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Clemson Commencement Program, December 1970

Clemson University

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CLEMSON UNIVERSITY

Graduating Exercises

December 17, 1970

Clemson, South Carolina

Graduation

Thursday, December 17, 1970
11:15 a.m. — Littlejohn Coliseum

ORDER OF EXERCISES

(Audience will please stand as faculty and seniors march in
and remain standing for the Invocation)

Invocation

The Reverend Charles A. Arrington
Pastor, First Baptist Church
Clemson, South Carolina

Conferring of Degrees and Delivery of Diplomas

President Robert C. Edwards

Benediction

Mrs. Edith B. Card, Organist

CANDIDATES FOR ASSOCIATE AND BACHELOR'S DEGREES

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

BACHELOR OF SCIENCE

Agricultural Economics

Randall Larry Bell	Greenwood	George Charles Manos	Pennsauken, N. J.
Murray Joel Corman	Miami Beach, Fla.	*James Russell Sursavage	Andrews, N. C.
Steve Radley Edwards	Johnston		

Agronomy

*John Carrol Carrington	Swansea	James Manly Kelley	Darlington
Thomas Davis Holstein	Monetta	Bradley Joel O'Neal	Fairfax

Animal Science

John Calhoun Cornwell	Chester	Earle Rowland II	Wedgefield
Horace David Gilliam, Jr.	Pelzer	Alice Tillman Woodside	Columbia
John Andrews Patterson	Easley	Michael Clarens Workman	Woodruff

Biology

James Luther Alverson, Jr.	Pelzer	James Arnold Lehmann	North Charleston
Robert Estes Bailey	Eatontown, N. J.	Casper Fred Marcinak, Jr.	McClellanville
George Wayne Brockington	Columbia	Johnnie Frederick Milton, Jr.	Lake City, Fla.
William Thomas Brooks	Decatur, Ga.	Paul Charles Myers	Winter Haven, Fla.
Charles Alan Collum	Monetta	Charles William Pate	Charleston
Dennis David Donohue	Cedar Grove, N. J.	Everett William Siedschlag, Jr.	
Marianne Eismann	Greenville		West Columbia
Alexander Faulkner Fewell, Jr.	Rock Hill	Geraldine Wojeck Stanford	Marietta
William Earl Fowler, Jr.	Wadmalaw Island	Paul Nicholas Valerio	Hamburg, N. Y.
David Ruple Hutto	Orangeburg	Angus Hammett Warren	Charleston

Dairy Science

Samuel Kirk McKeown	Roebuck
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Horticulture

James Cleveland Carey, Jr.	Clemson	*Louis Bernard Lynn	Darlington
William Roger Crenshaw	Clemson		

Poultry Science

Thomas Waring Acker	Anderson
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COLLEGE OF ARCHITECTURE

BACHELOR OF ARTS

Pre-Architecture

Jack O'Dell Walker	Columbia
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BACHELOR OF SCIENCE

Building Construction

John Howard Frank III	Darlington	*Morris Rea Ritch III	Charlotte, N. C.
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BACHELOR OF ARCHITECTURE

Ira Vincent Hager	Laurel, Del.	Robert Theodore Matthew, Jr.	
			North Charleston

COLLEGE OF EDUCATION

BACHELOR OF ARTS

Elementary Education

*Peggy Marie Batson Greenville
*Doris Mitchell Bradberry Williamston
Rebecca Harper DeFoor Westminster
Jane Lee Fife Clemson
Edith Anne Glenn Anderson
Bonnie McGee Lewis Anderson
*Carolyn Moore Phillips .. Greensboro, N. C.

Jerrie Geel Shaw Ft. Lauderdale, Fla.
Shirley Rogers Smith Seneca
**Margaret Scott Snellings Spradlin
..... Bluefield, W. Va.
Emily Bennett Warren Mauldin
Erica Jean Wilson Greenville

Secondary Education

**Peggy Reynolds Alverson Canon, Ga.
George August Anderson, Jr. Columbia
James Richard Bowen Blackwood, N. J.
Patrick Marshall Brown Lawrence, N. Y.

Cathy Dunn Elder North
William Henry Gaines Travelers Rest
Pamela Craft Keeter Gastonia, N. C.
*Paula Elizabeth Sloan Union

BACHELOR OF SCIENCE

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(Agricultural Education is jointly administered by the College of
Agriculture and Biological Sciences and the College of Education.)

Clayburn Smith Barnette, Jr. Rock Hill
John Alan Cunningham Pleasantville, N. J.
Guy Arvin Jenkins Asheville, N. C.
Thomas Elden Lee Alcolu

Gary Alan Lillis Greenport, N. Y.
Joseph Wayne Logan Chester
John Mart Simmons, Jr. Mountville

Industrial Education

Samuel Harry Childers Greenville
Ernest Lerand Gandy Florence
John Martin Hamrick, Jr. Gaffney
Kenneth William Lake Hicksville, N. Y.

Sanford Harold Loef Gainesville, Ga.
Kirk Morgan McCloskey .. Washington, D. C.
Richard Byron Witter Skaneateles, N. Y.

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Larry Lester Lawson High Point, N. C.
Charles Edward McGee, Jr. Wheaton, Md.
Ray Maria McNamara Greenville

Donald Wayne Richardson Conway
Robert Ronald Thornton Glenn Springs
William David Webb Columbia

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Kenneth Vinton King Madison

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Wayne Franklin Brimer College Park, Ga.

Chemical Engineering

Constantine Yates Stevens .. Wadmalaw Island

Civil Engineering

Joseph Preston Carter III	Startex
Harold Richard Davis	Orangeburg
Richard Champion Davis, Jr.	Mt. Pleasant
Richard John Dorey	Aiken
Richard Brown Haddock	Kingstree
Haskell David Hardy, Jr.	Laurens
Perry Dean Holcombe	Spartanburg
Warden Winborn Hughes	Hartsville
Robert Stanley Jones	Lake Lure, N. C.
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David Craig Lynch	Willingboro, N. J.

Robert Daniel Ogletree	_____	Cayce
Robert Harvey Robey, Jr.	_____	Bethesda, Md.
**Dan Milton Earl Rogers	_____	Williamston
Richard Anthony Rydarowski	_____	
	_____	East Meadow, N. Y.
Robert Charles Sharpton	_____	Orangeburg
Jimmie Ralph Smith	_____	Greenville
Ronald Delano Smith	_____	Piedmont
Charles Kirkland Smoak, Jr.	_____	Orangeburg
William Walter Thompson	_____	Dover, Del.

Electrical Engineering

Thomas Norman Bradley	Greer
James Larry Chandler	Greer
**James Louie Coleman, Jr.	Ridgeway
Thomas Hudson Collins	Winnsboro
Brian Edward Doyle	Closter, N. J.
*Ronald Edward Glenn	Ravenel
Ronald Lester Green, Jr.	Birmingham, Ala.
Larry Clifford James	Columbia

Robert Arnold Knoerr	Seneca
Thomas Charles Meier	Easley
Bruce Edwin Rayle	Richmond, Ind.
Jeff Willard Rowell, Jr.	Easley
William LeRoy Strong, Jr.	Hanahan
Jerry Wayne Traynham	Honea Path
Walter Larry Williams	Greenville

Mechanical Engineering

Robert Wisler Beachy	Atlanta, Ga.
Melvin Neel Browne	Troy
George John Fredrick Bullwinkel, Jr.	
	Mt. Pleasant
David Ray Dover, Jr.	Spartanburg
Ian Frazer Eisenbrey	Elmer, N. J.
Boyce Tyndall Estes, Jr.	Rock Hill
Charles Fenton Fadeley, Jr.	
	Lexington Park, Md.
Foster Mitchell Garner	Rock Hill

William James Grayson III	Charlotte, N. C.
David Maxie Hardin	Laurens
Robert Cody Lenhardt	Charleston
Robert Errol Martin	Gray Court
Henry Laurens Mellichamp III	Mt. Pleasant
Russell Paul Muschick	Mt. Pleasant
Dale Roy Schielke	Titusville, N. J.
Andrew George Sidrony	Metuchen, N. J.
Samuel Robert Spann, Jr.	Myrtle Beach

Metallurgical Engineering

Ralph James Brackett _____ Tampa, Fla.

Vanderbilt Carl Pundt Chester

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John Carroll Chapman Winnsboro
*Thomas Daniel Dreher Summerville

John Edwin Miller Anderson
John Wotring Tucker, Jr. Charleston

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Rex Alan Brown ----- Cayce
Valerie Jean Carson Bryan ----- Walterboro
Oscar Lee Grant Carter ----- Dillon
Ted Eugene Carter ----- Fort Mill
Ronnie Wayne Cauthen ----- Heath Springs
William Patrick Charping ----- Iva
John Leonard Fulmer, Jr.
----- Avondale Estates, Ga.
Richard Warren Gardner -- Cinnaminson, N. J.

Jon Ashford Giles	Greer
Frederick Louis Hiser, Jr.	Bel Air, Md.
Michael Andrew Ingles	Charleston, W. Va.
James Edward Leon	Chatham, Va.
Jewell Pierce McLaurin	Dillon
John Lyon McMurray, Jr.	Greer
*Robert Gene Patterson	Clinton
James Goodlette Taylor	Greenville
John Leon Wade	Hartford, Ark.

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 Norwood Leslie Alessandro Sumter
 John Vincent Bonnett III Asheville, N. C.
 Roger Dale Bullard Sumter
 Kenneth Butler Bergenfield, N. J.
 Charles Eugene Cauble Columbia
 Jonathan James Couchell Spartanburg
 Adriano Demori Cliffside Park, N. J.
 Ernest McCullough Duvall Cheraw
 Tommy Collis Dykes Anderson
 Gerald William Hill Pine Hill, N. J.
 Edward Joseph Holland, Jr. Islip, N. Y.

James Edward Lockery, Jr. Spartanburg
 Robert Andrew Lyons, Jr. Marietta, Ga.
 Richard Claude Miller, Jr. Greenville
 Harry Galt Moore, Jr. Chattanooga, Tenn.
 Francis Mitchell Ott, Jr. Columbia
 Everette Orwig Page III Spartanburg
 Robert Michael Plante Hanover, N. J.
 Phillip Daniel Rogers Easley
 Lawrence Ray Tew Greenville
 David Vernon White Cheraw
 William David Wilburn, Jr. Greenwood
 James Michael Woodall Rock Hill

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 Alan John Anderson Baldwin, N. Y.
 John Law Anderson Clinton
 Paul Walker Askins Hartsville
 Paul Rudolph Bazemore, Jr. Beaufort
 Johnny Link Cagle Cayce
 Walter Childson, Jr. Philadelphia, Pa.
 Henry Laib Cogan Washington, D. C.
 Bob Davison Gilbert, Jr. LaFayette, Ga.
 Shannon Kathleen Green Sumter
 Robert Benjamin Hooks, Jr. Winter Park, Fla.
 Robert Wynne Houseman Greenville
 James Howard Jones Danville, Va.
 William Halbert Keeter, Jr. Aiken

Thomas Oliver Mitchum .. Charleston Heights
 Richard Scott Nickel Orangeburg
 Mark Michel Nowakowski Baltimore, Md.
 Ernest Milton Platt, Jr. Georgetown
 Edmond Marcum Ragsdale Easley
 James Lewis Rivers, Jr. Greenville
 John Randal Roberts Charleston
 Louis Emile Storen, Jr. Charleston
 William Norris Turner Greenville
 Edward Allen Wenz Edison, N. J.
 Daniel Rufus White, Jr. Gaffney
 William Robert Wise III Abbeville
 Cecil Gerald Youngblood Hardeeville

Textile Science

James Irby Brown, Jr. Belvedere

Michael Eugene Evans Abbeville

Textiles

Ronald Joe Hogg Greenville

James Edward O'Connor Anderson

COLLEGE OF LIBERAL ARTS

BACHELOR OF ARTS

John William Barrett Central
 ***Dale Evelyn Bebko Spartanburg
 William Larry Bendt Charleston
 Stephen Anthony Bowie Liberty
 David Matthew Brown Burlington, N. J.
 Charles Donald Cann Anderson
 Norman Douglas Crain Westminster
 Wess MacLand Dobson Central
 Robert Martin Donnelly Cranford, N. J.
 Wallace Rockwell Evans III Rock Hill
 *Ellen Ann Johnson Hall Clemson

Marian Eileen Langford Orangeburg
 Allan Winfield Libby
 Huntington Station, N. Y.
 Joseph Stanley Michalowski, Jr. Sumter
 Mary Whitaker Nuckols Aiken
 **Ida Louise Powell Fairfax, Va.
 *Kathy Wilson Putnam Seminole, Fla.
 Donald Lewis Rozier Dillon
 John Wesley Webb, Jr. Greenville
 Diana Sara Wright Clemson

SCHOOL OF NURSING

ASSOCIATE IN ARTS

Nursing

Audrey Dianne Cockfield Honea Path

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*Judith Anne Kossler Charleston

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Joseph David Meirik Stratford, Conn.

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William Miley Rivers, Jr. Moncks Corner

Mathematics

Richard Jonathon Dill Charleston Mary Jane Dobbins Townville

Medical Technology

*Evon Hart Baker Wedgefield Suzanne Hotinger Columbia
Lewis Charles Dase Gaffney Frances Marie Moll Clemson
Marika Ann Ellenburg Liberty

Physics

Henry Charles Brown Sumter

Pre-Medicine

**Lyman Ashurst Ducworth, Jr. Williamston Ronald Keith Stephens Spartanburg
Russell Eugene Forges Highland Park, N. J. Thomas William Talbert, Jr. Columbia

*With honor

**With high honor

***With highest honor

CANDIDATES FOR MASTERS' DEGREES

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

MASTER OF SCIENCE

Animal Science

Joe White Nickles Donalds

Biochemistry

Donald James Tindall Columbia

Botany

Margaret Anne Boulware Winnsboro

Horticulture

Alta Randall Kingman Rock Hill Cecilia Shun-Tseng Lin Taipei, Taiwan

Microbiology

Lawrence Willis Blakely Simpsonville William Seaphus Brewer, Jr. Belton
Frank Warren Breazeale Anderson

Poultry Science

John Falconer Knechtges Newark, Ohio

Wildlife Biology

Larry Edward Warlick Hickory, N. C.

Zoology

Robert Bernard Moorehead, Jr. Charleston

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(Agricultural Education is jointly administered by the College of Agriculture and Biological Sciences and the College of Education.)

Donald Daniel Durham Piedmont

MASTER OF EDUCATION

Mary Finley Babb	Easley	Judith Chapman Slaughter	Sandy Springs
Lois Turner Blackwell	Duncan	Roston Miels Smith, Jr.	Anderson
Joe Kirkpatrick Brown	Hickory Grove	Marjorie Ussery Stokes	Seneca
Ryland David Crews	Richmond, Va.	Thomas Jefferson Tisdale, Jr.	Sumter
Barbara Ann Dorrah	Taylors	Roger Thomas Titus	Gloversville, N. Y.
Ruth Lee Elizabeth Lam	Columbia	Ellen Nix Torrence	Atlanta, Ga.
Betty Dickson Long	Piedmont	Teresa Gwen Van Duyn	
Caroline Sturgis Reese	Ware Shoals	Ft. Walton Beach, Fla
Jane Arndt Shulenburg	Newton, N. C.	Jerry Wayne Wise	Pamplico

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COLLEGE OF ENGINEERING

MASTER OF SCIENCE

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(Agricultural Engineering is jointly administered by the College of Agriculture and Biological Sciences and the College of Engineering.)

Lang Ruey Wang Chang-hwa, Taiwan Tan-Chung Young Taipei, Taiwan

Bioengineering

Denton McKendree Harold, Jr. New Smyrna Beach, Fla.

Ceramic Engineering

Theodrick Lamont Elghmie Stamford, N. Y.
Evans Allen LaRoche, Jr. Clemson

Joseph Charles McLarney Portville, N. Y.

Chemical Engineering

James Blythe Ledbetter III Belton William Michael Morgan Paris, Tenn.

Civil Engineering

Sidney Lee Allison Marietta Murat Fehmi Tasar Istanbul, Turkey

Electrical Engineering

Dhirendra Laxmidas Ashar Borivli, Bombay
Robert Lawrence Dobson Greer

Elliott Holland McGinnis Norfolk, Va.
Richard Perry Pinckney Charleston

Engineering Mechanics

David Van Gurley Orlando, Fla.

Environmental Systems Engineering

Lester Yerby Pilcher Columbia Guy Elmore Slagle, Jr. Garden City Beach

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

MASTER OF SCIENCE

Management

Jesse Frank Dillard Taylors
Edward Stanley Helfer Slickville, Pa.
Tracy Howard Jackson Clemson

Lawrence Terry Owen Brevard, N. C.
Albert John Pejack, Jr. Johnstown, Pa.
Elmer Carlisle Whitten, Jr. Walhalla

Textile Chemistry

Marion Washington Oliver, Jr. Charleston

Textile Science

Dharmendra Harilal Batavia Madras, India

COLLEGE OF LIBERAL ARTS

MASTER OF ARTS

English

Eugenie Graham Comer Union

Sybil Campbell Sanders Shannon, Ga.

History

Richard Henry Sikes Greenwood

COLLEGE OF PHYSICAL AND MATHEMATICAL SCIENCES

MASTER OF SCIENCE

Chemistry

Jerry Marvin Clemons Fairlea, W. Va.

Louis Raymond Womble, Jr.
..... Rocky Mount, N. C.

Mathematics

Michael Vernon Newman Vidalia, La.

Physics

Burt Howard Colt, Jr. Hendersonville, N. C.

Linda Lawson Payne Spartanburg

CANDIDATES FOR DOCTORS' DEGREES

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

DOCTOR OF PHILOSOPHY

Agricultural Economics

Eugene Anderson Laurent Bartow, Fla.
B.S., University of Georgia; M.S., University of Nebraska
Dissertation: An Input-Output Study: Economic-Ecologic Analysis in the Charleston Metropolitan Region

Agronomy

Shashi Mohan Rishi Jabalpur, India
B.S., M.S., University of Allahabad, India
Dissertation: Manganese Availability In Soils As Affected By Fumigants

Animal Physiology

Carlos Frederico Lam, Jr. Panama City, Panama
B.S., M.S., Clemson University
Dissertation: Milk Secretion of Beef Cows Injected with Estradiol-valerianate During Pregnancy

Chen-Hau Poon Hong Kong
B.S., M.S., Clemson University
Dissertation: The Ultrastructure of Bovine Endometrial Cells at 3, 8, and 18 Days Post Mating

Nutrition

Sherman Thomas Mayne Paducah, Ky.
B.S., Southeast Missouri State College; M.S., Southern Illinois University
Dissertation: Isolation and Partial Characterization of Zinc Binding Proteins Found in the Circulatory Systems of Chicks Immediately After Absorption

COLLEGE OF ENGINEERING

DOCTOR OF PHILOSOPHY

Engineering

Nuri Akkas Tavsanlı, Turkey
B.S., Robert College, Turkey; M.S., Clemson University
Dissertation: Buckling, Initial Post-Buckling, and Axisymmetric Dynamic Buckling Behavior of Shallow Spherical and Conical Shells (Field of Specialization: Engineering Mechanics)

William Jacob Craft Rutherfordton, N. C.
B.S., North Carolina State University; M.S., Clemson University
Dissertation: Stress Singularities in an Elastic Matrix Containing Either a Broken or Short Elastic Fiber (Field of Specialization: Engineering Mechanics)

Frederick Adair Dunlap III Rock Hill
B.S., M.S., Clemson University
Dissertation: Electronically Programmable Physical Testing Instrumentation Applied to Textile Yarns (Field of Specialization: Electrical Engineering)

Rudolf Othmar Friederich Wädenswil, Switzerland
 B.S., Winterthur College of Technology, Switzerland; M.S., Clemson University
 Dissertation: Determination of Binary Adsorption Equilibria of Ethylene-Ethane, Ethane-Propane, and Propylene-Propane of Highly Graphitized Carbon at 25.0°C and Pressures Below One Atmosphere (Field of Specialization: Chemical Engineering)

Frank Louis Lambert Metairie, La.
 B.S., Tulane University; M.S., Clemson University
 Dissertation: An Investigation of the Dynamic Parameters of the Adsorption of Selected Hydrocarbons on a Fixed Bed of Activated Carbon Using a Pulse Chromatographic Technique (Field of Specialization: Chemical Engineering)

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

DOCTOR OF PHILOSOPHY

Engineering Management

Norman Charles Schaffer Ormond Beach, Fla.
 B.S., Furman University; M.S., Clemson University
 Dissertation: An Analysis of the Assumptions and Updating Procedures of National Input-Output Tables Used in Economic Forecasting and Planning

COLLEGE OF PHYSICAL AND MATHEMATICAL SCIENCES

DOCTOR OF PHILOSOPHY

Chemistry

Ibrahim Moayyad Ibrahim Haifa, Israel
 B.A., Shorter College; M.S., Clemson University
 Dissertation: The Effect of Water on the Permeation of Some Permanent Gases in Ethocel

Larry Grant Robinson Mulga, Ala.
 B.A., Howard College
 Dissertation: Part I: A Deuteration Technique and Its Application to the NMR Spectra of Nitrobenzene and Aniline
 Part II: Solvent Effects on the Proton Chemical Shifts of Some Monosubstituted Benzenes

James Robert Stout Kure Beach, N. C.
 B.S., High Point College; M.S., Clemson University
 Dissertation: The Configurational Preference in Some Substituted Bicyclic Ketones and Esters

Mathematics

Marilyn Janet Breen Anderson
 B.A., Agnes Scott College; M.S., Clemson University
 Dissertation: A Determination of the Combinatorial Type of a Polytope by Radon Partitions

Billy Joe Holmes Robert, La.
 B.S., Southeastern Louisiana College
 Dissertation: Convergence Theorems for Series of Bessel Functions

Physics

Clarence Rufus Green Butler, Tenn.
 B.S., East Tennessee State University; M.S., Clemson University
 Dissertation: Effects of Bismuth Impurity on the Critical Magnetic Field Curve of Superconducting Tin