

Eighty-First

Annual Commencement

North Carolina State University at Raleigh

Additions: p. 16, 19, 23, 24, 33

Corrections: p. 11, 27, 56, 78, 28, 35, 54

Saturday, May 30

Nineteen Hundred and Seventy

Degrees Awarded 1969-70

Musical Program

EXERCISES OF GRADUATION

May 30, 1970

CARILLON CONCERT: 8:30 P.M.
Joel Harrison, Carillonneur

The Memorial Tower

COMMENCEMENT BAND CONCERT: 8:45 A.M.
William Neal Reynolds Coliseum

Overture to "Candide" Bernstein

Hymn of Freedom Brahms

1812 Overture Tchaikovsky

Moorside March Holst

PROCESSIONAL: 9:15 A.M.

March Processional Grundman

RECESSIONAL:

University Grand March Goldman

NORTH CAROLINA STATE UNIVERSITY COMMENCEMENT BAND
Donald B. Adcock, Conductor

Marshals provided by Golden Chain and Alpha Phi Omega

The Alma Mater

Words by:

ALVIN M. FOUNTAIN, '23

Music by:

BONNIE F. NORRIS, JR., '23

Where the winds of Dixie softly blow
o'er the fields of Caroline,

There stands ever cherished N. C. State,
as thy honored shrine.

So lift your voices! Loudly sing
from hill to oceanside!

Our hearts ever hold you, N. C. State,
in the folds of our love and pride.

Exercises of Graduation

William Neal Reynolds Coliseum

May 30, 1970

PROCESSIONAL, 9:15 A.M. Donald B. Adcock
Conductor, North Carolina State University Commencement Band

The audience is requested to remain seated during the Processional.

PRESIDING John Tyler Caldwell
Chancellor, North Carolina State University

INVOCATION Oscar B. Woodridge
*Coordinator of Religious Affairs
North Carolina State University*

ADDRESS Dr. John A. Hannah
*Administrator of the United States Agency
for International Development*

CONFERRING OF DEGREES John Tyler Caldwell
Chancellor
Harry C. Kelly
Provost

Candidates for baccalaureate degrees presented by Deans of Schools. Candidates for advanced degrees presented by Dean of the Graduate School.

ANNOUNCEMENT OF GOODWIFE DIPLOMAS John V. Barger, III
President of Student Government

RECOGNITION OF OUTSTANDING TEACHERS Harry C. Kelly
Provost

ANNOUNCEMENT OF OUTSTANDING TEACHER AWARDS Eric N. Moore
President, Student Senate

REMARKS TO THE GRADUATING CLASS Robert W. Scott
Governor of North Carolina
William C. Friday
President, University of North Carolina

ALMA MATER

BENEDICTION

RECESSIONAL

The audience is requested to remain seated until recessional music is concluded.

Social Hour and Distribution of Diplomas

School and Department Locations

10:45 A.M.

School of Design Erdahl-Cloyd Union Ballroom

11:15 A.M.

School of Agriculture and Life Sciences

Adult Education235 Carmichael Gymnasium
Agronomy, Crop Science, Plant Protection
and Soil Science Williams Hall Auditorium (Room 251)
Animal Science Fitzpatrick Room, 125 Polk Hall
Biological and Agricultural Engineering 158 Weaver Laboratories
Biological Sciences222 Dabney Hall and 3533 Gardner Hall
 Biochemistry
 Biological Sciences Major
 Botany
 Entomology
 Genetics
 Microbiology
 Plant Pathology
 Zoology
Conservation222 Dabney Hall and Williams Hall Auditorium (Room 251)
Economics 256-258 Erdahl-Cloyd Union
Food Science 105 Schaub Food Science Building
Horticultural Science 121 and 125 Kilgore Hall
Poultry Science 224 Scott Hall

School of EducationCarmichael Gymnasium—Student Lounge, Lower Level

School of Engineering

Biological and Agricultural Engineering 158 Weaver Laboratories
Chemical Engineering 113 Riddick Hall
Civil EngineeringLobby of Mann Hall
Electrical EngineeringThompson Theatre
Engineering Mechanics 307 Mann
Furniture Manufacturing and Management 234 Riddick Hall
Industrial Engineering 234 Riddick Hall
Mineral Industries Alumni Building
Nuclear Engineering Burlington Nuclear Laboratories

School of Forest ResourcesCarmichael Gymnasium—West end, Main Floor

School of Liberal Arts Forest Hills Baptist Church

School of Physical Sciences and
Applied Mathematics Lobby, Dabney Hall

School of Textiles Nelson Textile Auditorium

11:30 A.M.

Department of Engineering Operations William Neal Reynolds Coliseum
Department of Mechanical and
Aerospace Engineering Riddick Auditorium (Room 242)

ROTC Commissioning Ceremony

William Neal Reynolds Coliseum

May 30, 1970

PROCESSIONAL MARCH 2:00 P.M. _____ Donald B. Adcock
Conductor, North Carolina State University Commencement Band

The audience is requested to remain seated
until processional music is completed.

NATIONAL ANTHEM

INVOCATION _____ Joseph D. Andrew
Chaplain (Lieutenant Colonel), USAF-Retired

INTRODUCTIONS _____ John Tyler Caldwell
Chancellor, North Carolina State University

ADDRESS _____ Benjamin F. Evans
*Major General, U. S. Army, Deputy Commanding General
Third U. S. Army*

ADMINISTRATION OF OATH OF OFFICE _____ Colonel William L. Boylston
Professor of Military Science
Colonel Owen T. Reeves
Professor of Aerospace Studies
Captain Kenneth L. Harmon
United States Marine Corps
Lt. Commander Russell Wolfe
United States Navy

PRESENTATION OF CERTIFICATES
OF COMMISSION _____ Major General B. F. Evans
U. S. Army
Colonel Owen T. Reeves
U. S. Air Force
Captain Kenneth L. Harmon
U. S. Marine Corps
Lt. Commander Russell Wolfe
U. S. Navy

BENEDICTION

Academic Costume

Academic gowns represent a tradition handed down from the universities of the Middle Ages. These institutions were founded by the Church; the students, being clerics, were obliged to wear the prescribed gowns at all times. Round caps later became square mortarboards; the hoods, originally cowls attached to the gowns, could be slipped over the head for warmth.

Many European universities have distinctive caps and gowns which are different from those commonly used in this country. Some of the gowns are of bright colors and some are embellished with fur. A number of these may be noted in the procession.

The usual color for academic gowns in the United States is black. The bachelor's gown is worn closed, the master's and doctor's may be worn open or closed. The shape of the sleeve is the distinguishing mark of the gown: bachelor—long pointed sleeves; master—oblong, square cut in back with an arc cut away in front; doctor—bell shaped.

Caps are black. The tassels for the Ph.D. degree are gold and those for other graduate and professional degrees may be of the color corresponding to the trimmings on the hoods. The color of the tassels for bachelor's degrees indicates the curriculum of the graduate.

The hoods are lined with the color of the institution from which the wearer received his degree. The trimming or collar of the hood is the color which designates the degree: Liberal Arts, white; Fine Arts and Architecture, brown; Science, golden yellow; Music, pink; Divinity, scarlet; Law, purple; Engineering, orange; Philosophy, blue; Medicine, green; Forestry, russet; Textiles, wine red.

Honorary degree hoods are distinguished as follows: Master of Arts (M.A.), white; Doctor of Humane Letters (L.H.D.), white; Doctor of Science (Sc.D.), golden yellow; Doctor of Divinity (D.D.), scarlet; Doctor of Laws (L.L.D.), purple.

DEGREES CONFERRED

May 30, 1970

School of Agriculture and Life Sciences



BACHELOR OF SCIENCE IN BIOLOGICAL AND AGRICULTURAL ENGINEERING

Jointly Administered by the School of Agriculture and Life Sciences and the
School of Engineering

Thomas Myers BrandonYadkinville
James William RodgersReidsville
James David SturgillPiney Creek

BACHELOR OF SCIENCE IN CONSERVATION

Jointly Administered by the School of Agriculture and Life Sciences and the
School of Forest Resources

David Franklin BrittHerrin, Ill.
Jeffrey James DeWolfePlainfield, N. J.
Nancy Shelbourne HallClayton
Larry Wayne MinorGraham
Ann Davis StuckeyKingsport, Tenn.

BACHELOR OF SCIENCE

Agricultural Economics

Jesse Burdell Alford, Jr.Rolesville
Herbert Gray Ashburn, Jr.Belew Creek
** Timothy Flake BowlesHiddenite
Ernest Warren Cordon, Jr.Bath
Archie Devonne CumbeeRaleigh
Elijah Shelton GriffinLouisburg
Marvin Hight HarrisonSnow Hill
Robert Louis Hollowell, Jr.Hertford
Donnie Ray HolyfieldDobson

* Honors ** High Honors

Bonnie Glenn King	Clinton
Tallie Wilbur Lamm, Jr.	Bailey
† Joseph Churchill Leggett	Washington
Robert Malcolm McLean	Horse Shoe
Ralph Edward Miller	Hertford
James Edward Taylor	Hookerton
Kenneth Earl Tingen	La Grange
Dwight Jerome Tinkham	Murfreesboro
Frank Wayne Waters	Pinetown

Agronomy

Charles Hobert Beam, Jr.	Casar
* Carl Wells Hall, III	Mt. Ulla
Lawrence Clifton Hardison	Williamston
* Jesse Elmo Lilley, Jr.	Williamston
Edward Earl Merritt	Kinston
Gary Alfred Payne	Thomasville
William Calvin Ragan	New Hill
Ronald Michael White	Williamston
Berch Eugene Wyre, Jr.	Winston-Salem

Animal Science

David Clyde Bodenheimer, Jr.	High Point
Joseph Samuel Brake, Jr.	Rocky Mount
Richard Gordon Bunn	Rocky Mount
Ronald Lee Carter	New London
Paul Lee Craven, Jr.	Thomasville
* Albert Lee Glenn, Jr.	Boiling Springs
Arlie Smokie Greene	Deep Gap
Christa Petticord Hamilton	Advance
Joel Steven Harrison	Snow Hill
Thomas Eli Harvey	Glen Mills, Penna.
Wilson Chester Lowder	Norwood
Judy Batchelor McCormick	Raleigh
* John Michael Martin	Wadesboro
Danny Clark Milholland	Conover
Robert Dwayne Myers	Jonesville
Glenn Thomas Petty	Shelby
James Michael Pitman	Spruce Pine
Carlton Gene Purvis	Hobgood
Thomas Richard Remmey	Greensboro
* Thomas Judson Revelle ..	Cary
William Thomas Ruark	Richmond, Va.
Larry Buford Seal	Mount Airy
Donald Charlie Vestal	Boonville
James Richard Walton	Castle Hayne

Biological and Agricultural Engineering

† Hiram Creagh Bell, Jr.	Pollocksville
Arthur Lee Blackwelder, Jr.	Harrisburg
Alton Ray Harris	Williamston

* Honors † In Absentia

Jerry Hiatt Hilton	Thomasville
Kenneth Lester Huggins	Fayetteville
George Thomas Jenkins	Rocky Mount
Tallie Wilbur Lamm, Jr.	Bailey
*Benjamin Larry Lane	Stantonsburg
Peter Thomas Monte	New Bern
John McNeill Ray, Jr.	Hope Mills
James Carl Tutor	Fuquay-Varina
†Edward Franklin Vernon	Blanche
*Ricky Lynn Young	Angier

Biological Sciences

<i>off H</i> *Herbert Bennett Edgerton, Jr.	Goldsboro
**William Byron Gurley	Roanoke Rapids
†Barbara Jean Walters	Raleigh

Botany

James Ronald Harper	Highlands
Tomas Archibaldo Salgado Obando	Tequigalpa, Honduras

Entomology

Claude Swanson Key, III	Greensboro
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Food Science

Robert Albert Cooper	Winston-Salem
Stanley Guy Herndon	Apex
Timothy Alan Peppe	Clarksville, Tenn.

Horticultural Science

Stephen Edward Dixon	Benson
*Cristy Ford Elkins	Greensboro
*Derold Garry Ledford	Franklin
Harold Larry Ledford	Franklin
Michael Dan McGough	Asheville
James Haywood Peele	Goldsboro
†Whitten Walter Scholtz, III	Charlotte
*Edward Lanny Thomas	Peachland
John Sidney Tomlinson, III	Wilson
Barclay Childers Winn	Norfolk, Va.

Plant Protection

Willard Oscar Jackson	Henderson
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Poultry Science

Donnie Ray Holyfield	Dobson
Glenn Thomas Petty	Shelby
Harold Boyd Price, Jr.	Raleigh
*Larry Dean Simmons	Mount Airy
Rex Gordon Thompson, Jr.	Apex
Roger Dale Wyatt	Albemarle
Myron Dale York	White Plains

Soil Science

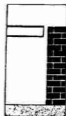
**George Thomas Biersdorf	Silver Spring, Md.
Walter Edward Casavant	Chattanooga, Tenn.

* Honors ** High Honors † In Absentia

Zoology

John Ward Andrews	Independence, Va.
*Patricia Cates Arrowood	Hillsborough
Johnny Wayne Bagwell	Raleigh
David Michael Beaver	Greensboro
Harrol David Blevins	Sparta
†**John McBrayer Bradsher	Roxboro
Mark Canavan	New City, N. Y.
**Kerry Patrick Cogburn	Canton
*Alston Elmo Dunbar, Jr.	Pantego
Donald Wilson Fink	Albemarle
Rodney Daryl Flynt	Rockingham
*Gilbert Spencer Grant	Sneads Ferry
Lee Allyn Heckman	Denver, Colo.
Albert Ronnie Hight	Warrenton
Patricia Elaine Wilson Hill	Spruce Pine
George Nellson Kahdy	Raleigh
Lewis Keathley, Jr.	Albertson
Ivy So Lee	Hong Kong
Kenton Richard Lilyquist	Raleigh
†George Cary Martin	Statesville
*Carroll John Painter	Lincolnton
*Thomas Dwight Rains	Pine Level
Martha Walker Saffores	Canton
**John Douglas Schroer	Fayetteville
*Sarah Louise Sheffield	Wallace
Nita Elizabeth Spencer	Shelby
Donald Earl Temple	Erwin
†Donald Thomas	Burlington
†Richard Travis Thomas	High Point
*Walter Robert Tucker	Charlotte

School of Design



BACHELOR OF ARCHITECTURE

Lyn Early Adams	Greensboro
Julian Vann Alexander	Charlotte
David John Alpaugh	Westfield, N. J.
George Crawford Amick, Jr.	Mebane

* Honors ** High Honors † In Absentia

Junius Mebane Andrews, Jr.	White Lake
Richard Elbert Atkinson	Hamlet
*Douglas Marshall Bennett	Roanoke, Va.
Alan Charles Billingsley	Rockville, Md.
Thomas Archibald Blount	Montgomery, Ala.
William Parks Brady	Ramseur
Thomas Davis Calloway, Jr.	Winston-Salem
Mark Joseph Caraccia	Fayetteville
Donald Howard Cohen	Greensboro
James Lee Cox	Wilmington
Lewis James DeTurk	Union, N. J.
Paul Hambleton Duckwall, Jr.	Statesville
Michael Lewis Dyer	Charlotte
George Holloman Ellinwood	Raleigh
Elmer Burton Elliott	Old Hickory, Tenn.
Robert Wayne Ham	Mooreville
*Dixon Boyce Hanna	Gastonia
*Scott James Heacock	Toledo, Ohio
Kyle Leon Highsmith	Greenville
**John Llewellyn Hitch	Raleigh
William Reed Hopkins	Salisbury, Md.
*Linda Lee Jewell	Sanford
Ralph Stephen Johnson	Winston-Salem
James Marshall Kunkle	Statesville
Donald Edwin Kunze, Jr.	Asheville
Robert Michael Lauricella	Wyckoff, N. J.
John Russell McCollum, Jr.	Monroe
Dwight Max McLeod	Matthews
George Keith Morris	Matthews
Gary Williams Partin	Goldsboro
†Paul Bertram Poetzsch	Charlotte
*Theresa Joan Rosenberg Raper	Gastonia
Anthony Simms Riddle	Greensboro
Richard Wayne Roberts	Roanoke Rapids
Leonard Allen Roberston	Louisville, Ky.
Michael Steven Robinson	Bakersville
Jerry Robert Simmons	Reisterstown, Md.
John Franklin Sinnett, Jr.	Newton
Carl William Smith	Camden, N. J.
John Frank Thompson	Durham
*Walter Thomas Vick, III	Fayetteville
Warren Riley Wilson, Jr.	Charlotte
Barney Paul Woodard, Jr.	Princeton

BACHELOR OF ENVIRONMENTAL DESIGN

Joseph Paul Arnold	Colonial Heights, Va.
Carl Peter Danese	Teaneck, N. J.
Richard Eugene McCommons	Raleigh
Graham Manly Rouse, Jr.	Havelock
†Donald Booth Trivette, III	Winston-Salem

BACHELOR OF LANDSCAPE ARCHITECTURE

Joseph Fletcher Allen	New Bern
*Curtis Franklin Baggett	Knoxville, Tenn.

* Honors ** High Honors † In Absentia

Larry Dean Cockerham	West Jefferson
Alfred Settle Dockery, Jr.	Rockingham
David Wayne Gibson	Colorado Springs, Colo.
*James Brian LeVine	Honolulu, Hawaii
*Robert William Mello	Crofton, Md.
Luther Elly Smith	Bel Air, Md.
*Nicholas Paul Young	Dania, Fla.

BACHELOR OF PRODUCT DESIGN

*Lynn Wilson Abernethy	Statesville
David Bradley Cameron	Raleigh
Ronald Dean Cauble	Kannapolis
Michael David Doty	Shelby
James Ellis Faydock	Palo Alto, Calif.
Edwin Clark Ford, Jr.	Shelby
Jerry Edward Keith	Tucson, Ariz.
Richard David Meisky, Jr.	High Point
James Hughel Moon, Jr.	Kannapolis
Dallas Grady Riley, Jr.	Hamptonville
Douglas Leroy Stott	Wilson
Danny Michael Truette	Charlotte
Louis John Venturello	Hollywood, Fla.
Hal Harley Willett, II	Hickory

School of Education



BACHELOR OF SCIENCE IN EDUCATION

Agricultural Education

Walter Jerry Batten	Hallsboro
†Johnny Kenneth Bradley	Rutherfordton
Rudy Dale Britt	Biscoe
George Thomas Brooks	Oxford
Clyde Wesley Copeland, Jr.	Palmyra
Melvin Odell Crisp	Oak City
*Roger Brenton Davis	Mount Olive
David Allen Denning	Benson
Steven Hoyle Ervin	Cleveland
†Sidney Ray Fields	Albemarle
Timothy Gene Forrest	Morehead City
James Cooke Guard	Poplar Branch
George Richter Hahn, Jr.	Mt. Pleasant
Jimmie Burch Holland	Holly Springs
William Melvin Johnson	Statesville

** High Honors * Honors † In Absentia

William Harold Keith, Jr.	Creedmoor
Danny Lee Kinlaw	Lumberton
Roger Wayne Lee	Pikeville
†Talmadge Little	Raleigh
James Ray Mabe, Jr.	Madison
Bruce Lee Miller	China Grove
*Jerry Bryant Washington	Fuquay-Varina
*Ricky Lynn Young	Angier

Industrial Arts Education

Randy Gale Britt	Biscoe
Robert Richard Gilbert	Moyock
Harold Walter Haun	Kittrell
John Charles Herrmann	Raleigh
*George Curtis Martin	Biscoe
William Henry Watson, Jr.	Fayetteville
James Evans Yeager	Spring City, Penna.

Mathematics Education

Kendall Nelson Caison	Mebane
William Norman Eccles	Gastonia
Charles Wayne Gardner	Raleigh
Teddy Neil Graham	Salisbury
*Kay Allmon Hinson	Mt. Pleasant
*James Harvey Hoffman	Jumping Branch, W. Va.
Joseph Lafayette Inman, Jr.	Shalotte
*Diane Weathers Johnson	Cary
Ollie Harrison Lambert, III	Biscoe
Carl Richard Ratliffe	Wadesboro
Ralph Clark Reynolds	Troy
Marilyn Rose Thompson	Pine Level
James Connie Weaver	Fayetteville
†Virginia Curtis Wilkinson	Apex

Science Education

*Carolyn Waller Anderson	Richmond, Va.
William Ira Kincaid, Jr.	Bessemer City
Dennis Lester Stewart	Four Oaks

Vocational Industrial Education

John Douglas Brattain	Stanfield
Linwood Leon Hawkins	Hertford
*Rebecca Jessup Swanger	Durham
Frederick Lee Webster, Jr.	Burlington

BACHELOR OF SCIENCE IN INDUSTRIAL ARTS

Harvie Joe Baxter	Raleigh
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* Honors ** High Honors

School of Engineering



BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

Sherman Dorn Basinger	Spencer
Neal Martin Bengtson	Boston, Mass.
Robert Lee Bowling, Jr.	Williamston
David Henry Corbin	Franklin
Edwin Arthur Creasman	Swannanoa
John Harwood Davis	Durham
Gerald Franklin England	Marion
John Russell German	Spring Lake
Ronald Houston Gordon	Winston-Salem
Alton Kellum Halso, Jr.	Atlanta, Ga.
Ronald Lester Hawks	Mt. Airy
* Vernon Talmadge Helms, III	Monroe
Alan Leon Hix	Harmony
Jacob Albert Houck	Jacksonville
Kenneth Morris Jones	Washington
* Robert Wilson King, Jr.	Fayetteville
Michael David Lockhart	North Wilkesboro
Bobby Larry Mangum	Marshville
Garry Wayne Matheson	Havelock
Terry Henson Messer	Waynesville
Robert Randall Moore	Hudson
Joseph Milton O'Brien, Jr.	Leonardtown, Md.
Donald Wayne Payne	Elizabeth City
Kirby Lane Pearce, Jr.	Raleigh
Bobby Dean Ray	Cliffside
Michael George Redding	Spencer
David Lee Russell	Gastonia
David Wilson Shuford	Hickory
Dallas Reece Shugart, Jr.	Jonesville
Thomas Hendrix Skeen	Winston Salem
* Gary Gilbert Spangler	St. Petersburg, Fla.
George Hugh Stilwell	Concord
Jerry Martin Stubberfield	Hamlet
Robert Leo Svoboda, Jr.	Farmington, Mich.
* Robert Matthews Tayloe	Ahoskie
Stephen William Tesh	Lexington
Nolan Kermit Voncannon, Jr.	Asheboro

* Honors

** High Honors

Gregory Allen Watts	Morganton
*William Henry Worsley	Greenville
Richard Kearney Wright, Jr.	Greensboro

BACHELOR OF SCIENCE IN CERAMIC ENGINEERING

*William Elbert Cook	New Bern
Van Arden Dixon	Roxboro

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Crowley Clark Allen, Jr.	Elizabethtown
Anthony Frank Ambrosio, Jr.	Chapel Hill
John Wheeler Anderson	Greensboro
Charles Lee Corpening, Jr.	Canton
David Clarence Fesperman	Albemarle
Parker Lee Hatcher, Jr.	Cary
Edward Hardin Hawfield	Londonderry, N. Ireland
William Edward Hutchinson	Candler
†Bruce David Johnson	Wilmington
*Joseph Terrell Lewis	Hemingway, S. C.
John Michael McDowell	Otto
†*Archie Elmer Murray, Jr.	Wilson
Peter Ross Powell, Jr.	Carney's Point, N. J.
Michael Andre Ritz	Waynesboro, Va.
*Roger Dale Towe	Candler
John Curtis Underwood	Durham
Hubert Melvin Winston	Washington, D. C.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Thomas Jackson Bagby, III	Raleigh
Donald Wayne Bailey	Winston-Salem
*Bobby David Barnes	Elm City
**Merritt Edney Blalock, III	Charlotte
Terry Lane Bradley	Otto
Donald Carroll Bunch	Tyner
Gilbert Neff Burnet	Charlottesville, Va.
James Roderick Butler	Cary
James Ronald Clark	Hickory
James Edgar Davis	Raleigh
Sydney Stanton Dibrell, IV	Salisbury
Charles Leigh Dickson	Salisbury
Daniel Walter Donathan	Winston-Salem
Robert Bunker Dulaney, Jr.	Jacksonville, Fla.
William Daniel Gilmore	Raeford
Arnold Bennie Goetze, Jr.	Raleigh
Raymond Keith Green	Trenton
Marwan Mousa Hammoudi	Beirut, Lebanon
William George Hansen	Brainerd, Minn.
*Carlton Sumner Harrell, Jr.	Burgaw
*Terry Hatcher	Chinquapin

* Honors ** High Honors † In Absentia

* Allen Lee Hurlocker	Raleigh
Sanford Raymond Jordan, Jr.	Charlotte
James Clyde Kiser, Jr.	Concord
Glenwood Marshall Kornegay	Mt. Olive
Linwood Cecil Kornegay	Mt. Olive
Joseph Cheatham Lamb, Jr.	Blacksburg, Va.
Harry Raymond Lewis, Jr.	McLean, Va.
* John Ronda Lewis, Jr.	Old Fort
Claude Alexander Morrison, Jr.	Monroe
Clarence William Oakley, Jr.	Roxboro
Michael Thomas Patton	Hickory
William Thomas Pruden	Plymouth
* Ronald Ernest Punch	Conover
† Khosrow Rahmanan	Mashed, Iran
Thomas Edwin Ramsey	Greensboro
Richard Joseph Reynolds	Kernersville
Charles Rea Rivenbark	Wilmington
Leonard Allen Sanderson	Fairmont
Warren William Smith	Raleigh
* Roger Glenn Stroud	Kinston
John Richard Tashjian	Richmond, Va.
** Thomas Edward Underwood	Charlotte
Henry Morgan Webster	Raleigh
Robert Davidson Whitley, Jr.	Charlotte
Stephen Kenyon Worrell	Roanoke, Va.
Philip Lee Wylie	Marion
Massoud Yamin	Tehran, Iran

BACHELOR OF SCIENCE IN CIVIL ENGINEERING, CONSTRUCTION OPTION

Brian Thomas Armstrong	New Bern
John Vastine Barger, III	Mooresville
Robert Allan Clare	Pelham
James Claud Fulbright	Hickory
Gerald Vincent Grant	Statesville
Ronnie Dean Hackett	Asheboro
Charles Eugene Havens	Asheboro
Perry Wayne Jenkins	Statesville
Robert Lee Jenkins	Taylorsville
* Robert Craig Pantel	South Fallsburg, N. Y.
William Darrell Robertson	Stony Point
Atef Shaaban	Beirut, Lebanon
Ralph Farrell Sikes, Jr.	Wadesboro
William Joseph St. Peter	Chicago, Ill.
Michael Wayne Turner	Tarboro
* Henry Wayne Ussery	Rockingham
Charles Manly Walters, III	Burlington
David Michael Ward	Weaverville
Dean Edwin Wilkie	Lenoir

** High Honors * Honors

Carlisle J. ...

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

*Walter Lee Adams, Jr.	Trenton
Ramon Elwood Atkins	Fayetteville
Phillip Rex Ayers	High Point
John Arthur Baker	Durham
Richard Wayne Bothwell	Hummelstown, Penna.
Vallee Leevallette Bruce, Jr.	Fayetteville
Howard Allen Chamberlin, Jr.	Raleigh
*Alice Anne Cline	Raleigh
William John Rayburn Collins	Raleigh
Isaac Tunis Corbell, III	Concord, Mass.
**Randall Lee Corn	Durham
David Barnette Cox	Raleigh
†Gustavo Darquea	Quito, Ecuador
Bryan Glenn Davis, Jr.	Raleigh
Charles Alan Dice	Rocky Mount
Jerry Ray Dumbauld	Hershey, Penna.
Frank Morris Feibelman	Danville, Va.
*Alan Kenneth Garrenton	Wilmington
Stephen Manley George, Jr.	New Bern
*Norman Hamilton Gholson	Fort Mill, S. C.
*Stephen Robert Goza	Albemarle
James Franklin Green	High Point
†Julius Hugh Green, Jr.	Durham
James Wesley Gwyn, Jr.	Winston-Salem
*Charles Wendell Hamlett	Winston-Salem
Robert Godfrey Hand, III	Succasunna, N. J.
Benjamin Brooks Harry	Charlotte
†David Lynn Helms	Hamlet
†John Daniel Helms, Jr.	Asheville
Nathan Martin Hess	Mount Joy, Penna.
Russell Dewey Horsley	Arcy, Ala.
†Cyrus John Hoxit	Rosman
Thomas Eugene Hudgins	Ethridge, Tenn.
David Newton Hunt	Jamestown
*William Prentiss Ingram, III	Raleigh
William Smith Johnson, Jr.	Wilmington
David Holland Jones	Winston-Salem
Robert Junior Kale	Clover, S. C.
*Gary Anderson Killen	Florence, S. C.
Roger Harold Lamar	Asheboro
Julian Stephen Lanning	Asheville
Samuel Payne Lewis, Jr.	Burgaw
Harry Gene Lockaby	Hendersonville
Clyde Eugene Long	Raleigh
Theodore Melvin McClelland, III	Winston-Salem
*Barry Stephen Marx	Houston, Texas
Wen Tze Mih	Beacon, N. Y.
Carl Wesley Moore	Caroleen

** High Honors * Honors † In Absentia

John Allen Moore, Jr.	Rose Hill
*Alan Lloyd Morrison	Raleigh
William Benjamin Murray, III	Mount Olive
†*Larry Bruce Nunnery	Fayetteville
**Edward Michael Oakley	Roxboro
*Frank William Ometz	Darragh, Penna.
*Gerald Bruce Parker	Fuquay-Varina
Chatry Dixon Perry	Durham
Robert Eugene Porterfield	Durham
William Thomas Purvis	Rocky Mount
†David Henry Reitfort	Raleigh
**George Ray Ritchie	Raleigh
Edward Bruce Roberts	Durham
John Randolph Searle	Aiken, S. C.
John Askew Shaw	Wilmington
*Allen Ray Shuff	Huntington, W. Va.
John Kenneth Simmerman	Rockingham
Walter Dupree Simmons	Pollocksville
Gerald Moore Smith, Jr.	Winston-Salem
John Stephen Smith	Marshville
*Gary Gilbert Spangler	St. Petersburg, Fla.
Ronald Earl Stevens	Durham
John Merlin Stewart	Raleigh
*Robert Merle Suter	Arlington, Va.
Patrick Bernard Truesdale	Raleigh
*Elizabeth Jane Weant	Raleigh
*William Lloyd Weber, III	Preston, Idaho
Dwight Chester Whitaker	Deerfield, Ill.
Johnny Mack Wicker	Sanford
*Philip Ernest Williams	Charlotte

BACHELOR OF SCIENCE IN ENGINEERING MECHANICS

James Allen Hunt	Raleigh
Marvin Carl Lunsford, Jr.	Winston-Salem
Lloyd Thomas Mitchell, Jr.	High Point
*Everette Brent Sigmon	Conover
Richard Carroll Stevenson	Palmyra
*John Thomas Walsh	Gastonia

BACHELOR OF SCIENCE IN ENGINEERING OPERATIONS

Peter Vaden Abene	Ayden
Roland Daniel Allen	Shelby
David Lee Anderson	Asheville
Robert Ellis Andrews	Sparta
Mitchell Terrance Arnold	Raleigh
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*Ronald Osborne Skidds	Hendersonville
Wesley Lawrence Smith	Durham
*Philip Alan Thompson	Greensboro
Ray Eugene Wilson	Winston-Salem
Danny Ray Yost	Rockwell

BACHELOR OF SCIENCE IN TEXTILE TECHNOLOGY

†Charles Judson Allen, IV	Charlotte
William Clyde Asbill, Jr.	Biscoe
John Gibbes Barnwell	Charlotte
John Pinkney Beam, Jr.	Cherryville
Linwood Eldridge Beasley	Dunn
*Randy Steve Bedington	Hickory
Charles Collins Benton, III	Greensboro

* Honors ** High Honors † In Absentia

Michael Joseph Black	Burlington
Frank McRae Blue, Jr.	Raeford
†Abdolhossein Bonakdarpour	Lafayette Hill, Penna.
**Benny Don Bowers	Albemarle
†Charles Van Bowers	Thomasville
*Robert Bruce Bristow, Jr.	Newton
*Lonnie Lee Bryant	Rocky Mount
**James Edward Carrington	Durham
†Roddy Coleman Chaney	Cherryville
†Frank Lewis Clapp, Jr.	Newton
David Elgin Cline	Kannapolis
Johnny Lester Clontz	Julian
Robert Luther Cook	Hickory
William Creecy Copeland, III	Huntersville
Robert Hugh Corzine	Raleigh
Albert Murray Council, Jr.	Apex
*Raymond Louis Crawford	Snow Hill
James Francis Curran, Jr.	Roanoke Rapids
Andrew Malcolm Curtis	Chattanooga, Tenn.
James Martin Daniels	Winston-Salem
David Henry Darden	Conover
†Joseph Buckner Denmark, III	Charlotte
Willis Albert Drew	Hope, R. I.
Harold Brooks Edwards	Oakboro
†Jeffrey Ettin	Edison, N. J.
Charles Raymond Farabee, II	China Grove
Wayne Daniel Funderburke	Charlotte
*James Whitmel Goldsmith	Marion
†Jacques Gravel	Louiseville, Quebec, Canada
John Robert Gray	Dunn
**Phillip Dwight Griswold	Rutherfordton
James Floyd Harriett	New Bern
Linwood Jones Harris	Raleigh
*Darrell Gene Hawkins	Madison
*Michel Hebert	Drummondville, Quebec, Canada
Ronald Earl Hill	Kinston
Stephen Michael Holder	Gastonia
Henry Lewis Hunter	Clarksville, Va.
Jackie Wilton Jernigan	Kinston
Myrlon Thomas Johnson, Jr.	Henderson
Harold Thomas Jones	Rhodhiss
*James Watson Kelly	Apex
Kenneth Ray Lambert	Kannapolis
*Stephen Wise Lathan	Greensboro
*Stephen James Laton	Norwood
Ricky Wayne Lawing	Maiden
**David Everette Lee	Princeton
Archibald Caleb Lineberger, III	Belmont
Odis Edwin Little, Jr.	Greensboro
†Andre Denis Loiselle	Valleyfield, Quebec, Canada
Walter Esley Long	Mt. Holly
Everette Hampton Love, Jr.	Stanfield
†John Lawrence McCotter, III	Oriental

* Honors ** High Honors † In Absentia

Robert Cecil McDonald, Jr.	Rockingham
Dan Ross McLelland	Troutman
Andrew Fenton Maner	Wadesboro
*Norman William Henry Joseph Meloun	Ontario, Canada
Jerry Lee Melton	Spindale
Franklin Ellis Merrell	Salisbury
William Ronald Miller	Waynesville
Ralph Bruce Monk	Roxboro
**Massimo Moretta	Varese, Italy
John Sarkis Muktarian	Fuquay-Varina
*Ross William Nash	Charlotte
†*Harold Hastings Newman, III	Salisbury
†**Lloyd Douglas Nichols	Bowmanville, Ontario, Canada
†Kenneth Gerald Norman	Reidsville
John William Parrish, Jr.	Charlotte
Lloyd Kenneth Parson, Jr.	Greensboro
Marshall Brandon Payne, Jr.	Kannapolis
William Logan Peek	Canton
Richard Conway Pitt, III	Red Oak
†**Jacques Andre Poulin	Magog, Quebec, Canada
Clay Vance Richardson, Jr.	Star
Thomas Bradham Rivers, Jr.	Kinston
Richard Grey Roberson	Asheville
Isaac Rhodes Robinson, Jr.	Asheboro
Jack Earle Rosentein	Philadelphia, Penna.
John Daniel Ross	Seaford, Del.
*Stephen Clyde Rothrock	Thomasville
Jimmy Allen Russell	Albemarle
John Sherrill Sloop	Mt. Ulla
Roderick Eugene Sloop	West Jefferson
Willie Tate Smith, II	Cary
*Charles Wade Snodgrass	Elizabethton, Tenn.
†**William Maurice Spencer	Trenton, Ontario, Canada
Charles Michael Stanley	Marion
†Robert Calvin Swing	Asheboro
Fred Canady Taylor	Grifton
Rav Edward Taylor	Marion
†*Clifford James Thibeau	Yarmouth, Nova Scotia, Canada
†Robert Montgomery Townsend	Albemarle
David Frank Vanpelt	Kannapolis
Robert Durand Wagoner	Misenheimer
Ronald Wayne Wells	Warrenton
Richard West	Warrenton
Bobby Loyd Willis	Vale
George Richard Wilson	Robersonville
Howard Cecil Wilson, Jr.	Spring Hope
Allen West Wood, Jr.	Salisbury
Charles Dewitt Worley	Princeton

* Honors ** High Honors † In Absentia

Professional Degrees



Civil Engineer, Soil Mechanics and Foundation Option

†James Turman Carper Raleigh
†Robert Elbert Perkinson, Jr. Bluefield, W. Va.

Civil Engineer, Transportation Option

†James Alexander McColman Wilson

Industrial Engineer

James Charles Marshall Stokesdale

Mechanical Engineer

Dilip Narharilal Parikh Baroda, Gujarat, India



Masters Degrees

MASTER OF AGRICULTURE

Charles Halford Womble Raleigh

MASTER OF APPLIED MATHEMATICS

Fred Mark Allred, Jr. Burlington
Robert August Becker Lebo, Kansas
Phillip Stephen Boggs Smyrna, Ga.
Richard Dean Clark Fillmore, Ind.
Gary Yates Fletcher Elizabeth City
Sherman Douglas Harris Raleigh
Vaughn Anthony Johnson Sacramento, Calif.
†Marvin Ray Oliver Kinston

MASTER OF BIOCHEMISTRY

†Jay Stephen Gerstein Fort Lee, N. J.

† In Absentia

MASTER OF CIVIL ENGINEERING

Syed Kalbi Abbas	Kohat, West Pakistan
Phiphat Charoensawadsiri	Bangkok, Thailand
Daniel Jay DeRoock	Seaford, N. Y.
Snehamay Khasnabis	Calcutta, India
Baldomero Rupay	Lima, Peru
Marvin Patrick Strong	Hamlet
†Shie-Shin Wu	Taisun, China
Ming Gwo Yu	Taiwan, China

MASTER OF ECONOMICS

†Michael Warren Clary	Petersburg, Va.
Somporn Hanpongpanth	Thornburi, Thailand
†Carl Thomas Sawyer	New Bern

MASTER OF EDUCATION

Adult Education

Amnat Anantachai	Chacherngsao, Thailand
Constantinos Spyridon Boukouvalas	Kryfovo, Greece
Robert Marshall Bowden	Henderson
William Earl Ferrell	Wilson
James Richard Franck	Trenton
Franklin Monroe Green	Reidsville
Worth Wicker Gurkin	Clinton
Jerry Warren Hardesty	Currituck
Donald Avery Hart	Raleigh
†Walden McMillan Hearn, Sr.	Elizabeth City
Connie Hughes Jernigan	Fayetteville
Don Carson Pardue	Cary
†Janice Schell Pyle	Denver, Col.
Era Kemp Robinson	Fayetteville
Carolyn Crouse Russell	Raleigh
William Everett Thomas	Richmond, Va.

Agricultural Education

†Larry Eugene Byrd	Mebane
Herman Green Croom, Jr.	Goldsboro
Albert Floyd Hicks, Jr.	Timberlake
Kenneth Rudolph Langley	Princeton
Norman McArthur	Wendell
Larry Waddell Mabry	Albemarle
Charles David Strickland	Tabor City
John Devereaux Sugg	Albemarle
Noah Linwood Ward	Whiteville

Guidance and Personnel Services

†Helga Blum Baer	Fayetteville
Robert Charlton Baird	Raleigh
†Barbara J. Bjelde Barnes	Raleigh
Mary Lee Herring	Raleigh

† In Absentia

Odessa Wallace Hicks	.....	Raleigh
†Ann Grimsley Jamieson	.....	Greensboro
John Michael Kimble	.....	Dayton, Ohio
Carl Edwin Malpass	.....	Wilmington
†Joan Hood Peck	.....	Durham
†Doris Jordan Saunders	.....	Philippi, W. Va.
†Patricia Ann Brinkley Sellers	.....	Clemson, S. C.
Rosalind Wexler Waitman	.....	Fayetteville
†Nancy Hanel Webb	.....	Raleigh
†Bertha Bell Weston	.....	Garner

Vocational Industrial Education

Carlton Stephen Ashby, Jr.	.....	Garner
James Hargett Ellerbe	.....	Clayton
†John L. Huffman, Jr.	.....	Raleigh
Henry Thomas Tucker	.....	Durham

MASTER OF ELECTRICAL ENGINEERING

Anthony Joseph Anello	.....	North Bergen, N. J.
†Rion Glen Day, Jr.	.....	Raleigh
Joseph Harold White	.....	Raleigh

MASTER OF ENGINEERING MECHANICS

Marcus Dale Jordan	.....	Roxboro
Bradley Wayne Smith	.....	Chapel Hill
James Howard Stanley	.....	Hampton, Va.

MASTER OF EXPERIMENTAL STATISTICS

†Robert Simpson Mayne	.....	Ottawa, Canada
†Jean-Guy Routhier	.....	Quebec, Canada
John Warren	London, England

MASTER OF GENETICS

Georgeanne Stengele Hoegerman	Brooklyn, N. Y.
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MASTER OF INDUSTRIAL ENGINEERING

Laxminarayana Duvvuri	Calcutta, India
†John Marion Taylor, Jr.	Ellerbe

MASTER OF LANDSCAPE ARCHITECTURE

Michael John Norton	London, England
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MASTER OF MECHANICAL ENGINEERING

†Harry Kent Allison	Lakeworth, Fla.
Stephen Ray Cordle	Greensboro
Richard Hunter Harris	.....	Raleigh
†Paul Gi-Hang Ho	.....	Charlotte
Chi-lin Hwang	.....	Taiwan, China

† In Absentia

Narendra T. Mankad	Gujarat, India
Ashwin Bhailalbai Patel	Baroda, India
†Ravinchandra Jivabhai Patel	Gujarat, India
James Randolph Rooker	Wilmington
†Virendra Ramaniklal Sitwala	Ahmedabad, India

MASTER OF PRODUCT DESIGN

Russell Rolland Drake	Raleigh
†Peter Evan Johns	Toronto, Canada

MASTER OF TEACHING IN MATHEMATICS

Robert Coward Boardman	Raleigh
Frederick John Cole	Springfield, Mass.
Douglas Forrest DeGroote	Humboldt, Iowa
Hamilton William Fish	Raleigh
Acheson Adair Harden, Jr.	Peru, Ill.
†William Jay Henry	Callao, Va.
Raymond Frank Ruddell	Hendersonville
Melvin Wendall Snow	Fairfield, Me.

MASTER OF TEXTILE TECHNOLOGY

Tzu-Huey Chiu	Taiwan, China
Robert James Grubbs	Raleigh

MASTER OF ZOOLOGY

†Mary Jo Whitley	Albemarle
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MASTER OF ARTS

English

†Rebecca Roberts Bullock	Raleigh
†Helen L. Glasgow Grippio	Granite City, Ill.
†Janet Leonard Wester	Louisburg

Politics

Timothy Moore Garner	Charlottesville, Va.
†Arthur Reginald Tarleton	Monroe

MASTER OF SCIENCE

Agricultural Economics

†Donald Vetsel DeBoard	West Chester, Ohio
†Abraham Emigdio Febres	Lima, Peru
Fred Vincent Harrell, Jr.	Madison, Ind.

Biochemistry

†Stanley George Middleton	Baltimore, Md.
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Botany

Nirupama Mohapatra	Orissa, India
†Molly Tutterow Mooring	Cary

† In Absentia

Chemical Engineering

†John Thomas Ferguson, Jr. _____ Houston, Texas
 Andre Goineau _____ Lyon, France
 †Hasmukh Panachand Shah _____ Ahmedabad, India
 Jiann Tarnq Tsai _____ Taiwan, China

Civil Engineering

Jagannath Ramachandra Bhargava _____ Bangalore, India

Crop Science

Charles Howard Isley _____ Liberty

Electrical Engineering

Huseyin Abut _____ Istanbul, Turkey
 Robert Sullins Drew _____ Greensboro

Engineering Mechanics

William Quinten Gurley _____ Asheville
 †Robert Stuart Steele _____ Hickory
 James Hunter Ware, Jr. _____ Mount Holly

Entomology

†Thomas Norton Hunt _____ Hendersonville
 †Beling Pao _____ Taiwan, China

Food Science

Eric Charles Johnson _____ Rochester, N. Y.

Industrial Engineering

Sanji Arisawa _____ Tokyo, Japan

Materials Engineering

Thomas Burl Gurganus _____ Plymouth
 Marvin Levern Huckabee _____ Raleigh
 Curtis Edward Zimmer _____ Rush, N. Y.

Mechanical Engineering

Harshad Dilipkumar Matalia _____ Bombay, India
 Tayyab Taherbhai Vohra _____ Bombay, India

Nuclear Engineering

William Lewis Dunn _____ Raleigh
 †Charles Daniel Forney, III _____ Lawndale
 James Peter Oppenheim _____ Greensboro
 †Edward Alfred Starbird _____ Seattle, Wash.

Physics

Terry Smith Dunn _____ Raleigh
 †Thomas Allen Eaves _____ Clinton
 John Thomas May _____ Philadelphia, Penna.

† In Absentia

Psychology

Meredith Clifton McKinney Cary
Carol Elaine Schreuder Raleigh
†Barbara Davenport Slack Raleigh

Rural Sociology

†Tony Ray Deal China Grove
Marsha Dale Fralick Raleigh

Soil Science

†Lloyd Willis Miller, Jr. Candler
Keat Leong Tan Penang, Malaysia

Textile Chemistry

Yung-Hong Yeh Raleigh

Textile Technology

†Yeun-Jong Chou Taiwan, China
Rakesh Kumar Gupta New Delhi, India
†Roberto Picciotto Guatemala City, Guatemala

Vocational Industrial Education

†Robert Louis Miller Trenton, N. J.

Zoology

Carol Jean Chacto Jacksonville
Reynard Kenneth McClusky Raleigh

† In Absentia

Doctor of Education Degrees

- Jimmie Wallace Babb, Adult Education
Gastonia, North Carolina
Dissertation: Judicial Opinions Governing Procedural Due Process Applicable to Students in the North Carolina Community College System. (Under the direction of Charles J. Law, Jr., and Robert John Dolan).
- Marcus Randall Barnett, Adult Education
Willisburg, Kentucky
Dissertation: The Effects of Organizational Change on Job Satisfaction of Employees. (Under the direction of Edgar John Boone).
- Norris Hines Bell, Adult Education
Asheville, North Carolina
Dissertation: Leadership Effectiveness within the North Carolina Department of Community Colleges: An Application and Extension of F. E. Fiedler's Contingency Model to Coacting Groups. (Under the direction of Robert J. Dolan).
- James Bryan Brooks, Adult Education
Reidsville, North Carolina
Dissertation: An Analysis of Community College Faculty Morale and Selected Factors. (Under the direction of Edgar John Boone).
- Lawrence Joseph Cox, Adult Education
Manhattan, Kansas
Dissertation: The Development of Criteria for the Evaluation of the On-going Job Performance of County Extension Employees. (Under the direction of William Lester Carpenter and Robert John Dolan).
- William L. Flowers, Jr., Adult Education
Chapel Hill, North Carolina
Dissertation: The Community Action Movement in North Carolina. (Under the direction of Edgar John Boone).
- Betsy Hodges Harper, Adult Education
Grifton, North Carolina
Dissertation: Beliefs Held by Selected Groups Regarding the North Carolina Community College System. (Under the direction of Edgar John Boone and Charles James Law, Jr.).
- Robert Eugene Honnold, Adult Education
Winamac, Indiana
Dissertation: An Analytical Study of the Extension Staff Members' Expectations of the Programming Roles of Area Extension Agents and State Specialists in the Indiana Multi-County Extension Structure. (Under the direction of Edgar John Boone).
- James Rene LaForest, Adult Education
Essex, New York
Dissertation: Relation of Critical Thinking to Program Planning. (Under the direction of Edgar John Boone).

- Logan Thompson Louderback, Adult Education
Mt. Olivet, Kentucky
- Dissertation: The Effects on Job Satisfaction by Changing the Job of Extension Agents from a Generalist to an Area Specialist. (Under the direction of Edgar John Boone).
- Dan Wayne Moore, Adult Education
Raleigh, North Carolina
- Dissertation: The Influence of the Structure of Belief-Disbelief Systems on Individual Behavior. (Under the direction of John Marshall Peters and Emily H. Quinn).
- Charles Henry Polk, Adult Education
Lufkin, Texas
- Dissertation: The Application of General Systems Theory to Program Planning. (Under the direction of John Marshall Peters).
- Charles Leon Sapp, Adult Education
Mount Olive, North Carolina
- Dissertation: John Calvin, Humanist Educator: The History of Ideas and Their Relationship to Social Change. (Under the direction of George Darrell Russell).
- Hazel Christine Small, Adult Education
Cary, North Carolina
- Dissertation: An Investigation into the Relationship between Self-Concept and the Effects of Various Schedules of Reinforcement on Learning Performances of Undereducated Adults Enrolled in a CAI Program at the Adult Learning Resources Center at North Carolina State University, Raleigh, North Carolina. (Under the direction of Emily H. Quinn).
- James Earl Vann, Adult Education
Clinton, North Carolina
- Dissertation: North Carolina Legislators' Perception of the North Carolina Community College System. (Under the direction of Robert John Dolan).

Doctor of Philosophy Degrees

- Bennett Ray Baird, Chemical Engineering
Raleigh, North Carolina
- Dissertation: The Effect of Polymer Molecular Weight, Molecular Weight Distribution, and Orientation on the Rate of Sorption of n-Pentane by Glassy Polystyrene. (Under the direction of Dr. Harold Bruce Hopfenberg and Dr. Vivian Thomas Stannett).
- † Gary Wayne Bennett, Entomology
Lake Charles, Louisiana
- Dissertation: The Response of Physiologically Resistant and Susceptible German Cockroaches, *Blattella germanica* (Linnaeus), (Orthoptera:Blattellidae), to Spray Additives. (Under the direction of Charles Gerald Wright).

- Roger Lee Blair, Forestry
Polo, Illinois
- Dissertation: Quantitative Inheritance of Resistance to Fusiform Rust in Loblolly Pine. (Under the direction of Bruce J. Zobel).
- † David Winton Bolen, Applied Mathematics
Lexington, Virginia
- Dissertation: A Random Walk with a Drift Arising from a Learning Model. (Under the direction of John William Bishir).
- Leon DeCastro Bonner, Jr., Wood and Paper Science
Aurora, North Carolina
- Dissertation: The Ultrastructure and Polymer Composition of Intercellular Passageways in Yellow-Poplar. (Under the direction of Richard Joseph Thomas).
- Theodore George Brna, Mechanical Engineering
Blacksburg, Virginia
- Dissertation: Moving Arcs in Air under Vacuum. (Under the direction of Dr. James Clifford Williams, III).
- † Azucena Lantican Carpena, Genetics
Los Banos, Laguna, Philippines
- Dissertation: Two-way Selection for Rate of Maize Seed Germination under Selected Levels of Moisture Stress. (Under the direction of Warren Durward Hanson).
- Sabir Hasan Mubarak Dahir, Civil Engineering
Raleigh, North Carolina
- Dissertation: Skid Resistance and Wear Properties of Aggregates for Paving Mixtures. (Under the direction of Wesley Grigg Mullen).
- † Clarence Edwards Davis, Experimental Statistics
Waco, Texas
- Dissertation: Some Measures of Skewness. (Under the direction of Dana Quade).
- † Frank Ripley Fenton, Animal Science
Williamstown, West Virginia
- Dissertation: Stress as a Factor in Early Embryonic Mortality in the Mouse. (Under the direction of Lester Curtis Ulberg).
- † Hota Venkata Surya Ganga Rao, Civil Engineering
Rajahmundry, Andhra Pradesh, India
- Dissertation: Rectangular Prestressed Concrete Beams under Combined Bending and Torsion. (Under the direction of Paul Zung-Teh Zia).
- Paul Pannell Graham, Food Science
Blacksburg, Virginia
- Dissertation: The Bacterial Flora of Prefrozen Dry-cured Ham and Its Relationship to Quality. (Under the direction of Thomas Nelson Blumer).

† In Absentia

- † Walton Carlyle Gregory, Experimental Statistics
Raleigh, North Carolina
Dissertation: Design Procedures and Use of Prior Information in the Estimation of Parameters of the Non-Linear Model $\eta = a \cdot \beta y^2$. (Under the direction of Richard L. Anderson).
- Noal Cope Harbertson, Applied Mathematics
Ogden, Utah
Dissertation: Integral Manifolds for Perturbed Nonlinear Differential Equations. (Under the direction of Raimond Aldrich Struble).
- George Thomas Holmes, III, Electrical Engineering
Raleigh, North Carolina
Dissertation: Synthesis of Optimum Physically Realizable Aperture Field Distributions. (Under the direction of Donald Robert Rhodes).
- Roger Alan Jones, Materials Engineering
Reidsville, North Carolina
Dissertation: The Atomic Arrangement in Compounds Based on the Ti_2Ni Structure Type. (Under the direction of Hans Heinrich Stadelmaier).
- James Frank Kauffman, Electrical Engineering
Princeton, Missouri
Dissertation: Microwave Lenses for Amplitude and Phase Transformation. (Under the direction of Gerhard Karl Megla).
- Clarence Wesley Kitchens, Jr., Engineering Mechanics
Alexandria, Virginia
Dissertation: Vortex Flows of Second-Order Non-Newtonian Liquids. (Under the direction of Tien Sun Chang).
- Daniel Wood Krider, Applied Mathematics
Statesville, North Carolina
Dissertation: Localization of Non-commutative Rings. (Under the direction of Kwangil Koh).
- † Chih-Cheng Ku, Civil Engineering
Tainan, Taiwan, China
Dissertation: The Influence of Non-Homogeneity on the Stresses and Displacements in Sand. (Under the direction of Harvey Edward Wahls).
- Eun Sul Lee, Experimental Statistics and Rural Sociology
Taejon, Korea.
Dissertation: Aspects of Institutional Mobility Patterns of Chemists in Higher Education. (Under the direction of Charles Horace Hamilton and Charles Harry Proctor).
- Thomas Tyler Lillich, Microbiology
Cincinnati, Ohio
Dissertation: Amino Acid Metabolism in *Rhizobium japonicum*. (Under the direction of Gerald Hugh Elkan).

† In Absentia

- James David May, Physiology
Calhoun City, Mississippi
- Dissertation: Studies on the Immune Response of Bursectomized Chickens. (Under the direction of Charles H. Hill).
- Vasantkumar Mansukhlal Mehta, Economics (Degree granted posthumously).
Fort Songadh, Gujarat, India
- Dissertation: India's Position in the World Peanut and Peanut Oil Markets. (Under the direction of Richard Adams King).
- † Robert Joseph Miller, Zoology
Hannibal, Missouri
- Dissertation: Distribution and Energetics of an Estuarine Population of the Ctenophore, *Mnemiopsis leidyi*. (Under the direction of John Eyres Hobbie).
- † Michael Austin Morgan, Soil Science
Dublin, Ireland
- Dissertation: Direct and Indirect Effects of Calcium and Magnesium on a Proposed Nitrate Absorption Mechanism by Higher Plants. (Under the direction of William A. Jackson).
- Samiha Aly Mourad, Nuclear Engineering
Cairo, Egypt
- Dissertation: The Scattering of Partially Polarized Light in Plane-Parallel Atmospheres. (Under the direction of Charles Edward Siewert).
- Ralph Arrelus Nelson, Jr., Mechanical Engineering
Winston-Salem, North Carolina
- Dissertation: A Mathematical Model for the Class V Flexensional Underwater Acoustic Transducer. (Under the direction of Larry Herbert Royster).
- Vasantrao Ramchanderrao Nivargikar, Civil Engineering
Poona, Bombay, India.
- Dissertation: The Influence of Soil Structure on the Shear Strength Characteristics of Compacted Kaolinite. (Under the direction of Leonard Jay Langfelder).
- † Fritz Hermann Ernst Oertel, Jr., Mechanical Engineering
Bel Air, Maryland
- Dissertation: Two-Wavelength Laser Interferometry of a Nonequilibrium Shock Layer. (Under the direction of James Clifford Williams, III).
- † Arthur Frank Olah, Plant Pathology
Fairfield, Connecticut
- Dissertation: Glycosidase and Flavonoid Composition of Fungal-Infected Alfalfa. (Under the direction of Robert T. Sherwood).
- Roy Herman Propst, Electrical Engineering
Spencer, North Carolina
- Dissertation: The Calculation of Performance Measures for Pattern Recognition Systems. (Under the direction of Alfred John Goetze and John Benjamin O'Neal, Jr.).

† In Absentia

- Herbert William Scheld, Jr., Microbiology
Statesville, North Carolina
- Dissertation: Studies on the Physiology of Spore Germination and Growth of the Basidiomycete *Lenzites saepiaria*. (Under the direction of Jerome John Perry).
- Albert Mason Smith, Zoology
Elizabeth City, North Carolina
- Dissertation: A study of the Immunoglobulins and the Immune Responses of the Carp, *Cyprinus carpio*, to Sheep Erythrocytes and to a Hapten Substituted Protein 2,4-Dinitrophenyl-Bovine Serum Albumin. (Under the direction of John Frederick Roberts and Michael Potter, M.D.).
- † John Anthony Vesely, Animal Science
Lethbridge, Alberta, Canada
- Dissertation: Conventional and Empirical Selection Indexes for Beef Cattle. (Under the direction of Odis Wayne Robinson).
- Manmohan Krishan Wig, Industrial Engineering
Corning, New York
- Dissertation: Diophantine Programming and the Stock Cutting Problem. (Under the direction of Salah E. Elmaghraby).
- Lindsay Wallace Wood, Zoology
Cleveland, Ohio
- Dissertation: The Role of Estuarine Sediment Microorganisms in the Uptake of Organic Solutes Under Aerobic Conditions. (Under the direction of John Eyres Hobbie).
- Warren Hoyle Young, Jr., Mechanical Engineering
Burgaw, North Carolina
- Dissertation: Laminar Boundary Layer on a Lifting Rotor in Forward Flight. (Under the direction of James Clifford Williams, III).

DEGREES CONFERRED

July 18, 1969

August 29, 1969

January 23, 1970

School of Agriculture and Life Sciences



BACHELOR OF SCIENCE

Agricultural Economics

Norman Lee Cox (July, 1969) Four Oaks
James Stanton Gay (January, 1970) Kittrell
Charles Boyd Kenley, Jr. (January, 1970) Gastonia
Roy Doggett Whitaker, Jr. (January, 1970) Newberry, S. C.

Agronomy

Thomas Hill Shaw (January, 1970) Durham
Larry Sherrill Stephenson (July, 1969) Angier
James Milton Vaughan (August, 1969) Murfreesboro

Animal Science

Thomas Edward Allen (July, 1969) Asheboro
William Rex Bell (July, 1969) Statesville
Joseph Patton Chockley (January, 1970) Mebane
Elmer Ellis Creech (January, 1970) Beulaville
John Pieter DeJong (January, 1970) Pinetown
James Clinton McCaskill (January, 1970) Carthage
Roberto Mutis (January, 1970) Bucaramanga, Colombia
Kenneth Weid Shoffner (January, 1970) Burlington
Barbara Willis Sohrweide (January, 1970) Syracuse, N. Y.
William Nelson Waters, Jr. (January, 1970) Faison
Gary Noel Wells (January, 1970) Castile, N. Y.

Biological and Agricultural Engineering

James Hedley Davenport (January, 1970) Robersonville
Richard Hillman Davis (July, 1969) Pikeville
Cletus Edwin Lineberry (January, 1970) Staley
James Brant Satterwhite, II (July, 1969) Henderson
Robert Mike Thomas (August, 1969) Sanford

Biological Sciences

Martin George Hyatt (January, 1970) _____ Raleigh
 Paul Bryan Mauney, Jr. (July, 1969) _____ Gastonia

Botany

Walter Bunch Turner, Jr. (July, 1969) _____ Shelby

Crop Science

Frank Cale Winslow (January, 1970) _____ Hertford

Food Science

Elizabeth Orellana (January, 1970) _____ San Miguel, El Salvador

Horticultural Science

Larry Alton Dingman (July, 1969) _____ Jacksonville, Fla.
 Ernie Lee Hussey (July, 1969) _____ Robbins
 John Barry Laughter (July, 1969) _____ Hendersonville

Poultry Science

Timothy Lee Tucker (January, 1970) _____ Pilot Mountain

Rural Sociology

Louis J. Finkle (January, 1970) _____ Raleigh
 Linda Celentano Yarborough (January, 1970) _____ Sanford

Soil Science

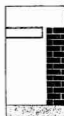
David Coltrane Barker (July, 1969) _____ Lumberton
 Jack Arnold Best (January, 1970) _____ Elizabeth City
 Boyce Landreth Harvey (January, 1970) _____ Walnut Cove

Zoology

Prescott Huntley Brownell (January, 1970) _____ Brevard
 **Gregory Joseph Dray (January, 1970) _____ Warren, Ohio
 Richard Curtis Drum (August, 1969) _____ Statesville
 *Robert Donald Follweiler (January, 1970) _____ Allentown, Penna.
 Sidney Raymond High, II (January, 1970) _____ Fayetteville
 Thomas David Holley, Jr. (January, 1970) _____ Colerain
 James Donald Jones (January, 1970) _____ Mocksville
 Larrie Robert Landino (July, 1969) _____ Easton, Penna.
 Edwin Britt Martin, Jr. (August, 1969) _____ Fayetteville
 Robert Harrison Pleasants (August, 1969) _____ Cary
 John Thomas Pye (January, 1970) _____ Forest City
 Dewey Eugene Raynor (July, 1969) _____ Benson
 Larry Jobe Roberts (January, 1970) _____ Greenville
 David Conrad Russell (January, 1970) _____ Thomasville
 Richard Alan Schultz (January, 1970) _____ Haddonfield, N. J.
 William Aubrey Shepherd (July, 1969) _____ Durham
 *Kenneth Lynn Teague (July, 1969) _____ Asheboro

* Honors ** High Honors

School of Design



BACHELOR OF ARCHITECTURE

Mano Sophark (July, 1969) Bangkok, Thailand

School of Education



BACHELOR OF SCIENCE IN EDUCATION

Agricultural Education

John Thomas Butler, Jr. (January, 1970) Windsor, Va.
Wilbur Ray Daniels (January, 1970) Windsor
Ronald Chester Faulk (January, 1970) Sanford
William Edwin Hobbs, Jr. (January, 1970) Hallsboro
David Lawrence Kelly, Jr. (January, 1970) Morven
Howard Beam Reinhardt (January, 1970) Maiden
Cyrus Cordell Vernon (January, 1970) Yanceyville
Roy Lee Vestal (January, 1970) Kenansville

Industrial Arts Education

John Edgar Brown, Jr. (January, 1970) Yadkinville
Patrick Lee Pope (January, 1970) Raleigh
James Edward Potts (August, 1969) Thomasville
John Peter Ristaino, Jr. (January, 1970) Fayetteville
William Lawrence Stroud (January, 1970) Statesville
Johnny Gene Watkins (January, 1970) Wilmington
Marshall Thomas Watkins (January, 1970) Raleigh

Mathematics Education

Roderick McIver Allen, III (January, 1970) Plymouth
Ellen Anthe Birch (January, 1970) Raleigh
Charles David Bowers (January, 1970) Jefferson
Frederick William Clarke (January, 1970) Watertown, N. Y.
Robert Crawford Evans, III (January, 1970) Raleigh
John Deane Irving (July, 1969) Kinston
Linda Warren Jones (January, 1970) Goldsboro
Annie Isabel Lee (January, 1970) Washington

Sara Kathryn Miller (January, 1970)	_____	Raleigh
William Richard Mitchell (January, 1970)	_____	Windsor
Jimmie Levi Penny, Jr. (January, 1970)	_____	Raleigh
*Donna Anthony Proffit (January, 1970)	_____	North Wilkesboro
Bertram Leonard Reese (January, 1970)	_____	Macon, Ga.
*Cynthia Dianne Speer Steelman (August, 1969)	_____	East Bend
Paul Stephen Vuncannon (January, 1970)	_____	Asheboro

Science Education

Mary Frances Harper (January, 1970)	_____	Albertson
*Reenie Edna May (January, 1970)	_____	Louisburg
Thomas Allen Myatt (July, 1969)	_____	Martin, Tenn.
Thomas Roger Turner (January, 1970)	_____	Elizabeth City
Alice Kathryn Young (January, 1970)	_____	Raleigh

Technical Education

Dalton Ray Harrison, Jr. (January, 1970)	_____	Raleigh
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Vocational Industrial Education

Randal Glenn Talton (January, 1970)	_____	Atlantic Beach
Walter Herman Timm, Jr. (January, 1970)	_____	South Amboy, N. J.
Joseph Mark Webb, Jr. (August, 1969)	_____	Louisburg

School of Engineering



BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

Robert Smith Corry (August, 1969)	_____	Charlotte
Ernest Wayne Jessup (August, 1969)	_____	Siler City
Walter Ray Morgan (August, 1969)	_____	Burlington
**Lamont Rozelle Poole (January, 1970)	_____	Spencer

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Roy Edward Danaher (August, 1969)	_____	Elizabeth City
Charles Henry McLean (July, 1969)	_____	Medellin, Colombia, S. A.
Filadelfo Rafael Panza (August, 1969)	_____	San Cayetano, Bolivar, Colombia
Michael David Rothrock (July, 1969)	_____	Winston-Salem
Donald Eugene Teague (July, 1969)	_____	Thomasville

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

William Perkins Berry (July, 1969)	_____	Norfolk, Va.
William Bruce Brigman (July, 1969)	_____	Hamlet
James Kyle Cave (January, 1970)	_____	Dobson

* Honors ** High Honors

Donald Reid Conner (January, 1970)	Windsor
Jerry Ray Dudley (January, 1970)	Clinton
James Robert Fogleman (January, 1970)	Liberty
Ronald Lee Hiatt (July, 1969)	High Point
Jonah Winfred Hill, Jr. (July, 1969)	Monroe
Joseph Kermit Hoffman (January, 1970)	Gastonia
David Lee Hüssinger (January, 1970)	Bronx, N. Y.
Wilis Keglers (July, 1969)	Raleigh
John Currie McFadyen (January, 1970)	Raeform
Salah John Maluf (July, 1969)	Beirut, Lebanon
Harold Hermon Miller (January, 1970)	Raleigh
Blaine Andrew Mills (July, 1969)	Jacksonville
Thavachwong Na-Chiangmai (January, 1970)	Chiangmai, Thailand
* Franklin Hugh Newkirk (January, 1970)	Willard
Gary Edgar Parker (January, 1970)	Morganton
Benton Gray Payne (July, 1969)	Dobson
Dewey Lee Phillips (August, 1969)	Dallas
Joseph Benjamin Pollock, Jr. (January, 1970)	Swansboro
Lubin Victor Prevatt (January, 1970)	Lumberton
Larry Hamilton Sams (January, 1970)	Asheville
Phillip Carl Thomas (January, 1970)	Monroe
Thomas Allen Wahab (January, 1970)	Warsaw

BACHELOR OF SCIENCE IN CIVIL ENGINEERING CONSTRUCTION OPTION

Robert Sales Bruce (January, 1970)	Murphy
Benny Lee Davis, Jr. (January, 1970)	Washington
Walter Thomas Garriss, Jr. (January, 1970)	Raleigh
Steven Clifford Kolaski (January, 1970)	Charlotte
Jerry Walter Simpson (July, 1969)	Raleigh
Edward William Wagoner (July, 1969)	Salisbury

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Gregory Lee Booth (August, 1969)	Raleigh
Walter Lee Brothers (August, 1969)	Winston-Salem
Thomas Brainerd Busey (August, 1969)	Altavista, Va.
Edward Lawson Cabaniss (July, 1969)	Shelby
John Earl Cartwright, Jr. (July, 1969)	Camden
David Earl Coates (January, 1970)	Hendersonville
William Cracraft Cooke, Jr. (January, 1970)	Charlotte
Robert Herman Daughtridge (January, 1970)	Rocky Mount
Bruce Carl Doerle (July, 1969)	Media, Penna.
James Nicholas England, III (August, 1969)	Elizabeth City
Farhad Hakimian (January, 1970)	Teheran, Iran
Kenneth Lee Haywood (January, 1970)	Denton
Robert Thornton Ihrman (January, 1970)	Alexandria, Va.
Chandra Premkumar Ratnaraj Immanuel (August, 1969)	Madras, India
Orville Crowder Jones, Jr. (July, 1969)	Pantego
Edward Khalily (July, 1969)	Teheran, Iran
Leonard Dwayne Meeks (January, 1970)	Eden
John Marvin Robinson (January, 1970)	Durham
William Gaston Robinson, Jr. (August, 1969)	Winston-Salem
Anise Khalid Shihab (January, 1970)	Beirut, Lebanon
Richard Hedden Smeaton (January, 1970)	Bloomfield, N. J.

* Honors

Robert Edward Tripp, III (January, 1970)	Raleigh
Lawrence Ronald Turner (January, 1970)	Washington, D. C.
Bobby James Watkins (August, 1969)	Zebulon
Thomas Hayward Weiss (January, 1969)	Durham
Charles Randy Wicker (July, 1969)	Erwin

BACHELOR OF SCIENCE IN ENGINEERING OPERATIONS

Steve Fleming Aiken (July, 1969)	Lillington
Ismael Enrique Albanex (July, 1969)	Caracas, Venezuela
David Wesley Biggers (January, 1970)	Morganton
Randall Eugene Cole (January, 1970)	High Point
James Michael Coleman, III (July, 1969)	Raleigh
Gregory Stewart Coulson (January, 1970)	Statesville
Francisco Alesandro Dalmay (August, 1969)	Quito, Ecuador
Jarvis Louis Daniel (January, 1970)	Black Creek
Edwin Lawrence Davis (January, 1970)	Carthage
John Kirkland Denny (July, 1969)	Wilson
James Edward Devitt (January, 1970)	Durham
William Hassell Duncan, Jr. (January, 1970)	Greensboro
Cyrus Melvin Edson, Jr. (January, 1970)	Rocky Mount
Robert Deleno Flynn (August, 1969)	Gibsonville
Andrew Joseph Gillespie, III (January, 1970)	Salisbury
Robert Marion Glossip (January, 1970)	Snow Hill
Thomas Ritchie Glover (January, 1970)	Salisbury
Earl Goodman, Jr. (August, 1969)	Wilmington
Richard Lynn Gray (January, 1970)	Concord
Harlen Don Greene (January, 1970)	Cary
John Hassell Griffin (August, 1969)	Rocky Mount
James Charles Gurley (January, 1970)	Durham
George Hall, III (January, 1970)	Winton
Jerry Winfred Hilliard (January, 1970)	Pleasant Garden
Caldwell Augustus Holbrook, Jr. (August, 1969)	Albemarle
Donald Alfred Johnson (January, 1970)	Lima, Peru
Charles Ronald Kern (January, 1970)	Star
William Perry Kinken (January, 1970)	Canton
Lyman Lennor Kinlaw, Jr. (January, 1970)	Wilmington
Gene Austin Kirby (July, 1969)	Morganton
Roger Floyd Kissam, Jr. (January, 1970)	Old Fort
Dale Courtney Link (January, 1970)	West Palm Beach, Fla.
Randall Anguish Lowery, III (January, 1970)	Statesville
John Robert McAlpine, IV (July, 1969)	Charlotte
Ronald Lynn McLean (August, 1969)	Raleigh
David Darden Marks (January, 1970)	Raleigh
Robert Wilson Massengill (January, 1970)	Raleigh
Claud Everett Moon, Jr. (January, 1970)	Charlotte
Charles Franklin Moore (January, 1970)	Marshville
Robert Gillespie Nichols (January, 1970)	Towson, Md.
Ronald Michael Palmer (January, 1970)	Raleigh
Hal Dennis Pope (January, 1970)	Havelock
Bryan Kennon Powers (January, 1970)	Roanoke, Va.
Randolph Jackson Reid (January, 1970)	Asheville
** Robert Neill Shell (August, 1969)	Burlington
Ernest Leon Russell, Jr. (July, 1969)	Atlantic Beach, Fla.
Terry Lee Sams (July, 1969)	Asheville

** High Honors

Jay Tyler Shorkley (July, 1969)	Burlington
Rodney Victor Smith (August, 1969)	Raleigh
Keith Blair Stephens (July, 1969)	Cullowhee
Robert Malcolm Stuckey (July, 1969)	Charlotte
William Ernest Sykes (January, 1970)	Portsmouth, Va.
Marvin Oscar Tharp, Jr. (January, 1970)	Vineland, N. J.
Stephen Childers Thomas (January, 1970)	Kannapolis
James Eugene Tinkler (July, 1969)	Cliffside
Michael Alton Van Horn (January, 1970)	Winston-Salem
Keith Wayne Waddell (July, 1969)	Canton
*Gary Kenneth Walker (August, 1969)	Marion
George Preher Watson, Jr. (January, 1970)	Charlotte
*Honors **High-Honors	
Donald Leroy Weinhold, Jr. (January, 1970)	Salisbury
Morty Hugh Weisselberg (January, 1970)	Lima, Peru
Lavon Wilkinson (August, 1969)	Raleigh
Ronnie Lee Willard (August, 1969)	Winston-Salem
George Stephen Wilson (January, 1970)	Atlanta, Ga.
William Terry Womack (January, 1970)	Franklin

BACHELOR OF SCIENCE IN ENGINEERING MECHANICS

*James Aiken Kishpaugh (January, 1970)	Hendersonville
**James Howard Stanley (August, 1969)	Hampton, Va.

BACHELOR OF SCIENCE IN FURNITURE MANUFACTURING AND MANAGEMENT

Jerry Mason Hux (January, 1970)	Raleigh
Gary Lynn Keener (August, 1969)	Charlotte
Marcus Clifton King (January, 1970)	Durham

BACHELOR OF SCIENCE IN GEOLOGICAL ENGINEERING

James Carson Coffey (January, 1970)	Lenoir
George Frederic Loeslein, Jr. (July, 1969)	Springfield, Va.
Bryson Douglas Trexler, Jr. (January, 1970)	New London
Clyde Carlton Wheeler, Jr. (January, 1970)	Durham
Rex Orlando Wilson, Jr. (July, 1969)	Spruce Pine
Charles Ray Wiseman, Jr. (January, 1970)	Spruce Pine

BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING

Richard Louis Brooks (August, 1969)	Greensboro
Thomas Roger DuMontier (August, 1969)	Charlotte
Ronald Charles Leatherwood (January, 1970)	Waynesville
Ralph Henry Long, III (July, 1969)	Hyattsville, Md.
Sherwood Godfrey McNeil (July, 1969)	Bolivia
James Ernest Snakenberg, Jr. (January, 1970)	Raleigh
Roger Enoise White (July, 1969)	High Point

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

*Robert Maynard Adams (January, 1970)	Trenton
*David Franklin Caudill (January, 1970)	Sparta
Ernest Randolph Chandler (July, 1969)	South Boston, Va.

* Honors ** High Honors

Carl Thomas Cole (July, 1969)	Durham
Michael Francis Connelly (August, 1969)	Wilmington, Del.
Arthur Landon Davies, III (August, 1969)	New Canaan, Conn.
William Louis Davis (January, 1970)	Jamesville
Robert Allison Greene (August, 1969)	Goldsboro
Leslie Philmon Ham (July, 1969)	Goldsboro
Bill Heath Heyer (August, 1969)	Charlotte
Jesse Preston Jones, Jr. (January, 1970)	Charlotte
Jimmie Claude Landers (July, 1969)	Marshall
Stephen Charles McEntyre (July, 1969)	Columbus
Harry Venable Martin (January, 1970)	Winston-Salem
Lawrence Lee Meares (August, 1969)	Clarkton
*Dewey Anthony Petree (January, 1970)	Lexington
Willis Hardy Reeves, Jr. (August, 1969)	Clinton
James Heath Roberts (July, 1969)	Raleigh
*Johnny Stedman Stewart (August, 1969)	Carthage
Jerald Martin Waldorf (July, 1969)	Wilmington
Jack Earl Walters (August, 1969)	Greensboro
David Mauney Ward (July, 1969)	Lincolnton
Richard Terry Wood (July, 1969)	Salisbury
Kenneth Warren Woodard, Jr. (January, 1970)	Hayesville

BACHELOR OF SCIENCE IN METALLURGICAL ENGINEERING

*James Michael Rigsbee (August, 1969)	Durham
Eugene Hugh Roarty (August, 1969)	Beaufort

BACHELOR OF SCIENCE IN NUCLEAR ENGINEERING

George Franklin Cameron, III (August, 1969)	Fayetteville
John Haigis (January, 1970)	Dayton, Ky.
Craig Martin Kuehn (August, 1969)	Fayetteville
*William Stuart MacDonald (August, 1969)	Starkville, Miss.
Robert Stanley Piascik (August, 1969)	Westfield, Mass.
Robert Alexander Williams (January, 1970)	Fallston

School of Forest Resources



BACHELOR OF SCIENCE IN CONSERVATION

Jointly Administered by the School of Forest Resources and the
School of Agriculture and Life Sciences

William Joseph Harrell (January, 1970)	Seaboard
Jeffrey Frank Havel (January, 1970)	Pawleys Island, S. C.

BACHELOR OF SCIENCE IN FORESTRY

Howard Everett Cannell, Jr. (January, 1970)	Beverly, Mass.
Stephen Douglas Dianis (January, 1970)	Bardstown, Ky.
*Thomas John Drew (January, 1970)	Perth, Australia
Donald Baldwin Elder (January, 1970)	High Point
Tran Lecurtis Forbes (January, 1970)	Shawboro
Thomas Wade Hardison (January, 1970)	New Bern
William Joseph Harrell (January, 1970)	Seaboard
Boyce Landreth Harvey (January, 1970)	Walnut Cove
Wayne Adelbert Hausknecht (January, 1970)	Athens, Penna.
Charles Boyd Kenley, Jr. (January, 1970)	Gastonia
Paul Jones Kiker, III (January, 1970)	Wadesboro
*Edwin Andrew Listerman (July, 1969)	Fort Thomas, Ky.
Norman Bruce McCulloch, Jr. (August, 1969)	Elizabethtown
J. Warren Ranney (August, 1969)	Raleigh
Brian John Raycher (August, 1969)	Murfreesboro, Tenn.
James Slade Rhodes, III (January, 1970)	Williamston
Walter Ghormley Roberts (July, 1969)	Morgantown
Danny Dale Sharpe (July, 1969)	Lincolnton
Richard Lyda Starnes (August, 1969)	Hendersonville

BACHELOR OF SCIENCE IN PULP AND PAPER SCIENCE AND TECHNOLOGY

Watson Boyd DeVane (July, 1969)	Elizabethtown
Charles Sherer Gardner, Jr. (July, 1969)	Plymouth
Mark David Pask (January, 1970)	Ridgewood, N. J.

BACHELOR OF SCIENCE IN RECREATION AND PARK ADMINISTRATION

Louis Emil Biega, Jr. (August, 1969)	Aliquippa, Penna.
Edward Glenn Carr, Jr. (January, 1970)	Goldsboro
Donald Whitney Clark (January, 1970)	Fairfax, Va.
Charles Hubert Debnam, Jr. (January, 1970)	Knightdale
Ralph Olin Dulany, II (January, 1970)	Charlotte
Paul Clayton Hastings, Jr. (August, 1969)	Valdese
Richard Dan Hegler (August, 1969)	Lexington
William Wilson Henning (January, 1970)	Covington, Va.
Lawrence Earl Lehning (August, 1969)	Raleigh
*James Isaac Middleton, Jr. (January, 1970)	Garner
John Edwin Perry, Jr. (July, 1969)	Saratoga
William Curtis Price, Jr. (January, 1970)	Raleigh
John Macon Rowland (August, 1969)	Raleigh
George Bland Sawyer (August, 1969)	Vanceboro
Joseph Wagner Smith (January, 1970)	Aberdeen
Rebecca Ann Southerland (August, 1969)	Durham
John Paul Teer (January, 1970)	Sweepsonville
Charles Robert Tope (July, 1969)	Aiken, S. C.
Arthur Frank Waleski (January, 1970)	Bassett, Va.
Gary Edwin Yount (January, 1970)	Newton

BACHELOR OF SCIENCE IN WOOD SCIENCE AND TECHNOLOGY

Donald Alan Dozier (January, 1970)	Baldwin
*Barnabas Gabriel Martonffy (August, 1969)	Santiago, Chile

* Honors

School of Liberal Arts



BACHELOR OF ARTS

Clinton Adair Abernethy, Jr. (January, 1970)	Durham
Judy Dowdy Aikin (January, 1970)	Hillsborough
Marvin Eugene Autry (January, 1970)	Greensboro
*Herbert Munro Ayars (January, 1970)	Bridgeton, N. J.
Charles Jeffrey Bailey (July, 1969)	Clinton
William Arthur Barbour (August, 1969)	Morehead City
Betty Dale Baucom (January, 1970)	Raleigh
Rodney Starr Benson (July, 1969)	Burlington
*Nancie Ellen McCampbell Bergeron (January, 1970)	Huntsville, Ala.
*Anna Marie Fontana Biega (January, 1970)	Aliquippa, Penna.
*Louise Ann Blosser (January, 1970)	Raleigh
Nancy Cox Bowers (July, 1969)	Crumpler
Muriel Bradshaw (August, 1969)	Wilmington
Douglas Waddell Brinson (July, 1969)	Raleigh
David Dwight Brown (January, 1970)	Allentown, Penna.
Michael Wilson Cahoon (January, 1970)	Norfolk, Va.
Phillip Byron Calton (July, 1969)	Raleigh
Clark Howell Card (August, 1969)	Raleigh
Barry Milton Clause (July, 1969)	Fayetteville
*Harvey Robert Cox (January, 1970)	Van Buren, Ind.
James Robert Crossland (January, 1970)	Raleigh
Fred Donald Cummings (August, 1969)	Garner
James Loren Dalton (August, 1969)	Raleigh
David George Dillard (January, 1970)	Raleigh
Donald Wayne Draper (August, 1969)	Durham
Sandra Lorraine Ellington (August, 1969)	Raleigh
Robert Marion Evans (July, 1969)	Wallace
Robert Delroy Farmer, II (August, 1969)	Raleigh
Joffre Robert Fisher, Jr. (January, 1970)	Washington
Harry Black Foard (August, 1969)	Shelby
Harold James Foley (January, 1970)	Raleigh
Estella Funchess (August, 1969)	New Bern
Dennis John Gager (August, 1969)	Medford, N. J.
Jean Murray Gay (August, 1969)	Raleigh
Sheila Lucy Gray (January, 1970)	Nanuet, N. Y.
Judy Wallace Greene (August, 1969)	Rutherfordton
Erwin Cason Griffin, Jr. (July, 1969)	Edenton
*Paulette Lewis Hagar (January, 1970)	Raleigh
Martha Lynne Hair (January, 1970)	Fayetteville
*Billy Ray Hall (August, 1969)	Mount Olive
James Oliver Harrington, III (January, 1970)	Winston-Salem
David Leroy Hartsough (January, 1970)	Plant City, Fla.
John Edward Havas (January, 1970)	Martinsville, N. J.

* Honors

Arlie Gilbert Hayes, Jr. (January, 1970)	North Wilkesboro
Robert Edgar Heaton (July, 1969)	Andrews
Douglas Arthur Hoggard (January, 1970)	Madison
Thomas Kemper Hooper (July, 1969)	Gastonia
*Martha Bruce Hughes (July, 1969)	Raleigh
Robert Lee Hughes, Jr. (January, 1970)	Asheboro
Billy Frank Hussey (January, 1970)	Robbins
Arthur Marvin Ingram, Jr. (January, 1970)	Raleigh
Israel Cardona Irizarri (January, 1970)	Newark, Ohio
Sue Carol James (January, 1970)	Raleigh
*Brenda Owen Johnston (January, 1970)	Charlotte
Sidney Louis Kaitz (January, 1970)	Raleigh
**Genevieve Suzanne Kitts (August, 1969)	Paris, France
Clifton Brooks Knight, Jr. (July, 1969)	Raleigh
*Clifton Brooks Knight, Jr. (January, 1970)	Raleigh
William Frank Lane (August, 1969)	Winston-Salem
Paul Allen Leonard (January, 1970)	Lexington
Shannon Douglas Lientz, III (August, 1969)	Richmond, Va.
*Linda Louise Liles (July, 1969)	Wendell
*Paulette Wolf Lotspeich (January, 1970)	Raleigh
Al Lynnwood Lyerly, Jr. (August, 1969)	Franklinville
Sharon Lynn McDonald (August, 1969)	Raleigh
Garland McPherson, II (January, 1970)	Southern Pines
*John Joseph Mann (August, 1969)	Fayetteville
*Vija Markovs (January, 1970)	Saginaw, Mich.
Rodney Lee Marsh (January, 1970)	Raleigh
Edwin Jackson May, Jr. (January, 1970)	Durham
Paul Frizzelle Miller (August, 1969)	Snow Hill
*Linda Hilliard Mitchell (August, 1969)	Raleigh
Richard Lee Mitchell (August, 1969)	Roanoke Rapids
James Maynard Molofsky (July, 1969)	Pikesville, Md.
*Gay Morgan Moore (August, 1969)	Atlanta, Ga.
Patricia Ruth Morris (January, 1970)	Raleigh
Steven Douglas Mullinix (January, 1970)	Wadesboro
Faye Hinnant Neighbors (July, 1969)	Wendell
Henry Allison Page, II (August, 1969)	Pinehurst
Mayo Khon Pan (August, 1969)	Vientiane, Laos
Andrew Culbreth Pate (July, 1969)	Raleigh
*Mary Montgomery Peacock (January, 1970)	Raleigh
*William Eugene Peterson (January, 1970)	San Jose, Calif.
Barbara Nan Pittman (July, 1969)	Lumberton
Thomas Nicholas Platt (August, 1969)	Baltimore, Md.
James Venoy Pressley, Jr. (August, 1969)	Kings Mountain
John Allen Preston (August, 1969)	Columbus, Ga.
**Marie Garner Pugh (January, 1970)	Salisbury
Linda Katherine Rand (July, 1969)	Raleigh
Joseph Terrell Rasberry, III (August, 1969)	Raleigh
Patsy Eubank Ray (January, 1970)	Raleigh
Helene Maria Richmond (January, 1970)	Raleigh
Anthony Simms Riddle (January, 1970)	Greensboro
James Wescott Rigsbee (July, 1969)	Durham
Ronald Vernon Risch (July, 1969)	Lexington
John Irvin Ross (August, 1969)	Reidsville
*Sylvia Ann Scally (January, 1970)	Fayetteville
**Richard McGill Simenton (August, 1969)	Fayetteville

* Honors ** High Honors

Paul Wayne Smith (August, 1969)	.....	Graham
Brian Lamar South (August, 1969)	.....	Columbia, S. C.
Margaret Holjes Stone (January, 1970)	.....	Greensboro
John Edward Swain, III (August, 1969)	.....	Raleigh
Horace Leonard Sykes, Jr. (January, 1970)	.....	Enfield
*Marsha Sessions Teague (January, 1970)	.....	Saginaw, Texas
John Con Teeter, III (January, 1970)	.....	Midland
Stanley Allen Thal (August, 1969)	.....	Longmeadow, Mass.
Stuart McGuire Thomson, Jr. (August, 1969)	.....	Washington
Susan Nimocks Todd (January, 1970)	.....	Fayetteville
**Evelyn Jeanne Torrey (January, 1970)	.....	Braintree, Mass.
*Dallas Otto Tucker, Jr. (July, 1969)	.....	Cary
Gloria Nordan Tucker (July, 1969)	.....	Raleigh
Randolph Howell Turner (January, 1970)	.....	Greenville, S. C.
Robert Lee Underwood, III (July, 1969)	.....	Waynesville
Kathy Sue Wagner (January, 1970)	.....	Lewisville
John Douglas Walker (July, 1969)	.....	Wilmington
Parker Stowell Walsh, Jr. (August, 1969)	.....	Greenville, S. C.
Richard Harold Wilson (January, 1970)	.....	Schenectady, N. Y.
Curtis Beal Yates (July, 1969)	.....	Apex
Aleesa Heidelberg Young (August, 1969)	.....	Raleigh
Thomas William Youngblood (August, 1969)	.....	Fletcher

BACHELOR OF SCIENCE

Robert Gillespie Nichols (January, 1970)	.....	Towson, Md.
Robert Michael Spann (January, 1970)	.....	Closter, N. J.
Samuel Worthy Wilder, Jr. (July, 1969)	.....	Raleigh

School of Physical Sciences and Applied Mathematics



BACHELOR OF SCIENCE IN APPLIED MATHEMATICS

Charles Earl Bright, Jr. (August, 1969)	.....	Raleigh
Larry Carlisle Graves (August, 1969)	.....	Charlotte
John Emery Haluska (January, 1970)	.....	Short Hills, N. J.
James Warwick Harris (July, 1969)	.....	Raleigh
Charles Henry Hartsook, III (July, 1969)	.....	Raleigh
Philip Harold Hubbard (July, 1969)	.....	Cary
Edward Reid Langford (August, 1969)	.....	Thomasville
Virginia Byrum Lorbacher (January, 1970)	.....	Raleigh
Bobby Lee Massey (August, 1969)	.....	Black Mountain
*Donald Terry Metcalf (January, 1970)	.....	Brevard
John Thomas Owens (January, 1970)	.....	Fayetteville
Joseph Floyd Sayles (August, 1969)	.....	Asheville

* Honors ** High Honors

Jeffrey Towe Sparks (July, 1969)	Skyland
Frank Terrell Starrett, Jr. (January, 1970)	High Point
Margaret Faye Stubblefield (January, 1970)	Raleigh
*Evelyn Margaret Thomas (August, 1969)	Raleigh
**Edwin Reade Tripp, III (August, 1969)	Raleigh
Boyd Franklin Vaughan, Jr. (January, 1970)	Greenville, S. C.
Warren Coble Willis (July, 1969)	Sanford

BACHELOR OF SCIENCE IN CHEMISTRY

Alfred Graham Gash (August, 1969)	Raleigh
Theodore Goodson, Jr. (August, 1969)	Indianapolis, Ind.
William Erastus Swain, Jr. (January, 1970)	New Bern
*Kenneth Allen Taylor (August, 1969)	Asheville

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Perry Gwyn Dixon (January, 1970)	Burlington
Michael Fay Donovan (January, 1970)	Winston-Salem
Arthur William Harton (January, 1970)	Durham
Joan Saalfrank Ikard (January, 1970)	Basking Ridge, N. J.

BACHELOR OF SCIENCE IN EXPERIMENTAL STATISTICS

George Marvin Hayes, Jr. (July, 1969)	Durham
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BACHELOR OF ARTS IN GEOLOGY

James Aden Merchant, III (January, 1970)	Decatur, Ala.
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BACHELOR OF SCIENCE IN GEOLOGY

*David Gerard Frank (August, 1969)	Fayetteville
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BACHELOR OF SCIENCE IN PHYSICS

Daniel Eugene Blalock (January, 1970)	Albemarle
*Wolfgang Christian (January, 1970)	Raleigh
Todd Allyn Sabin (August, 1969)	Tavernier, Fla.
Orin Sigmon Whitener, Jr. (August, 1969)	Lenoir

School of Textiles



BACHELOR OF SCIENCE TEXTILE CHEMISTRY

*Charles Louis Goodwin, Jr. (August, 1969)	Raleigh
Tony Randolph Jones (August, 1969)	Stanley
Vernon Reinhardt Ketrone (August, 1969)	Kingsport, Tenn.
*Kin Lam Lee (January, 1970)	Hong Kong
*Jashawant Jamanadas Modi (January, 1970)	Gujarat, India
Charles Sundy Wagner (January, 1970)	Salisbury

BACHELOR OF SCIENCE IN TEXTILE TECHNOLOGY

Michael Kent Apple (January, 1970)	Gibsonville
Pete Bailey, Jr. (January, 1970)	Milledgeville, Ga.
James William Bondurant, Jr. (January, 1970)	Asheboro

* Honors ** High Honors

Edward Wayne Brabble (July, 1969)	Edenton
James Hoyt Braswell, Jr. (January, 1970)	Lumberton
John Bragg Brinson (August, 1969)	Belhaven
Larry William Burgess (August, 1969)	Narrows, Va.
Donald Clark Church (August, 1969)	Lenoir
Linwood Dalton Collins (July, 1969)	Jamestown
Barry Alan Cook (August, 1969)	Durham
John Hall Corbett (January, 1970)	Garner
James Bernard Corbin (January, 1970)	Charlotte
Joseph Russell Davis, Jr. (January, 1970)	Red Oak
Robert James Eastland (August, 1969)	Melbourne, Fla.
Stephen Max Ferree (July, 1969)	Burlington
Victor Fleischman (January, 1970)	Lima, Peru
Carroll Anderson Grant (January, 1970)	Danville, Va.
Michael Scott Hamby (January, 1970)	Raleigh
Mary Gayle Hartis (July, 1969)	Charlotte
George Winslow Hildreth (January, 1970)	Ansonville
David Michael Hogan (January, 1970)	Rockingham
Kelly Byrd Jones (January, 1970)	Albemarle
** Robert Alan Mansfield (January, 1970)	Ontario, Canada
Harold Clinton Mooney (August, 1969)	Mount Airy
John Goff Mooring (January, 1970)	Rocky Mount
** William Steele Morgan (January, 1970)	Anniston, Ala.
William Reid Sawyer, Jr. (July, 1969)	Salisbury
John Thomas Shipman, III (January, 1970)	Hickory
Reginald Irving Tilley, III (January, 1970)	Mount Airy
** Oscar Velez (January, 1970)	Colombia, S. A.
** Logan Lo-Kun Wai (July, 1969)	Hong Kong
** Johnson Chung Keng Wang (July, 1969)	Hong Kong
Charles Kenton Williams, Jr. (January, 1970)	Wilmington
James Eddie Woods (July, 1969)	Drexel
* Stephen Kertland Wrigley (August, 1969)	Ontario, Canada
* Wayne Carroll York (January, 1970)	Ramseur
Donald Chaney Young, Jr. (July, 1969)	High Point
Donald Phillip Young (January, 1970)	Eden

Professional Degrees



CIVIL ENGINEER, TRANSPORTATION OPTION

Thomas Earl Flynn (January, 1970)	Bayville, N. Y.
Leo Anthony Santowasso (July, 1969)	Rahway, N. J.

ELECTRICAL ENGINEER

Dinesh Kumar Agarwala (January, 1970)	Bombay, India
Wyatt Livingstone Brown, Jr. (January, 1970)	Greenville

* Honors

** High Honors

Somboonkiat Kasemsuwan (January, 1970) Bangkok, Thailand
 Norman Taylor Payne, Jr. (January, 1970) Charlotte
 Shantubhai Natverlal Shah (January, 1970) Baroda, India

INDUSTRIAL ENGINEER

Pichit Burapavong (August, 1969) Bangkok, Thailand

MECHANICAL ENGINEER

Kamalbhai Chimanlal Amin (August, 1969) Baroda, India
 Vinodchandra Dhirajlal Desai (July, 1969) Ahmedabad, India

Masters Degrees



MASTER OF AGRICULTURE

Mohamed Mahmoud Abdallah (July, 1969) Raleigh
 Carol Rudyard Baker (August, 1969) Monroe
 Frank Hartwell Baker (July, 1969) Goldsboro
 Nils Carl Melkerson (January, 1970) Orrville, Ohio
 Wilson Folk Neal (August, 1969) Nashville, Tenn.

MASTER OF APPLIED MATHEMATICS

Judy Kay Bradshaw (January, 1970) Raleigh
 Stanley James Cross (January, 1970) Northport, N. Y.
 Jerry Mitchell Edwards (January, 1970) Paducah, Ky.
 Barbara Ann Holley (January, 1970) Arlington, Va.
 Edward Cosby Land, II (January, 1970) Arlington, Va.
 Christine Heinecke Lehmann (January, 1970) Ann Arbor, Mich.
 David Alan Nelson (January, 1970) York, Penna.
 Zygmunt Orzechowski (January, 1970) Philadelphia, Penna.
 Jack Eugene Pennington (January, 1970) Newport News, Va.
 Stephen Charles Smeach (January, 1970) Hanover, Penna.
 Robert Holton Thornton (July, 1969) Raleigh
 William T. Tuttle (January, 1970) Highland, Calif.
 John Jeffrey Warner (January, 1970) Amherst, N. Y.
 Richard Michael Willett (January, 1970) Louisville, Ky.

MASTER OF CIVIL ENGINEERING

John Royster Armfield (August, 1969) Mount Airy
 Arthur Hamilton Baiden, III (July, 1969) Myrtle Beach, S. C.
 Marcel Mercier (July, 1969) Quebec, Canada
 Franklin Roosevelt Price (August, 1969) Tarboro
 William Frank Rosser (July, 1969) Sanford
 Kenneth Edward Wright (July, 1969) Durham

MASTER OF ECONOMICS

William Hartwell Bass, Jr. (January, 1970)	Raleigh
Vicente Boceta (August, 1969)	Madrid, Spain
Brian Humphrey Davey (July, 1969)	Newcastle, England
Ofelia Mendiola Ela (August, 1969)	College, Laguna, Philippines
Preston LeRoy Fowler, III (January, 1970)	Durham
Jack Joseph Grams (August, 1969)	Somerdale, N. J.
Lloyd Feraud Greenly, Jr. (August, 1969)	Monmouth Beach, N. J.
Daniel Eddie Harrell (January, 1970)	Bainbridge, Ga.
Edward Lee Hester, III (August, 1969)	Raleigh
Peadar Caoimhin Mac Canna (January, 1970)	Dublin, Ireland
William Otha Mizelle, Jr. (January, 1970)	Gates
John Gregory Reilly (August, 1969)	Houston, Texas
Richard Emil Rothschild (July, 1969)	Piermont, N. Y.
Donald Richard Tedder (January, 1970)	Red Springs

MASTER OF EDUCATION

Adult Education

Knella G. E. Francis (January, 1970)	Barbuda, British W. Indies
William Floyd Griffin (August, 1969)	Richmond, Va.
Jean Louise Heinig (January, 1970)	Raleigh
Carlos Allan Hunter (August, 1969)	Cartersville, Va.
Seree Khiatbanlue (January, 1970)	Subanburi, Thailand
Romain Joseph Landry (August, 1969)	Bathurst, Canada
Grady Wilson Miller, Jr. (August, 1969)	Raleigh
Marsellette Baker Morgan (August, 1969)	Kinston
Mohammad Fazlur Rahman (July, 1969)	Dacca, East Pakistan
Elaine April Reichelderfer (August, 1969)	Orwigsburg, Penna.
Seppo Olavi Ruuskanen (August, 1969)	Helsinki, Finland
William Rivers Sanderson (August, 1969)	Greenville
Leonard Ralph Sasser (August, 1969)	Elizabethtown
Eudes Coelho Silva (January, 1970)	Rio De Janeiro, Brazil
Charles Glenwood Smith (August, 1969)	Fayetteville
Jefferson Baggett Strickland (January, 1970)	Roseboro
Lloyd Douglas Strickland (January, 1970)	Pine Level
Carol Jean Suskind (August, 1969)	Raleigh
Muriel Arlene Vollum (August, 1969)	Washington, D. C.
James Anthony Weamert (August, 1969)	Laurel, Md.
Nadine Davis Wheaton (August, 1969)	Roanoke, Va.

AGRICULTURAL EDUCATION

David Scott Coble, Sr. (August, 1969)	Garland
Jackie Benton Nordan (August, 1969)	Selma
Hovis Julian Smith (January, 1970)	Goldston

GUIDANCE AND PERSONNEL SERVICES

Mary Lou Argow (July, 1969)	Oxford
Mildred Johnson Barefoot (January, 1970)	Newton Grove
Beverly Scarborough Blackwelder (January, 1970)	Chapel Hill
Annie Rogers Bobo (August, 1969)	Wake Forest
Ronald Richard Boese (August, 1969)	Raleigh
Gilbert Warren Boone (January, 1970)	Spring Hope
Evelyn Thorington Doughty (January, 1970)	Wilmington

Stella Hyatt Forrest (August, 1969)	Wake Forest
Rebecca Suzanne Hare (August, 1969)	Roanoke, Va.
Margaret Carol Lamm Hill (January, 1970)	Raleigh
Lois Barefoot Hood (August, 1969)	Benson
Carolyn Trammell Jennings (January, 1970)	Fayetteville
Carole Noel Kumm (August, 1969)	Raleigh
Verna Lynch Lee (July, 1969)	Hollister
Mary Thompson Lennon (January, 1970)	Clarkton
Joann Lawler MacMillan (January, 1970)	Fayetteville
Ellen Koonce Parker (July, 1969)	Fayetteville
Robert Eugene Parries (August, 1969)	Mount Airy
Paula Ruth Ritchie (July, 1969)	Salisbury
Thomas Stanley Thorne (January, 1970)	Selma
Louise Pridgen Turner (January, 1970)	Whiteville
Mary Sue Dameron Wilson (January, 1970)	Bailey

VOCATIONAL INDUSTRIAL EDUCATION

Robert Lee Barham (August, 1969)	Garner
Riley Oran Carroll (January, 1970)	Cary
Billy Reeves Cates (January, 1970)	Durham
William Henry Edwards (July, 1969)	Goldsboro
Janice Irene Gehres (August, 1969)	Raleigh
William Hendrick Gilmore (January, 1970)	Raleigh
Grover Carlyle Taylor (July, 1969)	Rocky Mount
Alvin Frenz Weigel (August, 1969)	Eau-Gallie, Fla.

MASTER OF ELECTRICAL ENGINEERING

Walter Louis Baker, III (August, 1969)	Burlington
Everette Allen Barefoot, Jr. (July, 1969)	Erwin
Gau-long Kurt Chao (January, 1970)	Taiwan, China
Leonard Credeur (January, 1970)	Rayne, La.
Robert Lee Keyser (July, 1969)	Burlington
Eugene Edward Maller, Jr. (August, 1969)	Fort Wayne, Ind.
Robert Melvin Thomas, Jr. (January, 1970)	Hampton, Va.
Neal Lee Walters (January, 1970)	Raleigh
Charles Edward Weitzel (January, 1970)	Raleigh
David Richard Wyke (August, 1969)	Raleigh

MASTER OF EXPERIMENTAL STATISTICS

Puntipa Charoenying (January, 1970)	Bangkok, Thailand
Robert Andre Cote (January, 1970)	Raleigh
Sandra Faye Holder (January, 1970)	Troy
Priscilla Conyers Porter (January, 1970)	Forest City
Jose Joaquin Villasmil (January, 1970)	Zulia, Venezuela
Marta Lydia Zanelli (January, 1970)	Santa Fe, Argentina

MASTER OF FORESTRY

David DeVaney Chapman (January, 1970)	Arlington, Va.
Noor Muhammad Sarker (August, 1969)	Dacca, Pakistan

MASTER OF HORTICULTURAL SCIENCE

Paul Neal Lineberger (August, 1969)	Dallas
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MASTER OF INDUSTRIAL ENGINEERING

Allan Wendell Rinne (July, 1969) Raleigh

MASTER OF MECHANICAL ENGINEERING

William Keith Clapp, Jr. (January, 1970) Miami, Fla.
 Floyd Joe Farmer (July, 1969) Cary
 Larry Lee Greene (January, 1970) Raleigh
 Jack Isom Lunsford, Jr. (July, 1969) Yadkinville
 Mahesh Jamiyatram Mody (January, 1970) Rajkot, Gujarat, India
 Kalapi Jayantilal Parikh (July, 1969) Baroda, Gujarat, India
 Babubhai Maganbhai Patel (July, 1969) Dabhow, Gujarat, India
 Navinchandra Dahyabhai Patel (January, 1970) Chikhodra, Gujarat, India
 Nitin Jesingbhai Shah (July, 1969) Ahmedabad, India

MASTER OF RURAL SOCIOLOGY

Jerry McLain Wallace (August, 1969) Elizabethtown

MASTER OF TEXTILE TECHNOLOGY

Horace Higgins, Jr. (August, 1969) Burnsville
 James Lindberg Parrish (July, 1969) Bladenboro
 Alex Austin Propst, Jr. (August, 1969) Salisbury
 Gary William Smith (July, 1969) Ontario, Canada

MASTER OF WOOD AND PAPER SCIENCE

Ray Stanley Taylor (January, 1970) Raleigh

MASTER OF ZOOLOGY

Juan Guillermo Baldeig (August, 1969) Santiago, Chile, S. A.

MASTER OF ARTS**English**

Frances Thompson Lewis (August, 1969) Clarkton
 Mary Reynolds Bradshaw Peacock (January, 1970) Raleigh

MASTER OF SCIENCE**Adult Education**

John Robert Cox (January, 1970) Stamford, Conn.

Agricultural Economics

Benjamin Gallegos Jauregui (July, 1969) Guatemala, C. A.
 Jorge Augusto Torros (January, 1970) Lima, Peru

Animal Science

William Joseph Barnes (August, 1969) Laveen, Ariz.
 Larry Eugene Chase (July, 1969) Sterling, Ohio
 Benjamin Quijandria (January, 1970) Lima, Peru

Biochemistry

Donald Joseph Hamm (January, 1970) Java Center, N. Y.

Biological and Agricultural Engineering

James Joseph Boedicker (August, 1969) High Point
Lynn Alan Parnell (August, 1969) Anthony, New Mexico

Botany

Stuart William Akers (August, 1969) Cordell, Okla.
Elliott Herbert Birnbaum (January, 1970) Brooklyn, N. Y.
David Morse DuMond (August, 1969) Chapel Hill
Gerald Franklin Peedin (January, 1970) Pine Level
Lois Zena Poteet (August, 1969) Morganton
Albert Columbus Purvis (August, 1969) Newton Grove

Chemical Engineering

Ronald Harrison Bean (January, 1970) Portsmouth, Va.
Jung Hyang Hyun (January, 1970) Suwon, Korea
Warren Trent Piver (January, 1970) Rochester, N. Y.
George Stephen Prehoda (January, 1970) Flint, Mich.
Walter Neal Reed (January, 1970) Pine Bluff, Ark.
Nipun Manubhai Shah (July, 1969) Ahmedabad, India
Dong Soo Whang (August, 1969) Seoul, Korea

Chemistry

Lawrence Edward Brieady (January, 1970) Buffalo, N. Y.
Robert Donald Wauchope (January, 1970) Brevard
Clifton Woods, III (August, 1969) Charlotte

Civil Engineering

Refaat Adib Abdel Malek (August, 1969) Alexandria, Egypt
William Frank Peacock (January, 1970) Fremont

Crop Science

Ali Maher El-Adl (August, 1969) Raleigh
Robert Daniel McLaughlin (January, 1970) Mooresville
Roy Carlton Parker (January, 1970) Grover
Emel Tarkan (August, 1969) Sinor, Turkey
Nestor Vega (January, 1970) Cabimas, Venezuela, S. A.

Electrical Engineering

Ahmet Nevruz (January, 1970) Ankara, Turkey
Stefanos Leonidas Photiades (January, 1970) Athens, Greece
Arthur Steven Rabinowitz (July, 1969) Raleigh

Engineering Mechanics

James Jerrold Kelly (January, 1970) Charlotte

Entomology

Eugene Anthony Fuzy (January, 1970) Hopewell, Va.
Ross Young Jenkins (August, 1969) Raleigh
Jose H. Lopez (July, 1969) Lima, Peru
Michael Jack Sullivan (January, 1970) Breckenridge, Texas
George Urban Wise (January, 1970) Baltimore, Md.

Food Science

Edward Don Anna (January, 1970) Buffalo, N. Y.
Roy Eugene Carawan (January, 1970) Greenville

Genetics

- Wendell Herbert McKenzie (July, 1969) Spring Valley, Minn.
Alan Ray Proctor (August, 1969) Rocky Mount
Nancy Elizabeth Rose (January, 1970) Fayetteville
William Paul Williams (August, 1969) Aragon, Ga.

Geology

- John Thomas Bowman (January, 1970) Lebanon, Penna.
Orus Fuquay Patterson, III (July, 1969) Sanford

Horticultural Science

- Joseph David Devine, Jr. (January, 1970) Raleigh
Marshall Keith Hill (July, 1969) Saluda

Industrial Engineering

- Stuart Allen Cooper (January, 1970) Winston-Salem
Arup Kumar Mallik (January, 1970) Calcutta, India
Winston Tyree Shearon, Jr. (July, 1969) Raleigh
Prem Singh Sud (January, 1970) New Delhi, India

Materials Engineering

- Rafiq Abedin Bandukwala (January, 1970) Bombay, India
Carl Arthur Shumaker, Jr. (January, 1970) Salisbury
John William Vorberger, Jr. (January, 1970) Erie, Penna.

Mathematics Education

- Abner Mack Harrington (July, 1969) Fairmont

Mechanical Engineering

- Satish Dhirubhai Desai (August, 1969) Gujarat, India
Steve Allen Fox (January, 1970) Granite Falls
Ernest William O'Neil, Jr. (July, 1969) Clayton
Dewey Marion Smith (January, 1970) Hampton, Va.
Charles Clark Thompson (August, 1969) Suffolk, Va.

Metallurgical Engineering

- James Clarke Shugart (July, 1969) Yadkinville

Microbiology

- Joseph Edward Agsten (January, 1970) Raleigh
Barbara Ann Maloney (August, 1969) Park Forest, Ill.
Terry Lynn Miller (August, 1969) Elkview, W. Va.
John Hoyle Ruthledge (August, 1969) Raleigh
Jeffrey Wayne Smith (August, 1969) Skokie, Ill.

Nuclear Engineering

- Richard Kent Cothren (August, 1969) Cary

Physics

- Hector Manuel Dimas (August, 1969) Colombia, S. A.
Anjana J. Gandhi (August, 1969) Gujarat, India
Ratnaprabha Shankerbhai Patel (August, 1969) Gujarat, India
Bennett Michael Smith (August, 1969) Washington, D. C.

Plant Pathology

- James Gordon Baldwin (January, 1970) Madison, Ohio
Colin Kelly Batten (August, 1969) Lucama
Walter Franklin Conleton (January, 1970) Stokes

Alyan Donnan, Jr. (August, 1969) Hockessin, Del.
 Hugo Jose Vale Huerta (August, 1969) Maracaibo, Venezuela
 Aaron Waddington Welch, Jr. (January, 1970) Raleigh
 Henry Shi-Lih Yang (January, 1970) Hong Kong

Psychology

John Sanford Baird, Jr. (January, 1970) Warwick, N. Y.
 John Roquemore Floyd, Jr. (January, 1970) Raleigh
 David Harry Friedman (January, 1970) Houston, Texas
 Mary Brown Kilburn (August, 1969) Raleigh
 Lily White Oatfield (January, 1970) Cary
 Thomas Clayton Tuttle (January, 1970) Raleigh
 Karen Rogness Wilkinson (January, 1970) Minneapolis, Minn.
 Jerry Lee Wright (July, 1969) Bremen, Ga.

Science Education

Thurston Earl Hughes (July, 1969) Ash
 James Rondal Hunter (January, 1970) Libertyville, Ill.

Soil Science

John Stephen Barnes (January, 1970) Plymouth
 Clyde Ray Bogle, Sr. (January, 1970) Salisbury
 Stephen White Broome (August, 1969) Aurora
 Siavash Ghobadi (January, 1970) Mazandaran, Iran
 Vasilios Apostolos Mylonas (January, 1970) Larissa, Greece
 Juan Miguel Zapater (January, 1970) Lima, Peru

Textile Chemistry

Fred Mark Allred, Jr. (July, 1969) Burlington

Textile Technology

Billy Arnold Knight (August, 1969) Henderson
 Joe Thomas Koontz (July, 1969) Salisbury

Vocational Industrial Education

John Frink Freeman, Jr. (January, 1970) Bladenboro
 Frank Arnett Gourley, Jr. (January, 1970) Penhook, Va.
 Garland Kermitt Hilliard, Jr. (July, 1969) Raleigh

Wildlife Biology

Hugh Martin Fields (August, 1969) Raleigh

Wood and Paper Science

James Stanley Hedgecock (July, 1969) High Point
 Curtis Wayne Honeycutt (January, 1970) Bessemer City
 Thomas Wayne Myers (January, 1970) High Point

Zoology

Barbara Jeckel Ailor (August, 1969) Oxon Hill, Md.
 William Robeson Allen, III (August, 1969) Wilmington
 Daniel Holton Benfield (January, 1970) High Point
 William Cullen Grant (August, 1969) Mullins, S. C.
 John Cardon Meshaw, Jr. (August, 1969) Wilmington
 Carole Lucy Scheult (January, 1970) London, England
 Don Walton Stephenson (January, 1970) Four Oaks
 David William Turner (January, 1970) Quincy, Ill.

Doctor of Education Degrees

- Chester Dunlap Black, Adult Education, August, 1969
Memphis, Missouri
- Dissertation: Professional Leadership Behavior: Its Effects and Associated Factors. (Under the direction of Dewey Allen Adams and Edgar John Boone).
- Virgil Milton Boyce, Adult Education, January, 1970
Lewisburg, West Virginia
- Dissertation: The Effect of Adult Basic Education on Selected Noncognitive Attributes. (Under the direction of John Kincaid Coster and Robert John Dolan).
- Lewis Conrad Forrest, Jr., Occupational Education, January, 1970
Newport, North Carolina
- Dissertation: An Analysis of Variables Related to the Morale of Teachers in North Carolina with Special Emphasis on Vocational Teachers. (Under the direction of Clarence Cayce Scarborough).
- Ralph Arnold Greene, Adult Education, January, 1970
Marion, North Carolina
- Dissertation: The Relationship Between Selected Stratification-Differentiation Variables and Source of Information Used for Consumer Decision-making by Adult Learners at Central Piedmont Community College. (Under the direction of Dewey Allen Adams and Robert John Dolan).
- Robert Bruce Lewis, Adult Education, August, 1969
Harpster, Ohio
- Dissertation: A Study of Selected Factors Associated with Participation Orientation toward Education and Job Training among Adults Residing in Low Socioeconomic Communities of North Carolina. (Under the direction of James Dalton George).
- Dan Barry Lumsden, Adult Education, January, 1970
Durham, North Carolina
- Dissertation: A Study of Selected Socio-economic Characteristics of Adults in Educational Activities in Columbus County, North Carolina, Compared with Selected Socio-economic Characteristics of the Total Population of the County. (Under the direction of Edgar John Boone).
- Jack Thomas McCown, Adult Education, August, 1969
Gainesville, Florida
- Dissertation: The Florida Legislators' Perception of the Florida Agricultural Extension Service. (Under the direction of Emily H. Quinn).
- Mary Elizabeth Milliken, Vocational Industrial Education, August, 1969
Raleigh, North Carolina
- Dissertation: Some Dimensions of Student Satisfaction and Dissatisfaction. (Under the direction of Durwin Melford Hanson).
- John Lisker Tart, Agricultural Education, July, 1969
Goldsboro, North Carolina
- Dissertation: An Analysis of the Relationships in Adult Education in Agriculture between the Community Colleges and Secondary Schools in North Carolina. (Under the direction of Clarence Cayce Scarborough).

Louis Edward White, Adult Education, January, 1970
Iber, Alabama

- Dissertation: A Study of Alabama Legislators' Perception of the Auburn University Cooperative Extension Service. (Under the direction of Dewey Allen Adams).

Doctor of Philosophy Degrees

James Ashley Aberson, Jr., Civil Engineering, August, 1969
Smyrna, Georgia

- Dissertation: Results for a Proposed Body Centered Cubic Crystal Lattice Model. (Under the direction of John Frederick Ely).

William Thomas Ahlschwede, Animal Science, January, 1970
Crete, Nebraska

- Dissertation: Maternal Effects in Swine Genetic and Environmental Relationships. (Under the direction of Odis Wayne Robison).

Gerassimos Spiridon Anagnostatos, Nuclear Engineering, August, 1969
Athens, Greece

- Dissertation: An Isomorphic Model of the Closed-shell Nuclei. (Under the direction of Jae Young Park).

Ronald John Ashworth, Crop Science, August, 1969
Bristol, England

- Dissertation: The Uptake, Translocation, and Metabolism of Carbofuran in Tobacco Plants. (Under the direction of Thomas Jackson Sheets).

Anooshiravan Askari, Civil Engineering, August, 1969
Tehran, Iran

- Dissertation: Discrete Field Analysis of Regular Three Dimensional Structural Frames. (Under the direction of Donald L. Dean).

Charles Gilmore Atkins, Genetics, August, 1969
Clio, Michigan

- Dissertation: A Transductional and Biochemical Analysis of *Salmonella typhimurium* x *Salmonella montevideo* Hybrids. (Under the direction of Frank Bradley Armstrong).

Raymond Richard Avent, Jr., Civil Engineering, January, 1970
Newport News, Virginia

- Dissertation: Field Analysis of Ribbed Cylindrical Shells. (Under the direction of Donald Lee Dean).

Walter Clark Biggs, Jr., Zoology, August, 1969
Wilmington, North Carolina

- Dissertation: Suckling Behavior of Domestic Swine in Farrowing-Barn and Penned-Woods Environments. (Under the direction of Thomas Lavelle Quay).

John Anthony Blaisdell, Mechanical Engineering, July, 1969
Corymans, New York

- Dissertation: A Finite-Difference Solution of the Viscous Compressible Laminar Flow Through Axisymmetric Channels. (Under the direction of James Clifford Williams, III).

- Henry Wayland Blake, Engineering Mechanics, January, 1970
Winston-Salem, North Carolina
- Dissertation: General Optical Diffraction-Strain Relations. (Under the direction of Dr. Robert Alden Douglas and Dr. Hans Heinrich Stadelmaier).
- Burrie Van Dyk Boshoff, Biological and Agricultural Engineering, January, 1970
Pretoria, South Africa
- Dissertation: Automatic Depth Control for Seed Planter Based on Soil Conductance Sensing. (Under the direction of Henry Dittimus Bowen).
- Charles Leslie Britt, Jr. Electrical Engineering, January, 1970
Durham, North Carolina
- Dissertation: An Evaluation of Aircraft Collision-Hazard Warning Radar Techniques in the Terminal Area. (Under the direction of Walter A. Flood).
- Stephen Hunt Brown, Applied Mathematics, August, 1969
Goldsboro, North Carolina
- Dissertation: On Rationally Complete Modules. (Under the direction of Kwangil Koh).
- John Alan Brushaber, Plant Pathology, January, 1970
Springdale, Arkansas
- Dissertation: Cytological Studies on *Poria monticola*. (Under the direction of Samuel Forest Jenkins, Jr.).
- Clara Ray Bunn, Microbiology, August, 1969
Raleigh, North Carolina
- Dissertation: Lipids of Certain Biotin Sensitive Strains of *Rhizobium japonicum*. (Under the direction of Gerald Hugh Elkan).
- William Harold Burgess, Jr., Chemical Engineering, January, 1970
Aiken, South Carolina
- Dissertation: Transport of Noble Gases in Poly (methyl acrylate). (Under the direction of Vivian Thomas Stannett and Harold Bruce Hopfenberg).
- Carl Rosser Camp, Jr., Biological & Agricultural Engineering, August, 1969
Centre, Alabama
- Dissertation: The Development of an Extended-Range Tensiometer for Use in Closed Soil Systems. (Under the direction of Henry Dittimus Bowen).
- Gordon Glenn Campbell, Wood and Paper Science, January, 1970
Park Forest, Illinois
- Dissertation: The Effect of Weathering on the Adhesion of Selected Exterior Coatings to Wood. (Under the direction of Alfred Joaquin Stamm).
- Edward John Carpenter, Zoology, January, 1970
Fredonia, New York
- Dissertation: Effects of Phosphorus Mining Wastes on Microorganisms of the Pamlico River Estuary, North Carolina. (Under the direction of John Eyres Hobbie).
- Cheng-sheng Chang, Biological and Agricultural Engineering, January, 1970
Changhau, Taiwan
- Dissertation: Analysis of Transient Temperature Response of Foliar Material under High Temperature Convective Drying on the Basis of Heat Transfer Theory. (Under the direction of William Hugh Johnson).

- Lung-Hua Chen, Biological & Agricultural Engineering, August, 1969
Hsin-chu, Taiwan, Republic of China
Dissertation: Modeling Growth Behavior of Small Tobacco Plants. (Under the direction of William Eldon Splinter and William Hugh Johnson).
- Ting Shu Chen, Engineering Mechanics, January, 1970
Kaohsiung, Taiwan
Dissertation: Axiomatic Formulation of a Mixture Theory for Reacting Fluids. (Under the direction of Tien Sun Chang).
- Sung Hwan Cho, Mechanical Engineering, August, 1969
Seoul, Korea
Dissertation: Heat Conduction with Phase Changes. (Under the direction of James Edward Sunderland).
- George Konstantinos Christou, Economics, January, 1970
Panagia-Thivai, Greece
Dissertation: Tariff Structure and Effective Protection: The Case of Greek Manufacturing Industries. (Under the direction of Bernard Martin Olsen).
- Norvin Aaron Clontz, Chemical Engineering, January, 1970
Glen Alpine, North Carolina
Dissertation: The Effects of a Solute Seed Crystal and Crystal-Solid Contacts on Nucleation in a Flowing Supersaturated Magnesium Sulfate Heptahydrate Solution. (Under the direction of Warren Lee McCabe).
- Roy Edward Dahl, Jr., Nuclear Engineering, January, 1970
Richland, Washington
Dissertation: A Computer Simulation Study of Tilt Grain Boundaries in Gamma-Iron and Their Interactions with Point Defects. (Under the direction of Joe Robert Beeler, Jr.).
- Zoel Wayne Daughtrey, Soil Science, January, 1970
Paris, Texas
Dissertation: Characteristics of Soil Phosphorus Supply of Organic Soils in the Tidewater Region of North Carolina. (Under the direction of Eugene John Kamprath and James Wendell Gilliam).
- Bob Davis, Economics, January, 1970
Rockdale, Texas
Dissertation: An Economic Analysis of Labor Use for Alternative Flue-Cured Tobacco Harvesting and Curing Systems. (Under the direction of Loren Albert Ihnen).
- Albertus Gerhardus De Beer, Biological and Agricultural Engineering, January, 1970
Pretoria, South Africa
Dissertation: High Temperature Discoloration Phenomena of Foliar Materials. (Under the direction of William Hugh Johnson).
- Halit Zafer Dokuzoguz, Chemistry, July, 1969
Ankara, Turkey
Dissertation: Sn^{119} and Sb^{121} Mossbauer Effect in Some Alloys and Intermetallic Compounds. (Under the direction of Lawrence Hoffman Bowen).

- Richard Haines Dougherty, Food Science, January, 1970
Taneytown, Maryland
- Dissertation: Characterization and Localization of Thiamine in Cotyledons of the Peanut (*Arachis hypogaea*). (Under the direction of William Younts Cobb).
- Golam Ali Fakir, Plant Pathology, August, 1969
Khulna, East Pakistan
- Dissertation: Relative Prevalence and Pathogenicity of Fungi Associated with Achenes of Sycamore in the Field and in Storage. (Under the direction of Ellis Brevier Cowling and Ronald Earle Welty).
- Berkwood Malcolm Farmer, Economics, January, 1970
Ringgold, Virginia
- Dissertation: Man-Hour Productivity and Future U. S. Agricultural Adjustment. (Under the direction of George Stanford Tolley and Dale Max Hoover).
- Wilbur Bryan Fichter, Engineering Mechanics, August, 1969
Newport News, Virginia
- Dissertation: Stress Concentrations in Filament-Stiffened Sheets. (Under the direction of Edward Dewitt Gurley).
- Walter Lee Fishel, Economics, January, 1970
West Lafayette, Indiana
- Dissertation: Uncertainty in Public Research Administration and Scientists' Subjective Probability Estimates about Changing the State of Knowledge. (Under the direction of Dale Max Hoover).
- Raymond Earl Fornes, Physics, January, 1970
Greenville, North Carolina
- Dissertation: Nuclear Magnetic Resonance Lineshape Studies of Dipolar Broadened Spin Systems. (Under the direction of Jasper D. Memory).
- Edward Demah Graham, Jr., Electrical Engineering, January, 1970
Winston-Salem North Carolina
- Dissertation: Computer Techniques for Accurate Solid State Device Analysis. (Under the direction of John Reid Hauser).
- Charles Harry Goldsmith, Experimental Statistics, July, 1969
Flin Flon, Manitoba, Canada
- Dissertation: Three-Stage Nested Design for Estimating Variance Components. (Under the direction of David William Gaylor).
- Noshir Behram Havewala, Chemical Engineering, July, 1969
Raleigh, North Carolina
- Dissertation: Gamma Radiation Induced Emulsion Polymerization of Styrene in a Recirculating Flow Reactor System. (Under the direction of Edward Paul Stahel).
- Ronald William Helms, Experimental Statistics, August, 1969
Oak Ridge, Tennessee
- Dissertation: A Procedure for the Selection of Terms and Estimation of Coefficients in a Response Surface Model with Integration-Orthogonal Terms. (Under the direction of Robert John Hader and Allison Ray Manson).

- Bob Gene Hill, Entomology, January, 1970
Shawnee, Oklahoma
- Dissertation: Comparative Morphological Study of Selected Higher Categories of Leafhoppers (Homoptera: Cicadellidae). (Under the direction of David Allan Young).
- Thomas Lynn Honeycutt, Biological & Agricultural Engineering, August, 1969
High Point, North Carolina
- Dissertation: A Model for Selecting the Optimum Number, Size, and Location of Processing Plants. (Under the direction of David Alan Link).
- George Walter Hoyle, Electrical Engineering, January, 1970
Newton, North Carolina
- Dissertation: Electrical Conduction Across a Thin-Film Au-CdS Interface. (Under the direction of Neely Forsyth Jones Matthews).
- Michael O'Leary Hunt, Wood and Paper Science, January, 1970
West Lafayette, Indiana
- Dissertation: The Prediction of the Elastic Constants of Particleboard by Means of a Structural Analogy. (Under the direction of Eric L. Ellwood and Stanley K. Suddarth).
- Frederick Louis Johns, Zoology, January, 1970
Raleigh, North Carolina
- Dissertation: Habitat Exploitation by Four Species of Sparrows in Ecotones in Winter. (Under the direction of Thomas Lavelle Quay).
- Homer Ray Johnson, Chemical Engineering, January, 1970
Dunn, North Carolina
- Dissertation: Heat Transfer in the Evaporator Zone of a Heat Pipe. (Under the direction of James K. Ferrell).
- Mark Allyn Johnson, Experimental Statistics, January, 1970
Dunn, North Carolina
- Dissertation: On the Kiefer-Wolfowitz Process and Some of Its Modifications. (Under the direction of James E. Grizzle).
- Bernard Britt Keele, Jr., Microbiology, July, 1969
Huntsville, Alabama
- Dissertation: Glucose and Gluconic Acid Catabolism in *Rhizobium japonicum*. (Under the direction of Gerald Hugh Elkan).
- Walter Jackson Lackey, Jr. Materials Engineering, January, 1970
Falston, North Carolina
- Dissertation: Electronic and Ionic Conductivity in Alumina. (Under the direction of Robert Franklin Stoops).
- Ernest Linwood Lawton, Chemistry, August, 1969
Raleigh, North Carolina
- Dissertation: Part One. Photodifluoramination of Alkanes. Part Two. Hydride Reduction N-Benzylidenecloalkylamines. (Under the direction of Carl L. Bumgardner).
- Charles Edward Lewis, Jr., Rural Sociology, January, 1970
Wilmington, North Carolina
- Dissertation: School Integration and Occupational Expectations: A Study of North Carolina High School Senior Boys. (Under the direction of Charles Venable Mercer and Selz Cabot Mayo).

- William Frank Lott, Economics, August, 1969
South Montrose, Pennsylvania
- Dissertation: The Effect of Demographic Characteristics and the Interest Rate on the Consumption Function of an Economy Over Time. (Under the direction of Thomas Dudley Wallace).
- Leon Curtis McBride, Biomathematics, August, 1969
Rupert, Idaho
- Dissertation: A Study of the Distribution Pattern of the Incorporation of Radio-iron Into Rat Liver Ferritin. (Under the direction of H. L. Lucas, Jr. and Melvin W. Carter).
- Richard Anthony McCorkle, Physics, January, 1970
Cherryville, North Carolina
- Dissertation: Characteristics of Beam-Generated Systems. (Under the direction of Willard Harrison Bennett).
- John William McCulloch, Mechanical Engineering, July, 1969
Greensboro, North Carolina
- Dissertation: Radiation Heat Transfer during Sublimation Dying. (Under the direction of James Edward Sunderland).
- Kenneth Grimes McDaniel, Chemistry, August, 1969
Lexington, North Carolina
- Dissertation: I. The Photolysis of Tetrafluorohydrazine with Olefins. II. Haller-Bauer Cleavage of Cyclopropyl Phenyl Ketones. (Under the direction of Carl L. Bumgardner).
- Ralph Norman McGill, Mechanical Engineering, August, 1969
Charlotte, North Carolina
- Dissertation: Theoretical Investigation of Some Mass Transfer Problems with Chemical Reaction. (Under the direction of Mehmet Necati Ozisik).
- James Donald McKinney, Psychology, August, 1969
Raleigh, North Carolina
- Dissertation: A Developmental Study of the Acquisition and Utilization of Conceptual Strategies. Under the direction of Harold M. Corter).
- William Stephen McNamara, Wood & Paper Science, August, 1969
Amherst, Massachusetts
- Dissertation: Effects of Stress on the Diffusion of Moisture in Wood. (Under the direction of Clarence Arthur Hart).
- Luther Daniel Mears, Nuclear Engineering, January, 1970
Rocky Mount, North Carolina
- Dissertation: Xenon Diffusion in Single Crystals of Alkali Metal Iodides. (Under the Direction of Thomas Smith Elleman).
- Scott Edward Michaels, Experimental Statistics, August, 1969
Memphis, Tennessee
- Dissertation: Optimization of Testing and Estimation Procedures for a Quadratic Regression Model. (Under the direction of Robert John Hader).
- Subhas Chandra Mohapatra, Botany, January, 1970
Cuttack, Orissa, India
- Dissertation: Effect of Curing Time and Temperature on the Metabolism of Lipids and Ethanol Soluble Compounds in Peanuts. (Under the direction of Harold Edward Pattee).

- William Stark Mohn, Jr., Electrical Engineering, July, 1969
Raleigh, North Carolina
- Dissertation: Statistical Feature Evaluation in Speaker Identification. (Under the direction of John B. O'Neal, Jr. and Norman R. Bell).
- Vivian Jones Moore, Animal Science, January, 1970
High Shoals, Georgia
- Dissertation: Copper Deficiency Anemia in Chickens. (Under the direction of Charles Horace Hill).
- James Paul Olson, Civil Engineering, July, 1969
Quincy, Massachusetts
- Dissertation: Volume Change-Pore Pressure Relations for Saturated Cohesive Soils. (Under the direction of Harvey Edward Wahls).
- John LeRoy Parker, Jr., Mechanical Engineering, January, 1970
Rocky Mount, North Carolina
- Dissertation: A Time-Dependent Computation Method for Flows about Blunt Bodies with Discontinuous Curvatures. (Under the direction of Hassa Ahmad Hassan).
- James Erving Paul, Jr., Electrical Engineering, January, 1970
New Bern, North Carolina
- Dissertation: A Limited-Vocabulary, Multi-Speaker Automatic Isolated Word Recognition System. (Under the direction of Alfred John Goetze and John Benjamin O'Neal, Jr.).
- John Luther Prince, Electrical Engineering, August, 1969
Dallas, Texas
- Dissertation: A Study of the Depletion Region Carrier Generation Rate Due to Gold Impurities in Silicon Under Anisotropic Stress. (Under the direction of Larry King Monteith and John Reid Hauser).
- John Roberto Proni, Physics, January, 1970
Miami, Florida
- Dissertation: Electron and Ion Signal Propagation in a Quiescent Plasma. (Under the direction of Willard Harrison Bennett).
- Rachel Fulton Rawls, Psychology, January, 1970
Raleigh, North Carolina
- Dissertation: Training for Increased Comprehension with Accelerated Word Rates in Auditory Reading Media (Compressed Speech). (Under the direction of Harold Maxwell Corter).
- William Harold Ridings, II, Plant Pathology, August, 1969
Raleigh, North Carolina
- Dissertation: Epidemiology and Control of Grape Bitter Rot Caused by *Melanconium fuligineum*. (Under the direction of Carlyle Newton Clayton).
- Patrick Thomas Rigney, Chemical Engineering, August, 1969
Dublin, Ireland
- Dissertation: Preparation and Properties of Grafted Membranes for Desalination by Reverse Osmosis. (Under the direction of Vivian Thomas Stannett and Harold Bruce Hopfenberg).

- Eugene Wallace Rochester, Jr., Biological and Agricultural Engineering, January, 1970
Greenville, South Carolina
- Dissertation: Potable Water Availability on Long Oceanic Islands. (Under the direction of George James Kriz).
- Milton Charles Rush, Plant Pathology, January, 1970.
Goodyear, Arizona
- Dissertation: Epidemiology of Tobacco Ringspot in North Carolina. (Under the direction of Guy Vernon Gooding, Jr.).
- Tarit Kumar Sarkar, Biological and Agricultural Engineering, July, 1969
Dhulauri, Murshidabad, W. Bengal, India
- Dissertation: Moisture and Energy Distribution Within a Sloping Soil Mass Due to a Finite Duration of Steady Rainfall. (Under the direction of Edward Hempstead Wiser).
- Lorain Medbury Schultes, Microbiology, August, 1969
Mount Upton, New York
- Dissertation: Deoxyribonucleic Acid Homologies Among Aerococci and Related Bacteria. (Under the direction of James Brainerd Evans and Frank Bradley Armstrong).
- Otto John Schwarz, Plant Physiology, January, 1970
Fort Myers, Florida
- Dissertation: Aspects of Pyrimidine Nucleoside and Deoxynucleoside Phosphorylation in Germinating Peanuts. (Under the direction of Roger Carl Fites).
- Alice Smith Scott, Food Science, January, 1970
Pink Hill, North Carolina
- Dissertation: The Influence of Ovarian Hormones on Blood Serum Fatty Acids. (Under the direction of Leonard William Aurand).
- Allan Henry Seheult, Experimental Statistics, January, 1970
London, England
- Dissertation: On Unbiased Estimation of Density Functions. (Under the direction of Charles Price Quesenberry).
- Roland William Seibert, Botany, August, 1969
Lansing, Illinois
- Dissertation: Flowering Patterns, Germination, and Seed and Seedling Development of *Juncus roemerianus*. (Under the direction of Charles Eugene Anderson).
- Arunchandra Hiralal Shah, Entomology, January, 1970
Broach, India
- Dissertation: Penetration and Metabolism of Insecticides Through the Isolated Midgut of Insects and Mammals. (Under the direction of Frank Edwin Guthrie).
- David Alexander Sharp, Nuclear Engineering, January, 1970
Sevierville, Tennessee
- Dissertation: Semi-Empirical Representations of Neutron and Gamma Ray Dose Rates in Two-Layered Slab Shields. (Under the direction of Albert Carnesale and Raymond Leroy Murray).

- Ron-sen Shen, Food Science, January, 1970
Hsin-chu Hsien, Taiwan
- Dissertation: Influence of Estrus, Estrogen, and Progesterone on the Activity of Milk Xanthine Oxidase, the Composition of Milk, and the development of Oxidized Flavor in Milk. (Under the direction of Leonard William Aurand).
- Jacob Albert Sherk, Jr., Zoology, July, 1969
Suitland, Maryland
- Dissertation: Effects of Low Levels of Phosphate Mining Effluent on Periphyton in Controlled, Artificial Estuaries. (Under the direction of John Eyles Hobbie).
- Ghazi Ahmad Sirhan, Economics, August, 1969
Beirut, Lebanon
- Dissertation: An Elasticity of Substitution and a Market Share Approach to the British and German Import Demand for United States Cotton. (Under the direction of Paul R. Johnson).
- Pablo Enrique Soto, Entomology, January, 1970
Gainesville, Florida
- Dissertation: Relationship of Larval and Adult Food to the Reproductive Process of the Tobacco Hornworm, *Manduca sexta* (Johan.), and the Tomato Hornworm, *Manduca quinquemaculata* (Haw.). (Under the direction of Robert Takaichi Yamamoto.)
- Harold Junior Teague, Chemistry, January, 1970
Fayetteville, North Carolina
- Dissertation: I. Thiapyrone Chemistry. The Reaction of 2,6-Dimethylthio-3, 5-diphenylthiapyrone with Hydroxide Ion. II. Attempted Preparation of Naphthalene A/B Campthoecin. (Under the direction of William Preston Tucker).
- Gordon Wallace Thayer, Zoology, August, 1969
Morehead City, North Carolina
- Dissertation: Phytoplankton Production and Factors Influencing Production in the Shallow Estuaries Near Beaufort, North Carolina. (Under the direction of Richard Birge Williams).
- Maurice Cornelius Todd, Engineering Mechanics, July, 1969
East Bend, North Carolina
- Dissertation: Analysis of Truss Reinforced Plates by Discrete Field Theory. (Under the direction of John Frederick Ely).
- Helio Tollini, Economics, August, 1969
Sao Vicente—Estado de Sao Paulo, Brazil
- Dissertation: Actual and Optimal Use of Fertilizer. (Under the direction of James Arthur Seagraves).
- Jack Wellington VanStavern, Animal Science, January, 1970
Pickaway, West Virginia
- Dissertation: The Relationship between Voluntary Feed Intake and Certain Measures of Performance and Carcass Traits in Immature Beef Cattle. (Under the direction of Elliott Roy Barrick).
- Charles Edwin Vaughan, Crop Science, August, 1969
Starkville, Mississippi
- Dissertation: Tetrazolium Evaluation of the Nature and Progress of Deterioration of Peanut (*Arachis hypogaea* L.) Seed in Storage. (Under the direction of Robert Parker Moore).

- James Robie Vestal, Microbiology, August, 1969
Winter Park, Florida
- Dissertation: The Metabolism of Propane, Propionate and Related Substrates by a Soil Bacterium. (Under the direction of Jerome John Perry).
- Willy Lucio Villena, Crop Science, August, 1969
Potosí, Bolivia
- Dissertation: Studies of Inoculation Methods and Inheritance of Resistance to *Diplodia* Ear Rot in Corn. (Under the direction of Donald Loraine Thompson).
- Donald Chester Weber, Biomathematics, January, 1970
Oxford, Ohio
- Dissertation: A Stochastic Model for Automobile Accident Experience. (Under the direction of Henry Laurence Lucas, Jr.).
- Charles Milton Williams, Psychology, January, 1970
Reading, Pennsylvania
- Dissertation: An Investigation of the Stimulus Variables Specifying Surface Quality, (Under the direction of Robert E. Lubow).
- Richard Planck Williams, Electrical Engineering, January, 1970
Fayetteville, North Carolina
- Dissertation: One Dimensional Electrical Conduction Under the Influence of Acoustic and Optical Phonon Scattering. (Under the direction of Neely Forsyth Jones Matthews).
- Norman Francis Williamson, Jr., Applied Mathematics, January, 1970
Raleigh, North Carolina
- Dissertation: Some Topics in System Theory. (Under the direction of Hubertus Robert Van Der Vaart).
- Nancy Phillips Willis, Entomology, August, 1969
Roanoke Rapids, North Carolina
- Dissertation: Choline Distribution and Metabolism in Insects. (Under the direction of Ernest Hodgson).
- John Roland Yow, Mechanical Engineering, January, 1970
Seagrove, North Carolina
- Dissertation: Behavior of the Elastic Entrance Region in Cold Strip Rolling. (Under the direction of Carl Frank Zorowski).

Awards For Achievement

1969-1970

SCHOOL OF AGRICULTURE AND LIFE SCIENCES

Agricultural Council Outstanding Club Member Awards:

Agronomy: Willard Oscar Jackson, Henderson
Horticulture: Robert Daniel Lineberger, Dallas
Wildlife Biology: Gilbert Grant, Sneads Ferry
Agricultural Engineering: Henry Mitchell Callahan, Vass
Agricultural Economics: Frank Waters, Pinetown
Agricultural Institute: A. Frank Macon, Seagrove
Animal Science: Chester Lowder, Norwood
Poultry Science: Harold Boyd Price, Raleigh
Pre-Veterinary: Robert Hugh Osborne, Hickory
Life Science Club: Karen Crane, Gastonia

Agricultural Economics:

Wall Street Journal Achievement Award: Timothy Bowles, Hiddenite

Agronomy:

Senior Highest Scholastic Average in Agronomy: Carl Wells Hall, III, Mt. Ulla (Agronomy)
American Society of Agronomy Award, Most Outstanding Senior: Carl Wells Hall, III, Mt. Ulla (Agronomy)
Agronomy Club Leadership Award: Stanley Oliver, Jr., Creswell (Agronomy)

Animal Science:

American Society of Animal Science Senior Scholarship Award: John M. Martin, Wadesboro

Biological and Agricultural Engineering:

American Society of Agricultural Engineers, Student Honor Award: Ronald Leecil Marlow, Statesville
Senior Honor Award in Biological and Agricultural Engineering-Technology Program: Henry Mitchell Callahan, Vass

Food Science:

Virginia Dare Award: Stanley Guy Herndon, Apex
Ambrosia Chocolate Award: Timothy Alan Peppe, Clarksville, Tennessee

Gamma Sigma Delta:

Senior Certificate: John Douglas Schroer, Fayetteville (Wildlife Biology)

Horticultural Science:

Burpee Award: Robert Daniel Lineberger, Dallas
Outstanding Senior Award: Christy Ford Elkins, Greensboro
Joseph B. Edmond Student Award: Christy Ford Elkins, Greensboro

Pre-Veterinary:

Outstanding Student: Ross Moore, Charlotte

Zoology:

Most Outstanding Student: John Douglas Schroer, Fayetteville

SCHOOL OF DESIGN

North Carolina Section of the Southeastern Chapter of the American Society of Landscape Architects Book Award: Nicholas Paul Young, Dania, Florida

The American Society of Landscape Architects Certificate of Merit: Curtis Franklin Baggett, Knoxville, Tennessee; James Brian LeVine, Honolulu, Hawaii

The Alcoa Book Award: Ronald Dean Cauble, Kannapolis

The Industrial Designers Society of America Certificate of Merit: Lynn Wilson Abernethy, Statesville; Michael David Doty, Shelby

The American Institute of Architects School Medal: John Llewellyn Hitch, Raleigh

The American Institute of Architects Certificate: Dixon Boyce Hanna, Gastonia

Alpha Rho Chi Medal: Douglas Marshall Bennett, Roanoke, Virginia

North Carolina Chapter of The American Institute of Architects Book Award: John Frank Thompson, Durham

Walter Hook Book Award: John Franklin Sinnett, Newton

SCHOOL OF EDUCATION

Education Council Plaque, most outstanding student enrolled in: Agricultural Education, James Ray Mabe, Jr., Madison; Industrial and Technical Education, Linwood Leon Hawkins, Greensboro; Mathematics and Science Education, Mrs. Patricia Jenkins Jones, Belmont

Agricultural Education Club Award: most outstanding senior graduating at end of fall semester, John Thomas Butler, Windsor, Virginia; graduating at end of spring semester, Roger Benton Davis, Mount Olive; most outstanding senior for the school year, James Ray Mabe, Jr., Madison

Education Council Achievement Award: Agricultural Education, Roger Benton Davis, Mount Olive, and Maurice Irvin McAlister, Reidsville; Industrial Arts, Harold Walter Haun, Raleigh; Technical Education, James Monroe Law, Raleigh; Vocational Industrial Education, Rebecca Evans Swanger, Durham; Mathematics and Science Education, James Harvey Hoffman, Jumping Branch, West Virginia, and Annie Isabel Lee, Washington

Kappa Phi Kappa Scholarship Medal: Harold Walter Haun, Raleigh

SCHOOL OF ENGINEERING

Dean's Leadership Award: John V. Barker, III, Raleigh (Senior, Civil Engineering)

The Hamilton Watch Award: Keith Dunston Hackney, Washington (Senior, Industrial Engineering)

The Outstanding Engineering Senior Award: George Ray Ritchie, Raleigh (Senior, Electrical Engineering)

The Outstanding Engineering Citizen Award: James Archibald McQueen, Jr., Raleigh (Senior, Aerospace Engineering)

Biological and Agricultural Engineering: American Society of Agricultural Engineers Outstanding Senior Award: Ronald Leecil Marlow, Statesville

Chemical Engineering: Institute of Chemical Engineers Outstanding Senior Award: Roger Dale Towe, Candler

Civil Engineering: American Society of Civil Engineers Award to Outstanding Seniors: Bobby David Barnes, Elm City; Merritt Edney Blalock, III, Raleigh; Carlton Sumner Harrell, Jr., Burgaw; John Ronda Lewis, Jr., Old Fort; Associated General Contractors Award to Outstanding Senior in Civil Engineering Construction Option: Robert Craig Pantel, South Fallsburg, New York; North Carolina Chapter of American Public Works Association Award to Outstanding Seniors in Civil Engineering: Thomas Edward Underwood, Charlotte; Ronald Ernest Punch, Conover

Electrical Engineering: Outstanding Senior Awards: George Ray Ritchie, Raleigh; Alice Anne Cline, Raleigh
Engineering Mechanics: Comma-Dot-Eye Award: E. Brent Sigmon, Conover
Engineering Operations: Outstanding Senior Award: Robert L. Rhew, Durham;
 Industrial Achievement Award: Fred J. Ferguson, Cary
Furniture Manufacturing and Management: Outstanding Senior Award: Alan Lee Dietz, Hickory
Industrial Engineering: Outstanding Senior Award: Robert A. Lauridsen, Marion;
 Outstanding Sophomore Award: John T. Foster, Jr., Greensboro
Materials Engineering: Outstanding Senior Award: Larry A. Weeks, Clinton;
 J. C. Steel Ceramic Engineering Scholarship Cup: William E. Cook, New Bern
Mechanical and Aerospace Engineering: American Institute of Aeronautics and Astronautics Outstanding Achievement Award: William Henry Worsley, Greenville; American Institute of Aeronautics and Astronautics Chairman's Certificate: David Wilson Shuford, Hickory; American Society of Mechanical Engineers' Certificate Award: James David Mobley, Winterville
Nuclear Engineering: Outstanding Senior Award: Robert Alan Fjeld, Raleigh

SCHOOL OF FOREST RESOURCES

Xi Sigma Pi Senior Award: Raymond Riley Haynie, Fort Lauderdale, Florida
Xi Sigma Pi Freshman Award: Robert Deal James, Jr., Raleigh
Biltmore Scholarship Awards: John Calvin Baker, Jr., Wintessor; Mike Dale Everette, Fuquay-Varina; Samuel Comer Long, Severn; David Leigh Smith, Greensboro
Conger Scholarship Awards: Dennis Bryan Hearn, Laurinburg; James Thomas Morgan, Corapeake; John Edward Townsend, Arvada, Colorado
Continental Can Competitive Scholarship Award: George Daniel Shankle, Jr., Polkton
Crown Zellerbach Scholarship Awards: Clarence Allen Dykes, Savannah, Georgia; Waldron C. Suggs, Whiteville
Homelite Honor Award: Jerry Ronald Sprague, High Point
Paper Industry Management Association Awards: (Southern Division) Ray E. Harrison, Smith, Arkansas; (Southeastern Division) William R. Snellings, Augusta, Georgia
Rho Phi Alpha Award: Patricia Hart Gerwig, Apex
Weyerhaeuser Fellowship Awards: Charles Delbert Holder, Wilmington; Stephen R. Webster, Rochester, Washington

SCHOOL OF LIBERAL ARTS

The Liberal Arts Council Award for Academic Excellence: James M. Norris, Pope AFB (Senior, Economics)
The B. F. Brown Award for Excellence in Liberal Arts: John Everett Kushman, Cary (Senior, Economics)

SCHOOL OF PHYSICAL SCIENCES AND APPLIED MATHEMATICS

The Chemical Rubber Company Award for Outstanding Achievement in Freshman Chemistry: Broadus Monroe Beeson, High Point
The Merck Index Award for Scholastic Achievement in Chemistry: Charles Christian Goodno, Raleigh
The John Bewley Derieux Award for the Outstanding Paper in Physical Sciences contributed to the Collegiate Academy of the North Carolina Academy of Science: Robert Lawrence Greene, Wilson

Merck Awards for Outstanding Performance as Graduate Teaching Assistants in Chemistry: William H. Bordeaux, Jr., Grand Blanc, Michigan; Walter Cary Eaton, Camden, South Carolina; Rodrigo Fernandez, Jr., Miami, Florida; Rodger N. Jenkins, Manquin, Virginia; Robert Donald Wauchope, Brevard; Clifton Woods, III, Charlotte

Award for Outstanding Senior in the Department of Mathematics: Albert Victor Hardy, Jr., Raleigh

Award for Outstanding Junior in the Department of Mathematics: Benjamin Clay Burch, Grifton

Award for Outstanding Sophomore in the Department of Mathematics: Mrs. Sandra Rosen Bright, Raleigh

SCHOOL OF TEXTILES

American Association of Textile Chemists and Colorists Award: Steve M. Hinson, Concord

American Association for Textile Technology Award: Ross W. Nash, Charlotte
Harry Ball Award: Tony M. Leonard, Grifton

Delta Kappa Phi Fraternity Award: Clay V. Richardson, Star

Saul F. Dribben Memorial Award: David H. Darden, Conover

Everett C. Drake Honor Award: McDaniel L. Beard, Burlington

Lawrence Iason Honor Award: Stephen J. Laton, Norwood

North Carolina Textile Manufacturers Association Award: James Martin Daniels, Winston-Salem

Phi Psi Fraternity Award: Clay Vance Richardson, Jr., Star

John M. Reeves Scholarship: David P. Turner, Burlington

Harry Riemer Honor Award: Philip A. Thompson, Raleigh

Chester H. Roth Honor Award: Willis A. Drew, Hope, Rhode Island

Sigma Tau Sigma Scholarship Fraternity Award: Steve M. Hinson, Concord

Textile Veterans Association Honor Award: Lonnie L. Bryant, Rocky Mount

John E. Reeves Award: Hubert J. Privette, Jr., Conover

Donald F. McCullough Award: Michael J. Black, Burlington

ALUMNI ATHLETIC TROPHY

Duncan Vann Williford, Fayetteville

PHI KAPPA PHI, NATIONAL HONORARY SCHOLARSHIP SOCIETY

Intellectual Achievement—Ph.D. Candidate: David Ray Johnson, Fayetteville

Intellectual Achievement—M.S. Candidate: Crowell Gattis Bowers, Jr., Norwood

Highest Scholastic Achievement—Senior: Mrs. Jacquelin Erickson Young, Burlington

Highest Scholastic Achievement—Junior: Miss Helen Boyd Stewart, Raleigh

Highest Scholastic Achievement—Sophomores: Gilbert Chi Yan Kwong, Hong Kong; John Alan Pasour, Bessemer City

AIR FORCE ROTC AWARDS

American Legion ROTC General Military Excellence Award: Cadet Colonel Gary W. Brock, High Point (Gold Medal); Cadet Captain Robert J. McCormick, Hazlet (Silver Medal)

American Legion ROTC Scholastic Award: Cadet Major James M. Norris, Osyka, Mississippi (Gold Medal); Cadet Captain Terrence F. Deaton, Star (Silver Medal)

Armed Forces Communications and Electronics Association Award: Cadet Major Robert W. King, Jr., Fayetteville

Daughters of the Founders and Patriots of America Medal: Cadet Lt. Colonel David L. Hayes, Durham

Sons of the American Revolution Medal: Cadet Airman First Class Jack D. Liverman, Jr., Humacho, Puerto Rico

Reserve Officers Association Membership Award: Cadet Major Peter V. Abene, Ayden

Reserve Officers Association Certificates: Cadet Airman First Class Douglas E. Utley, Raleigh; Cadet Sergeant Richard D. Barrier, Concord; Cadet Major James M. Norris, Osyka, Mississippi.

Reserve Officers Association Medal: Cadet Captain Steven A. Bryan, Evergreen
Air Force Times Award: Cadet Major James E. Taylor, Hookerton

Professor of Aerospace Studies Award: Cadet Colonel Gary W. Brock, High Point
Major General William C. Lee Award: Cadet Lt. Colonel David L. Hayes, Durham

Commandant of Cadets Award: Cadet Lt. Colonel George T. Jenkins, Rocky Mount

Cadet of the Year Awards: Cadet Airman First Class Douglas E. Utley, Raleigh; Cadet Master Sergeant Charles R. Martin, Boone; Cadet Major David E. Warren, Newton Grove

Arnold Air Society Award: Cadet Master Sergeant Charles R. Martin, Boone

General Dynamics Award: Cadet Master Sergeant Charles B. Clayton, Raleigh
Society of American Military Engineers Award: Cadet Captain Charles M. Craft, Potland, Oregon

Flight Leader Award: Cadet Captain Alfred M. Roberts, Durham

ARMY ROTC AWARDS

American Legion Medals for Military Excellence: David H. Vaughan, Virgilina, Virginia; Randy F. Nelson, Charlotte

American Legion Medals for Scholastic Excellence: Phillip E. Scuderi, Washington; Carl W. Hall, III, Mt. Ulla

Armed Forces Communications and Electronics Association Medal: Duncan V. Williford, Fayetteville

Daughters of the Founders and Patriots of America Medal: Erich A. Paul, Winston-Salem

Sons of the American Revolution ROTC Medal: William E. Baldwin, III, Bridge City, Texas

Reserve Officers Association Certificates: Paul H. Spivey, Greenville; Donald W. McPhail, Newport News, Virginia; John F. Watson, Annandale, New Jersey

Reserve Officers Association Medal: Dwight C. Reynolds, Frederick, Maryland

Association of the U. S. Army Medal: Terry T. May, Raleigh

Association of the U. S. Army Award: Lyonel C. White, Hamlet

Department of the Army Superior Cadet Awards: Dwight H. McLean, Rocky Mount; Donald W. McPhail, Newport News, Virginia; Ronald G. Pearson, Clinton; John F. Watson, Annandale, New Jersey

Certificate of Meritorious Leadership Achievement: James B. Raper, Whiteville

Colonel John W. Harrelson Award: Thomas B. Jackson, Hickory

Scabbard and Blade Award: James B. Raper, Whiteville

Pershing Rifles Awards: Roy E. Craft, Gastonia; James D. Callahan, Lexington; Jerry S. Williams, Raleigh

Pershing Rifles Awards (Regimental Drill Meet): Joe Harris, Elkin; Robert L. Boylston, Greensboro; Alfred Deas, Wilmington; William M. Litaker, Belmont; Vernon C. Wilson, Asheboro; Thomas L. Rich, Durham; Paul K. Thames, Raleigh; Paul L. Williams, Florence, South Carolina

Reserve Officers Association Membership Award: Carl W. Smith, Camden, New Jersey

Society of American Military Engineers: John F. Watson, Annandale, New Jersey

OUTSTANDING TEACHER AWARDS

This year the graduating seniors have selected two recipients for the outstanding teacher awards. Each award is accompanied by a \$500 check from the North Carolina State Alumni Association.

The awards are announced each year as part of the Commencement exercises.

USAF ROTC Cadets Commissioned 1969-1970

TO BE COMMISSIONED ON 30 MAY 1970

*Brock, Bary Wayne	High Point
*Hayes, David Lee	Durham
*King, Robert Wilson, Jr.	Fayetteville
*Norris, James Michael	Osyka, Mississippi
*Tayloe, Robert Matthews	Ahoskie
*Thompson, John Alvin	Ashville
Abene, Peter Vaden	Ayden
Andrew, David Branson	Skyland
Brodeur, Richard Edward	Lebanon, Pennsylvania
Burnet, Gilbert Neff	Charlottesville, Virginia
Dietz, Alan Lee	Hickory
Dulaney, Robert Bunker, Jr.	Jacksonville, Florida
Hauser, Joseph Alfred, II	Odenton, Maryland
Henley, William Arthur	Randleman
Jenkins, George Thomas	Rocky Mount
Joyner, Edward Lang	Charlotte
Messer, Terry Henson	Waynesville
Moore, Willard James, Jr.	Millington, New Jersey
Nassef, Namon Anthony	Kinston
Peppe, Timothy Alan	Clarksville, Tennessee
Ready, Edgar Lowndes, III	Johnston, South Carolina
Reed, Lewis Oliver, Jr.	Gettysburg, Pennsylvania
Smth, Bradley Wayne	Chapel Hill
Smith, Lanny Nelson	Mocksville
Soderquist, Charles William	Asheville
Spry, Ronald Craig	Cooleemee
Stertz, Joseph Karel	Greenville, South Carolina
Stilwell, George Hugh	Concord
Watkins, Daniel Lee	Raleigh
Weeks, Larry Allen	Clinton
Wiggs, James Edward, Jr.	Greensboro
Vanpelt, David Frank	Kannapolis

COMMISSIONED ON 24 JANUARY 1970

Harvey, Boyce Landreth	Winston-Salem
Hoggard, Douglas Arthur	Madison
Holley, Thomas David, Jr.	Colerain
Wilson, George Stephen	Atlanta, Georgia
Wagner, Charles Sundy	Salisbury

TO BE COMMISSIONED 11 JULY 1970

*Becker, Robert August	Lebo, Kansas
Boyer, Earl Ross	Washington
Matheson, Gary Wayne	Havelock
Stammely, Thomas Edward	Raleigh

* Distinguished Military Graduate

Army ROTC Cadets Commissioned 1969-1970

TO BE COMMISSIONED ON 30 MAY 1970

*Wynne, Phylis J.	Raleigh
**Bedington, Randy S.	Hickory
**Griswold, Philip D.	Rutherfordton
**Hall, Carl W., III	Mount Ulla
**Neher, Gerald W., Jr.	Decatur, Alabama
**Nelson, Randy F.	Mooreville
**Owens, Seth M., Jr.	Stantonsburg
**Robbins, Robert D.	Raleigh
**Sparks, Thomas C.	Cycle
**Taylor, Edward L.	Grafton
**Williams, Jerry S.	Raleigh
Ashby, James N.	Greenville
Barnes, Carl B., Jr.	Alexandria, Virginia
Bengston, Neal M.	Raleigh
Berryman, Ronald M.	Hobbsville
Bowles, Timothy F.	Hiddenite
Braddock, James N.	Chapel Hill
Brake, Joseph S., Jr.	Rocky Mount
Canning, Thomas J., III	Huntington, New York
Cherry, Donald V.	Raleigh
Cochrane, James C., Jr.	Raleigh
Corpening, Charles L., Jr.	Canton
Cromartie, David E.	Raleigh
Culp, Alan J.	Gold Hill
Cunningham, Richard H. G.	Stamford, Connecticut
Darden, David H.	Conover
Deaton, Larry D.	Greensboro
Dickinson, Richard J.	Wilmette, Illinois
Drew, Willis A.	Hope, Rhode Island
Ford, Howard L., Jr.	Raleigh
Fox, James R.	Hickory
Frazelle, Charles W.	Wilmington
Gilbert, James M.	North Wilkesboro
Goldsmith, James W.	Marion
Greene, Robert L.	Wilson
Gulledge, Maurice D.	Raleigh
Gurley, William B.	Roanoke Rapids
Hahn, George R., Jr.	Mount Pleasant
Hardy, Albert V., Jr.	Raleigh
Harris, Gary E.	Elon College
Harvey, Thomas E.	Glen Mills, Pennsylvania
Holcombe, Roger L.	Candler
Huggins, Kenneth L.	Fayetteville
Jenkins, Perry W.	Stony Point
Jones, Charles I., Jr.	Princeton

* Women's Army Corps

** Distinguished Military Graduate

Jones, Stephen J.	Raleigh
Maner, Andrew F.	Wadesboro
McDowell, Marshall P., Jr.	Waxhaw
McLean, Robert M.	Horse Shoe
McMahon, Ronnie A.	Cramerton
McNeill, Daniel H., Jr.	Clarkton
Meisky, Richard D., Jr.	High Point
Miller, Bruce L.	Salisbury
Murray, Richard P.	Raleigh
Oakley, Clarence W., Jr.	Roxboro
Pearce, James W.	Winston Salem
Perry, Chatry D.	Durham
Phillips, Tommy L.	Lillington
Rhode, John R.	Asheville
Richardson, Clay V., Jr.	Star
St. Clair, Ray E.	Charlotte
St. Peter, William J.	Smithfield
Shuford, David W.	Hickory
Sinnett, John F., Jr.	Raleigh
Sloop, Roderick E.	West Jefferson
Sloop, Roger A.	West Jefferson
Smith, Carl W.	Camden, New Jersey
Smith, Luther E.	Bel Air, Maryland
Snellings, William R., Jr.	Augusta, Georgia
Stephens, Craton G., III	Garner
Stewart, James A.	Durham
Sykes, Harold M., Jr.	Greensboro
Taylor, Fred C.	Grifton
Tenney, Brian H.	Alexandria, Virginia
Wells, Ronald W.	Warrenton
White, Donald K.	Wendell
Williams, Philip E.	Charlotte
Winston, Hubert M.	Washington, District of Columbia
Woolard, Wiley M.	Washington, District of Columbia
Wooten, James A.	Dunn

COMMISSIONED JANUARY AND MARCH, 1970

Biggers, David W.	Morganton
Bruce, Robert S.	Murphy
Davis, Benny L., Jr.	Washington
Davis, William L.	Jamesville
Duncan, William H., Jr.	Greensboro
Foley, Harold J.	Raleigh
Garriss, Walter T., Jr.	Raleigh
Harrison, Thomas G.	Walkertown
Hoffman, Joseph K.	Gastonia
Jones, Stephen J.	Charlotte
Mason, John L.	Washington
McFayden, John C.	Raeford
Mullnix, Steven D.	Wadesboro
Owens, John T.	Fayetteville
Pope, Patrick L.	Raleigh
Reese, Bertram L.	Macon, Georgia
Ristiano, John P.	Fayetteville
Vaughn, Boyd F., Jr.	Greenville, South Carolina

TO BE COMMISSIONED JULY AND AUGUST, 1970

*Barnes, Bobby D.	Knightsdale
*Blanton, Larry J.	Mount Olive
*Midgett, Charles O.	Belhaven
*Watson, John F.	Annandale, New Jersey
*Williford, Duncan V.	Fayetteville
Adams, Lyn E.	Raleigh
Daniel, Walter E., Jr.	Charlotte
Fragakis, John G.	Charlotte
Greene, Johnny P., Jr.	Burlington
Hasson, James K., Jr.	Durham
Hawfield, Edward H.	Raleigh
Hoffmaster, James W.	Randallstown, Maryland
Hunter, Henry L.	Clarksville, Virginia
Johnson, Ralph S.	Winston-Salem
McSwain, Jerrold D.	Winston-Salem
Nash, Ross W.	Raleigh
Norman, Kenneth G.	Reidsville
Routh, Thomas E.	Newport News, Virginia
Styles, Jack B.	Clemmons
Sullivan, James D.	Raleigh
Wilkie, Dean E.	Lenoir
Worrell, Stephen K.	Roanoke, Virginia
Wyatt, Roger D.	Albemarle

* Distinguished Military Graduate

Navy ROTC Commissioned 1969-1970

TO BE COMMISSIONED ON 30 MAY 1970

Underwood, Thomas E.	Charlotte
Waldron, Denis F.	Raleigh
Gwyn, James W., Jr.	Winston-Salem
Chubb, Ralph G.	Wilmington, Delaware

USMCR Commissioned 1969-1970

TO BE COMMISSIONED ON 30 MAY 1970

Blankenhorn, Richard D.	Raleigh
Rivenbark, Charles R.	Wilmington

the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion.

There are many reasons for this increase. One of the main reasons is that the population of the world is growing rapidly. In 1990, the world population was 5.3 billion. In 2000, it was 6.1 billion. In 2010, it is expected to be 6.9 billion.

Another reason is that the number of people who are illiterate is increasing in many developing countries. In 1990, the number of illiterate people in these countries was 1.2 billion. In 2000, it was 1.4 billion. In 2010, it is expected to be 1.6 billion.

There are many reasons for this increase. One of the main reasons is that the population of these countries is growing rapidly. In 1990, the population of these countries was 3.5 billion. In 2000, it was 4.1 billion. In 2010, it is expected to be 4.7 billion.

Another reason is that the number of people who are illiterate is increasing in many of these countries. In 1990, the number of illiterate people in these countries was 1.2 billion. In 2000, it was 1.4 billion. In 2010, it is expected to be 1.6 billion.

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