEET

Date11/27/84

Project No.E-15-514School/XXXDean of Engineering

Includes Subproject No.(s)None

Project Director(s)Dr. Denney W. FreestonGTRC / XXX

SponsorNASA - Langley Research Center, Hampton, VA 23665

TitleSummer Technological Institute

Effective Completion Date:9/21/84(Performance)9/21/84(Reports)

Grant/Contract Closeout Actions Remaining:

- ☐ None
- ☒ Final Invoice or Final Fiscal Report
- ☒ Closing Documents
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other

Continues Project No.

Continued by Project No.

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OtherM. Heyser
A. Jones

Carolyn C. Chesnutt
Executive Director
c/o Georgia Institute
of Technology
Atlanta, GA 30332
404/894-3314.

Southeastern Consortium for Minorities in Engineering

SECME Members Engineering Colleges of:

Auburn University
Auburn, AL 36830
University of Alabama
Huntsville, AL 35807
The University of Alabama
Tuscaloosa, AL 35486
Tuskegee Institute
Tuskegee, AL 36083
Howard University
Washington, DC 20059
Florida Institute of Technology
Melbourne, FL 32901
University of Central Florida
Orlando, FL 32816

University of Florida
Gainesville, FL 32611
University of South Florida
Tampa, FL 32816
Georgia Institute of Technology
Atlanta, GA 30332
The University of Georgia
Athens, GA 30602
Southern University
Baton Rouge, LA 70813
North Carolina A & T State Univ.
Greensboro, NC 27411
North Carolina State University
Raleigh, NC 27607
Old Dominion University
Norfolk, VA 23508

The Citadel
Charleston, SC 29409
Clemson University
Clemson, SC 29631
University of South Carolina
Columbia, SC 29208
Christian Brothers College
Memphis, TN 38104
Memphis State University
Memphis, TN 38152
Tennessee State University
Nashville, TN 37203
University of Tennessee
Knoxville, TN 37916
University of Tennessee-Chattanooga
Chattanooga, TN 37402

Dr. W. D. Freeston
Associate Dean
College of Engineering
Georgia Institute of Technology
Atlanta, GA 30332

RE: E-15-514

Dear Dr. Freeston:

Enclosed is a pre-planning calendar for the 1984 SECME Summer Institute. During the period September 23 through December 22, 1983, planning meetings were held with personnel from the University of Georgia. The curriculum component of the institute was selected and outlined. We anticipate a timely adherence to the projected schedule.

Thank you for your support.

Sincerely,

Carolyn C. Chesnutt

C³:cp

Enclosure



c/o Georgia Institute of Technology
Atlanta, Georgia 30332
404/894-3314

SECME SUMMER INSTITUTE 1984
Pre-Planning Calendar

- November 1 - University of Georgia
- November 15 - Select Educational Component or Curriculum Area of Emphasis
- January 15 - Draft Daily Program
- January 20 - Select or Identify Master Teachers
- February 1 - Identify Speakers, Consultants, Panelists
- February 15 - Mail Summer Institute Brochure
 - Send Program Directors Information and Nomination Forms
- March 1 - Meet With University of Georgia and Master Teachers
 - Request Teacher of the Year Nominations
 - Send for Resource Information and Curriculum Materials
- March 15 - Process Nominations Received
- March 22 - Place Orders for Modules and Notebooks
- April 16 - Invite Special Guests
 - Deadline for Teacher of the Year Nominations
 - Acceptance/Denial Letters Mailed
- April 23 - Make Hotel Reservations for Special Guests
- May 1 - Selection of Teacher of the Year Finalized
- May 8 - Send Master Copies of Handouts, etc. to University of Georgia for Duplication
- June 1 - Make Final Changes in Printed Program
- June 17 1:30 p.m. - Staff Meeting for Planning



March 22, 1984

Carolyn C. Chesnutt
Executive Director
c/o Georgia Institute
of Technology
Atlanta, GA 30332
404/894-3314.

**Southeastern
Consortium
for
Minorities
in
Engineering**

**SECME Members
Engineering Colleges of:**

University of Alabama
Huntsville, AL 35807
The University of Alabama
Tuscaloosa, AL 35486
Tuskegee Institute
Tuskegee, AL 36083
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Melbourne, FL 32901
University of Central Florida
Orlando, FL 32816
University of Florida
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Chattanooga, TN 37402

Dr. W. D. Freeston
Associate Dean
College of Engineering
Georgia Institute of Technology
Atlanta, GA 30332

RE: E-15-514

Dear Dr. Freeston:

Plans for the 1984 SECME Summer Technological Institute are progressing well. To date, the responsibilities for the institute have been assigned, faculty and staff members have been identified and logistical details have been mapped out. The off-campus and on-campus facilities, special meals, tours and transportation arrangements have been made. Two planning sessions have been held on the campus of the University of Georgia since January. The university liaison, William Zietler and Anne Wilson, SECME institute coordinator, have met twice. Cooperative planning with the Division of Engineering and Department of Science Education at the University of Georgia has been problem free and very timely.

Enclosed is a copy of the brochure which has been mailed to all SECME school systems. We look forward to another successful summer institute.

Thank you for your continued support.

Sincerely,

Carolyn C. Chesnutt

C³:sk

Enclosure



Invoice Date: March 22, 1984

Carolyn C. Chesnutt
Executive Director
c/o Georgia Institute
of Technology
Atlanta, GA 30332
404/894-3314.

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Chattanooga, TN 37402

Dr. W. D. Freeston
Principal Investigator
College of Engineering
Georgia Institute of Technology

INVOICE

Subcontract #:

E-15-514

Period Covered:

December 23, 1983 to March 22, 1984

Amount:

\$18,132.50

Payable to:

Southeastern Consortium for Minorities
in Engineering, Inc.

The 1984 SECME Technological Institute was held on the campus of the University of Georgia in Athens from June 17 through June 28. Sixty-four secondary school teachers, counselors and administrators participated in the eleven day graduate level training program. Feedback received from prior summer institute participants, other SECME teachers and administrators across the southeastern region played a major role in the design of the institute.

"Enriching Teaching Skills Through Applied Engineering Concepts" was the institutes' theme. The goal for the institute was to expose the participants to problem solving approaches used by engineers and to demonstrate how the same approaches may be used in the secondary school classrooms. The participants were grouped according to their teaching areas and required to participate in the three institute component areas, the curriculum component, computer component and engineering laboratories.

The curriculum component was led by SECME masters teachers under the coordination of the University of Georgia Department of Science Education faculty. During the curriculum sessions, participants were taught how to use the NCSD (National Coordinating Center for Curriculum Development) modules as supplementary materials. They were also taught the SECME teaching philosophy which emphasizes the importance of real life applications of subject matter and the interdisciplinary approach. One of the requirements for each participant was the development and presentation of a unit of instruction which employs the SECME teaching method.

The computer component was led by faculty members from the University of Georgia College of Education Computer Assisted Learning Center. In these sessions, participants were taught how to use curriculum software and were required to demonstrate a level of proficiency in the operation of the microcomputer. This provided a wide opportunity for the exchange of software among the participants. The curriculum software available through SECME was requested by many participants as an addition to their schools' curriculum resource center. Each participant was required to show how the skills acquired in the computer sessions would be used to enhance their teaching and their local SECME program.

The engineering laboratories provided a more indepth experience than had been offered at prior summer institutes. As a major part of the summer institute, the engineering laboratories were structured to serve as a carry over from the curriculum component. Each disciplinary group was required to actively participate in four 90 minute engineering laboratory activities. They used engineering apparatus and instruments in the engineering environments. The engineering sessions were led by faculty members in the University of Georgia Department of Agricultural engineering.

To ensure close coordination of the institute components, session leaders, master teachers other university faculty members and SECME staff held pre-planning meetings and visited the University of Georgia facilities together prior to the opening of the institute. These pre-planning sessions helped to bring continuity to the institute components and contributed greatly to the success of the institute.

In addition to the curriculum component, computer component and engineering laboratories, other engineering career awareness activities were sponsored. An all day field trip to Lockheed Aircraft Company in Marietta, Georgia gave a glimpse into the real world of engineering. Other highlights of the institute were the panel discussions. There were two panel discussions. The first featured a panel of minority engineers who are employed by SECME member companies. The second panel presentation featured SECME alumni, (SECME high school graduates) who are now studying engineering. On both occasions, the interaction of the panelists and institute participants proved to be very enlightening and informative.

The warm rapport which existed among the institute leaders was very evident in the high level of cooperation. Dr. Robert H. Brown, Chairman, Department of Agricultural Engineering at the University of Georgia and Dr. David Butts, Chairman, Department of Science Education, University of Georgia, served as co-directors for the institute. Dr. William Zeitler, faculty member in the Department of Science Education, University of Georgia, served as the liaison for the University of Georgia to the SECME staff. Anne Wilson, Assistant Director of SECME, had the responsibility for the overall planning and coordination of the institute.

The SECME staff and institute participants were housed at the Athens, Georgia Ramada Inn located only a few blocks from the university campus. The close proximity of the hotel to the campus and the University of Georgia transportation system permitted the participants to work in the computer laboratories in the evenings and to take advantage of the other support facilities at the university.

In order to monitor the progress of the institute and the attitudes of the participants, a periodic survey was made. Feedback forms were distributed to each participant and tabulated so that the results could be used in the daily staff meeting and planning sessions. This feedback was very valuable in dictating any necessary program changes. Overall, the feedback was very positive. It showed growth and maturity among the participants as the institute progressed. A breakdown of the survey results is attached to this report. These results are also being used in preparation of the 1985 SECME Summer Technological Institute.

1984 Summer Institute Evaluation

The SECME Summer Technological Institute was held on the campus of the University of Georgia in Athens, Georgia from June 17-28, 1984. Sixty-four teachers, counselors and administrators represented six states in the southeastern region.

These participants were a group of dedicated educators and have been recognized for their achievements in education. The average number of years these educators have taught is 12.9 years. Thirty-three percent of the '84 participants have been teaching for more than sixteen years. One teacher was recognized by President Reagan as she received the Presidential Award of Excellence sponsored by the National Science Foundation. Six other teachers were recognized by their schools as "Outstanding Teacher of the Year." Several participants represented their educational associations in various capacities on the county and state level. These characteristics are typical of those who attended previous Summer Institutes.

Participants spent ten days attending sessions about SECME and engineering concepts. The instructional, engineering, and microcomputer labs were ranked as the most beneficial sessions. These participants stated that the information received from Summer Institute, particularly the ideas shared by other SECME teachers, the orientation to the microcomputer and curriculum modules will be most useful in developing their course curriculum.

Participants made several recommendations for improving Summer Institute. Their recommendations are given below:

PLANNING

1. Plan a separate group for counselors
2. Provide more information for teachers before Summer Institute
3. Carefully screen Master Teachers
4. Reduce number of speakers; allow for more input from teachers
5. Plan one more field trip

SCHEDULING

1. Tour campus of hosting institution
2. Shorten days
3. Shorten engineering labs; demonstrations by engineers are sufficient for non-science participants
4. Schedule an "active session" the hour after lunch
5. Plan one meeting that would be optional
6. Consider logistics of campus; make sure participants are in walking distance of eating facilities

INSTRUCTION

1. Give better instructions for implementation plans
2. Allow time for teachers to exchange ideas with other curriculum groups
3. Improve Microcomputer Session
 - a. Allow time to review SECME software
 - b. More hands-on experience
 - c. More guidance; smaller classes
 - d. Instead of exposing teachers to four different systems, allow them to concentrate on the microcomputer their school owns (ask for this info on registration forms)
 - e. Offer one session to introduce programming languages
 - f. More information on the Commodore-64

SECME PROGRAMS

Participants stated the average number of years their school had a SECME program was 3.9 years. Six was the average number of people on a SECME team.

What type of impact has SECME had in your school?

- * Positive approach to excellence in education
- * SECME created an awareness in engineering
- * Raised the number of students taking college prep math and science; attending college
- * Stronger emphasis has been placed on math and science; a new calculus course; increased enrollment in Algebra I
- * Number of students has tripled in past three years entering technical fields
- * Excellent! Two students in engineering
- * Initiated a pre-engineering program
- * Enabled students to compete in engineering projects and science fairs

What would make your program more successful?

- * More involvement of the entire school
 - In-service on the use of modules for the SECME team
 - More teachers attending SI from school
 - Retraining
 - Implementation of a SECME Club
 - Better tracking of SECME students
- * More community involvement from parents and industry
- * More assistance from school administration
- * Continuous expansion of SECME program
 - More involvement of high schools
 - Improved communications with SECME office
 - Better organization of program in school system
- * More assistance from Program Director
- * Time

PARTICIPANT CHARACTERISTICS (N = 64)

<u>State</u>		<u>Current Position</u>		<u>Grade Level</u>	
Alabama	15	Teachers	49	6-8	20
Florida	4	Math	19	9-12	39
Georgia	19	Science	25	6-12	5
N. Carolina	13	L. Arts	5		
S. Carolina	4	Counselors	13		
Tennessee	9	Administrators	1		
		Media Specialist	1		

<u>Sex</u>		<u>Race</u>		<u>Total Taking Credit</u>		
Female	53	Black	40	Recertif.	23	
Male	11	Caucasian	21	Grad. Degree	11	
		Native American	3	Other	17	51

Average Age - 38.3 years

Average Number of Years Taught - 12.9 years

Engineering Awareness Survey

Engineering Awareness - Raw Score Means

Pre-Test 37.71
Post-Test 44.23

Attitude Toward Engineering - Raw Score Means

Pre-Test 8.62
Post-Test 14.58

PARTICIPANT EVALUATIONS OF SESSIONS*

Engineering Labs

Soil Moisture	3.57
Sorting Seeds	4.41
Fluid Mechanics	4.46
Loads on Structures	4.36

Microcomputer Labs

Word Processing on the Vector	4.59
Applications on the Apple	3.74
Management on the Apple	4.72
Applications on Plato	4.79

General Sessions

Minorities in Engineering Effort/Evolution of SECME	3.93
Engineering Dependency Upon Science	4.06
Focus on Classroom Tests, Educational Testing Service	3.50
Presentation of Selected Implementation Plans	4.51

Topics Learned

Learning about engineering from minority speakers	4.75
Learning about opportunities for minorities in engineering	4.73
Learning about university procedures for working with minority engineering students	4.40
Increased knowledge of engineering	4.62
Level of personal interest in encouraging minorities to go into engineering	4.84

Other Components

Speakers

Robert Cannon	4.36
Gil Lopez	4.60
Howard Adams	4.65

Panel Discussions

Student Panel	4.68
Panel of Engineers	4.89

Tours

Lockheed Aircraft	4.64
Engineering Applications in Agriculture	4.39

Personnel

UGA Staff	4.93
UGA Faculty	4.76
SECME Master Teachers	4.39
SECME Staff	4.80

Accommodations

Housing	4.67
Meals	4.45
Banquet	4.65
Transportation	4.45

*Average scores based on 1 to 5 with 5 being the highest

1984
SECME
SUMMER
TECHNOLOGICAL
INSTITUTE

Jointly Sponsored by

The University of Georgia
Department of Science Education
Department of Agricultural Engineering

and

The Southeastern Consortium for Minorities
in Engineering

1984 SUMMER INSTITUTE AGENDA

"Enriching Teaching Skills Through Applied Engineering Concepts"

SUNDAY, June 17, 1984

<u>Time</u>	<u>Event</u>	<u>Location</u>
1:30 - 5:30 p.m.	Registration and Conference Pre-Assessment	Ramada Inn
5:30 - 6:00 p.m.	Shuttle to Pine Crest	
6:00 - 6:45 p.m.	Social Hour	Get acquainted - Groups assigned
6:45 - 9:00 p.m.	Dinner Anne Wilson, Presiding Welcome and Introductions Institute Overview	Welcome Grice Introducer - SECME University

MONDAY, June 18, 1984

SECME: A Model for Educational Excellence

8:00 - 8:15 a.m.	Shuttle to Driftmier Center	
8:15 - 10:15 a.m.	General Session Dr. Robert H. Brown, Presiding Chairman, Division of Agricultural Engineering University of Georgia SECME University Council Member	Driftmier Conference Room
	Welcome Dr. Virginia Trotter Vice President for Academic Affairs University of Georgia	Driftmier Conference Room
	Presentations Minorities in Engineering Effort Dr. Joseph Biedenbach, Chairman Elect SECME Board of Directors	Driftmier Conference Room
	Evolution of SECME Ms. Carolyn C. Chesnutt, Executive Director SECME	
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby

<u>Time</u>	<u>Event</u>	<u>Location</u>
10:30 - 12:00 Noon	General Meeting Dr. David Butts, Presiding Chairman, Department of Science Education University of Georgia	Driftmier Conference Room
12:00 - 1:15 p.m.	LUNCH (On Your Own)	
1:15 - 2:30 p.m.	Engineering Laboratories	Driftmier Center
	Group A - Dr. Chesness - Soil Moisture	Room 217
	Group B - Dr. Clark - Sorting Seeds	Room 221
	Group C - Dr. Schottman - Fluid Mechanics	Room 215
	Group D - Dr. Thompson - Structural Stress	Room 211
2:30 - 2:45 p.m.	BREAK	Driftmier Lobby
2:45 - 4:00 p.m.	Continued Engineering Laboratories	
4:00 - 4:45 p.m.	Curriculum Group Meetings with Master Teachers	Driftmier Center
	Group A - Ms. Carithers	Room 208
	Group B - Ms. Hale	Room 213
	Group C - Ms. Livingston	Room 305
	Group D - Mr. Marshall	Room 310
4:45 - 5:00 p.m.	Shuttle to Ramada Inn	
5:00 - 6:45 p.m.	DINNER (On Your Own)	
6:45 - 7:00 p.m.	Shuttle to Aderhold Hall	
7:00 - 9:00 p.m.	Computer Laboratories	Aderhold Hall
	Group A - Dr. Eisele - Word Processing on the Vector	Room 228
	Group B - Dr. King - Instructional Applications on the Apple	Room 227
	Group C - Dr. Okey - Instructional Management on the Apple	Room 229
	Group D - Dr. Padilla - Instructional Applications on PLATO	Room 223
9:00 - 9:15 p.m.	Transportation -- Aderhold Hall to Ramada Inn	

TUESDAY, June 19, 1984

SECME: Removing the Risk in Teacher Education

<u>Time</u>	<u>Event</u>	<u>Location</u>
8:00 - 8:15 a.m.	Shuttle to Driftmier	
8:15 - 8:30 a.m.	Connect Time	Driftmier Conference Room
8:30 - 10:15 a.m.	Instructional Laboratories Group A - Ms. Carithers Group B - Ms. Hale Group C - Ms. Livingston Group D - Mr. Marshall	Driftmier Center Room 208 Room 213 Room 305 Room 310
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby
10:30 - 11:45 a.m.	Continued Instructional Laboratories	
11:45 - 12:00 Noon	Shuttle to Tate Center	
12:00 - 1:30 p.m.	Luncheon Dr. Robert Cannon, Speaker Assistant Vice Chancellor Georgia Board of Regents	Tate Center
1:30 - 1:45 p.m.	Shuttle to Driftmier	
1:45 - 3:00 p.m.	Engineering Laboratories Group A - Dr. Thompson - Loads on Structures Group B - Dr. Chesness - Soil Moisture Group C - Dr. Clark - Sorting Seeds Group D - Dr. Schottman - Fluid Mechanics	Driftmier Center Room 211 Room 217 Room 221 Room 215
3:00 - 3:15 p.m.	BREAK	Driftmier Lobby
3:15 - 4:45 p.m.	Continued Engineering Laboratories	
4:45 - 5:00 p.m.	Shuttle to Ramada Inn	
5:00 - 6:45 p.m.	DINNER (On Your Own)	
6:45 - 7:00 p.m.	Shuttle to Aderhold Hall	

<u>Time</u>	<u>Event</u>	<u>Location</u>
7:00 - 9:00 p.m.	Computer Laboratories	Aderhold Hall
	Group A - Dr. Padilla - Instructional Applications on PLATO	Room 223
	Group B - Dr. Eisele - Word Processing on the Vector	Room 228
	Group C - Dr. King - Instructional Applications on the Apple	Room 227
	Group D - Dr. Okey - Instructional Management on the Apple	Room 229
9:00 - 9:45 p.m.	Transportation - Aderhold Hall to Ramada Inn	

WEDNESDAY, June 20, 1984

SECME: A Problem Solving Approach

8:00 - 8:15 a.m.	Shuttle to Driftmier	
8:15 - 8:30 a.m.	Connect Time	Driftmier Conference Room
8:30 - 10:15 a.m.	Instructional Laboratories	Driftmier Center
	Group A - Ms. Carithers	Room 208
	Group B - Ms. Hale	Room 213
	Group C - Ms. Livingston	Room 305
	Group D - Mr. Marshall	Room 310
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby
10:30 - 12:00 Noon	Panel of Minority Engineers	Driftmier Conference Room
	Eric Branch, Olin Chemical Group	
	Harold Conner, Martin Marietta Energy Systems	
	Bernard Davis, International Paper Company	
	Valerie Dial, Georgia Power Company	
	Aaron Henderson, Southern Bell	
	Verlyn Lowery, Procter & Gamble	
	Carl Gardiner, IBM Faculty Loan SECME staff; Moderator	
12:00 - 1:15 p.m.	LUNCH (On Your Own) - Transportation	
1:15 - 4:00 p.m.	Field Trip: Engineering Applications in Agricultural Engineering	Driftmier Center

? Break

<u>Time</u>	<u>Event</u>	<u>Location</u>
4:00 - 4:15 <i>4:15 - Break</i>		
4:00 - 4:45 <i>4:15 - 4:45</i> p.m.	Curriculum Group Meeting with Master Teachers	Driftmier Center
	Group A - Ms. Carithers	Room 208
	Group B - Ms. Hale	Room 213
	Group C - Ms. Livingston	Room 305
	Group D - Mr. Marshall	Room 310
4:45 - 5:00 p.m.	Shuttle to Ramada Inn	
5:00 - 6:45 p.m.	DINNER (On Your Own)	
6:45 - 7:00 p.m.	Shuttle to Aderhold Hall	
7:00 - 9:00 p.m.	Computer Laboratories	Aderhold Hall
	Group A - Dr. Okey - Instructional Management on the Apple	Room 229
	Group B - Dr. Padilla - Instructional Applications on PLATO	Room 223
	Group C - Dr. Eisele - Word Processing on the Vector	Room 228
	Group D - Dr. King - Instructional Applications on the Apple	Room 227
9:00 - 9:45 p.m.	Transportation - Aderhold Hall to Ramada Inn	

THURSDAY, June 21, 1984

SECME: Providing the Building Skills

8:00 - 8:15 a.m.	Shuttle to Driftmier	
8:15 - 8:30 a.m.	Connect Time	Driftmier Conference Room
8:30 - 10:15 a.m.	General Session Dr. Robert Brown, Speaker Topic: "Engineering Dependency Upon Science"	Driftmier Conference Room
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby
10:30 - 12:00 Noon	Instructional Laboratories	Driftmier Center
	Group A - Ms. Carithers	Room 208
	Group B - Ms. Hale	Room 213
	Group C - Ms. Livingston	Room 305
	Group D - Mr. Marshall	Room 310
12:00 - 1:15 p.m.	LUNCH (On Your Own) - <i>Transportation</i>	

<u>Time</u>	<u>Event</u>	<u>Location</u>
1:15 - 2:30 p.m.	Engineering Laboratories Group A - Dr. Schottman - Fluid Mechanics Group B - Dr. Thompson - Loads on Structures Group C - Dr. Chesness - Soil Moisture Group D - Dr. Clark - Sorting Seeds	Driftmier Center Room 215 Room 211 Room 217 Room 221
2:30 - 2:45 p.m.	BREAK	Driftmier Lobby
2:45 - 4:00 p.m.	Continued Engineering Laboratories	
4:00 - 4:45 p.m.	Curriculum Group Meeting with Master Teachers Group A - Ms. Carithers Group B - Ms. Hale Group C - Ms. Livingston Group D - Mr. Marshall	Driftmier Center Room 208 Room 213 Room 305 Room 310
4:45 - 5:00 p.m.	Shuttle to Ramada Inn	
5:00 - 6:45 p.m.	DINNER (On Your Own)	
6:45 - 7:00 p.m.	Shuttle to Aderhold Hall	
7:00 - 9:00 p.m.	Computer Laboratories Group A - Dr. King - Instructional Applications on the Apple Group B - Dr. Okey - Instructional Management on the Apple Group C - Dr. Padilla - Instructional Applications on PLATO Group D - Dr. Eisele - Word Processing on the Vector	Aderhold Hall Room 227 Room 229 Room 223 Room 228
9:00 - 9:45 p.m.	Transportation - Aderhold Hall to Ramada Inn	

FRIDAY, June 22, 1984

SECME: Exploring Beyond Our Bounds

8:00 - 8:15 a.m.	Shuttle to Driftmier	
8:15 - 8:30 a.m.	Connect Time	Driftmier Conference Room

<u>Time</u>	<u>Event</u>	<u>Location</u>
8:30 - 10:15 a.m.	Instructional Laboratories Group A - Ms. Carithers Group B - Ms. Hale Group C - Ms. Livingston Group D - Mr. Marshall	Driftmier Center Room 208 Room 213 Room 305 Room 310
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby
10:30 - 11:45 a.m.	Continued Instructional Laboratories	
11:45 - 12:00 Noon	Shuttle to Holiday Inn	
12:00 - 1:30 p.m.	Luncheon Gil Lopez, Leader Director, New York City's Comprehensive Math and Science Program	Holiday Inn
1:30 - 1:45 p.m.	Shuttle to Driftmier	
1:45 - 3:30 p.m.	Engineering Laboratories Group A - Dr. Clark - Sorting Seeds Group B - Dr. Schottman - Fluid Mechanics Group C - Dr. Thompson - Loads on Structures Group D - Dr. Chesness - Soil Moisture	Driftmier Center Room 221 Room 215 Room 211 Room 217
3:30 - 3:45 p.m.	BREAK	Driftmier Lobby
3:45 - 4:30 ^{4:45 P} p.m.	Curriculum Group Meeting with Master Teachers Group A - Ms. Carithers Group B - Ms. Hale Group C - Ms. Livingston Group D - Mr. Marshall	Driftmier Center Room 208 Room 213 Room 305 Room 310
4:30 - 4:45 ^{4:45 - 5:00} p.m.	Shuttle to Ramada Inn	
4:45 - 7:00 p.m.	DINNER (On Your Own)	
7:00 p.m.	Participant Planned Party	Ramada Inn

TimeEventLocationSATURDAY, June 23, 1984

<u>Time</u>	<u>Event</u>	<u>Place</u>
8:30 - 9:30 a.m.	Curriculum Group Meeting with Master Teachers	Aderhold Hall
	Group A - Ms. Carithers	Room 211
	Group B - Ms. Hale	Room 213
	Group C - Ms. Livingston	Room 215
	Group D - Mr. Marshall	Room 216
9:30 - 11:30 a.m.	Independent Study	
11:30 a.m.	Open Schedule	

11:30 a.m. - 1:30 p.m. Transportation

SUNDAY, June 24, 1984

OPEN SCHEDULE

MONDAY, June 25, 1984

SECME: Applying Theories and Concepts

7:45 - 8:00 a.m.	Load Buses for Lockheed Aircraft Marietta, Georgia	Ramada Inn
8:00 - 4:30 p.m.	Field Trip to Lockheed Aircraft	
4:30 p.m.	Return to Ramada Inn	
4:30 - 6:45 p.m.	Free Time, DINNER (On Your Own)	
6:45 - 7:00 p.m.	Shuttle to Aderhold Hall	
7:00 - 9:00 p.m.	Computer Labs Individualized Sessions	Aderhold Hall
9:00 - 9:15 p.m.	Transportation - Aderhold Hall to Ramada Inn	

<u>Time</u>	<u>Event</u>	<u>Location</u>
<u>TUESDAY, June 26, 1984</u>		
SECME: Focus on Teaching and Testing		
8:00 - 8:15 a.m.	Shuttle to Driftmier	
8:15 - 8:30 a.m.	Connect Time	Driftmier Conference Room
8:30 - 10:15 a.m.	General Session "Teaching and Testing Critical Teaching Skills; Focus on Classroom Tests" Leader: Dr. Charlynn Robinson, Director, High Education Outreach, Educational Testing Service	Driftmier Conference Room
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby
10:30 - 12:00 Noon <i>11:45 a.m. set up time for lunch</i>	Small Group Workshops Hands-on Experience in Item Writing	Driftmier Conference Room
12:00 - 1:45 p.m. <i>Break down time after lunch</i>	LUNCH	Driftmier Conference Room
1:45 - 2:45 p.m.	Meeting with Program Directors, Engineering Faculty Consultants and Industry Consultants	Driftmier Conference Room
2:45 - 3:00 p.m.	BREAK	Driftmier Lobby
3:00 - 4:00 p.m.	Individualized Assistance with Implementation Plans	Driftmier Conference Room
4:00 - 4:45 p.m.	Curriculum Group Meetings with Master Teachers Group A - Ms. Carithers Group B - Ms. Hale Group C - Ms. Livingston Group D - Mr. Marshall	Driftmier Center Room 208 Room 213 Room 305 Room 310
4:45 - 5:00 p.m.	Shuttle to Ramada Inn	
5:00 - 6:45 p.m.	DINNER (On Your Own)	
6:45 - 7:00 p.m.	Shuttle to Aderhold Hall	

<u>Time</u>	<u>Event</u>	<u>Location</u>
7:00 - 9:00 p.m.	Computer Labs Individualized Sessions	Aderhold Hall
9:00 - 9:15 p.m.	Transportation - Aderhold Hall to Ramada Inn	

WEDNESDAY, June 27, 1984

SECME: The Proof of the Pudding

8:00 - 8:15 a.m.	Shuttle to Driftmier	
8:15 - 8:30 a.m.	Connect Time	Driftmier Conference Room
8:30 - 10:15 a.m.	General Session Speaker -- Michael Bowie, Director, Space Shuttle Student Involvement Program, National Aeronautics and Space Administration Headquarters, Washington, DC	Driftmier Conference Room
10:15 - 10:30 a.m.	BREAK	Driftmier Lobby
10:30 - 12:15 p.m.	Curriculum Groups (to complete implementation plans and make final plans for presentation) Group A - Ms. Carithers Group B - Ms. Hale Group C - Ms. Livingston Group D - Mr. Marshall	Driftmier Center Room 208 Room 213 Room 305 Room 310
12:15 - 1:45 p.m.	LUNCH Panel: SECME Engineering Students	Driftmier Conference Room
1:45 - 2:00 p.m.	BREAK	
2:00 - 3:30 p.m.	General Session SECME Programs Highlighted Presentation of Implementation Plans - Hall to Ramada	Driftmier Conference Room
3:00 - 3:45 p.m.	BREAK	Driftmier Lobby
4:15 3:45 - 5:00 p.m.	Curriculum Media Fair	Driftmier Conference Room

<u>Time</u>	<u>Event</u>	<u>Location</u>
5:00 ^{4:45} - 5:15 ^{5:00} p.m.	Shuttle to Ramada Inn	
5:15 - 6:00 p.m.	Open	
6:00 ^{6:15} - 6:30 ^{6:45} p.m.	Shuttle to Briarwood	
6:30 ^{6:45} - 7:30 ^{7:30} p.m.	Social Hour	Briarwood
7:30 - 9:30 p.m.	Banquet	Briarwood
	Howard Adams, Keynote Speaker Executive Director, GEM Program	
	Presentation of SECME Scholars	
	Teacher of the Year Awards	
9:30 - 10:00 p.m.	Transportation -- Briarwood to Ramada Inn	

THURSDAY, June 28, 1984

SECME: A Challenge to Begin

Meeting place
at Ramada

8:30 - 9:30 a.m.	Submission of Final Implementation Plans Complete Post Assessment	Ramada Inn
9:30 - 11:00 a.m.	BRUNCH Awarding of Certificates Participant Awards	Ramada Inn
	ADJOURN	

SECME Summer Institute Staff - Brief Biographical Sketches

Institute Leaders

Robert H. Brown, P.E. - Chairman, Division of Agricultural Engineering, University of Georgia, serves as co-director of the Summer Institute. Dr. Brown is the author of two textbooks on engineering and agriculture and has recently completed a handbook on agricultural engineering. He will direct the engineering activities.

David P. Butts - Associate to the Dean for Computer Operations and Chairman of the Department of Science Education, University of Georgia. Dr. Butts will also serve as co-director for the Summer Institute. Dr. Butts has authored five textbooks on teacher education and has served as editor for national and international professional education publications. He will direct the computer curriculum laboratory activities.

William Zeitler - a member of the faculty in the University of Georgia Department of Science Education, Dr. Zietler is director of the National Support Center for Chautaugua-Type Short Courses. The center administers refresher courses in science and engineering. He will serve as the University of Georgia liaison with the SECME staff for the Summer Institute.

Carolyn C. Chesnutt - Executive Director of the Southeastern Consortium for Minorities in Engineering, Inc. since its inception in 1976. Previous experience includes teaching high school mathematics and serving as Assistant to the Dean of Engineering at Georgia Tech with responsibility for developing programs to interest women and minorities in engineering careers. Ms. Chesnutt, vice chair of the National Association of Precollege Directors, serves as liaison from SECME to NACME, is a member of the Committee on Minorities in Engineering and the Committee on Women in Engineering of ASEE (American Society for Engineering Education) and a member of the Society of Women Engineers. She is listed in Who's Who of American Women.

Anne German Wilson - Assistant Director of SECME with responsibility for coordinating school programs and teacher education. She serves as coordinator for the institute. She has served as a classroom teacher at the junior high, high school and college levels. Her experiences as a teacher educator and student teacher supervisor have given her an acute awareness of present-day concerns among classroom teachers and counselors. She has extensive experience as a consultant for in-service workshops and as an evaluator of professional education. Anne is a member of Phi Delta Kappa Fraternity, Kappa Delta Pi and Alpha Kappa Alpha Sorority.

Cynthia Young Smith - Assistant to the Director for SECME with responsibility for data collection, longitudinal studies and program evaluation. Before joining the SECME staff, Ms. Smith was a research associate with the Georgia Board of Regents and assisted in conducting a needs assessment for higher education in Georgia. She is affiliated with the American Planning Association and the Southern Association for Institutional Research and Delta Sigma Theta sorority.

Carl E. Gardiner Jr. - On loan to SECME through IBM's Faculty Loan Program. He joined the SECME staff during the 1983 Summer Institute and has recently been granted an extension of his assignment by IBM to remain with SECME through June of 1985. Carl has been in marketing with IBM for twenty-two years. His most recent IBM assignment was Area Manager-Systems Supplies, National Marketing Division, Dallas, Texas. Responsibilities with SECME include assisting with program development, fund-raising, leadership workshops and local organizations.

Sandra King - Administrative Secretary for the SECME regional office at Georgia Tech, Atlanta, GA. "Sandi", as she is affectionately called, is responsible for central office management including all secretarial duties, student supervision and financial record keeping. Sandi, a native New Yorker, brought to the SECME staff a wide background of experience. She has worked with municipal and regional agencies in the Atlanta area and for the Office of Economic Opportunity in New York.

Helen Carithers - Master Teacher in the area of science serves as Instructional Coordinator for the Mathematics and Science Academy at the Benjamin E. Mays High School in Atlanta. Mays Academy Students have been actively involved in the SECME program since the opening of the school in 1981.

Ms. Carithers has formerly served as a science department chairperson, data collector, independent studies coordinator, National Beta Club Advisor, National Honor Society Advisor, and Teacher of the Year for 1976. She has worked as curriculum writer for Science and Engineering courses with NCCCD at the State University of New York in Stony Brook, Long Island. She has the following affiliations: National Science Teachers Association, Georgia Science Teachers Association, the YWCA, the Kappa Omega Chapter of Alpha Kappa Alpha Sorority, Inc., and the Ben Hill United Methodist Church, where she serves as a Sunday School teacher and Superintendent of the Youth Division.

Rosalind P. Hale - Master Teacher in the areas of mathematics and science for nine years. For the past five years she has served as an instructional specialist for the Mobile County Public School System. She is currently assigned to Mattie T. Blount High School where she coordinates a very successful first year SECME program.

Ms. Hale has served as a resource person for the Mobile Press Register's Newspaper in Education Workshops and has developed and conducted numerous workshops for classroom teachers in the areas of microcomputer education, software evaluation, time management, assertive discipline and curriculum development.

Helen Livingston - Counselor at Abbeville High School in Abbeville, Alabama. She has been SECME Program Director for four years, working extensively with curricula revisions and changes to improve the science, mathematics and language arts programs.

Ms. Livingston has taught in the state of California and in Teheran, Iran, at the Iranzamin International School. There she taught American Literature, Ancient and Medieval History, and Modern European Studies in the English language tract. She also assisted with seminars in Iranian antiquities. In addition to her duties as a counselor, Mrs. Livingston sponsors the Academic Team and the Career Awareness Club.

Earl H. Marshall - Master Teacher in the area of mathematics. He is a junior and senior high school mathematics teacher and serves as assistant principal at Calhoun High School, Letohatchee, Alabama. He has been the Program Director for SECME in Lowndes County since the beginning of the program in 1978.

Jerry Chesness - Professor of Agricultural Engineering, University of Georgia with fourteen years of faculty service. He will lead engineering laboratory activities which show how the measurement of soil helps with soil irrigation.

Sidney A. Thompson - A member of the University of Georgia engineering faculty for two years. He will lead laboratory activities which show how loads are transferred throughout a structure.

Rex L. Clark - Joined the engineering faculty, University of Georgia fourteen years ago. He will lead activities which show how the design of machinery assist in the separating and sorting of agricultural crops.

Robert W. Schottman - A two year veteran of the University of Georgia engineering faculty. He will lead activities which will show how to calibrate the flow of water into an open channel.

James Eisele - Department of Curriculum Supervision, University of Georgia, will conduct microcomputer sessions on Word Processing on the Vector.

James King - Department of Educational Media and Leadership, University of Georgia, will lead the computer laboratory sessions on Applications on the Apple.

James Okey - Department of Science Education, University of Georgia will present activities in management which apply to the Apple system.

Michael Padilla - Department of Science Education, University of Georgia, will lead activities which show Applications of PLATO.