

# UNIVERSITY OF COLORADO at COLORADO SPRINGS

Commencement

May Twenty-Sixth Nineteen Hundred and Eighty-Seven

## THE REGENTS OF THE UNIVERSITY OF COLORADO

Chairman
Dr. Charles M. Abernathy, Jr.
Montrose

Mr. Richard J. Bernick Denver

Mr. Robert E. Caldwell Colorado Springs

Mr. Peter C. Dietze Boulder

Mr. Lynn J. Ellins Longmont

Mr. Hugh C. Fowler Denver

Mr. Sandy F. Kraemer Colorado Springs

Mr. Norwood L. Robb Littleton

Dr. Roy H. Shore Greeley

#### **PROJECTIONS**

To the Class of 1987:

On behalf of the University of Colorado, I am pleased to extend congratulations upon your achievement. Your graduation is a special milestone in your life, and in the life of the University.

It is customary on these occasions to speak of the opportunities in your future. At this commencement, however, I prefer to dwell, however briefly, upon the University's educational task and the problems you will face in the coming decades.

The University is committed to missions in education, research, and public service. Of these, education is generally most visible through classroom teaching. Much more is involved in the pedagogical process, however. During the past several years, the University has endeavored to equip you with the knowledge and skills required to lead intelligent, productive lives in the coming decades. That is a basic component in our mission, but it is only the beginning. It is more important that you also have a sense of those societal and ethical values which have guided humankind in its noblest hours. Courage in the face of adversity, perserverance in times of difficulty, creativity under limits of constraint these are some of the traits you must learn in confronting the problems and challenges of the future. They are functions of personality and experience, and cannot be taught in a classroom. You can, on the other hand, bring to these challenges the knowledge of human experience. and inherent in that experience is the accumulated wisdom of civilization. This is, and should be, your most influential source of learning. Once filtered through your own experience, consideration, and values. this knowledge may guide you in directing the future.

It is your obligation, of course, to consider all appropriate factors in any decision. I urge you to temper knowledge with compassion, to balance immediate gain with farseeing wisdom, and to promote at all times the common good, not self-interest. These are your true obligations to your society, your fellow-citizens, and the future.

The University of Colorado has, I trust, imparted to you an important quantity of knowledge and an appreciation of certain societal and ethical values. It is now your obligation to extend and develop your knowledge and values, and to direct these toward the common good, toward creating a better future. You will face unprecedented challenges requiring heroic efforts. Society'shopes rest with you.

E. Gordon Gee President

E. Midne See

#### ORDER OF EXERCISES

Dr. Robert E. Camley, Commencement Marshall (1986 UCCS Outstanding Teacher)

Posting of the Colors

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Invocation

America the Beautiful<sup>1</sup>

Welcome

Address

Conferring of Honorary Degree Joanne Greenberg

Distinguished Service Award Roger A. Sanborn

Distinguished Service Award Judge Albert J. Tomsic

Legislative Award Jeffrey M. Wells

Regent Emeritus Award David K. Sunderland

Conferring of Baccalaureate Degrees Recognition of Outstanding Graduates

College of Letters, Arts and Sciences Natural Sciences Social Sciences Humanities

College of Business and Administration

College of Engineering and Applied Science

Conferring of Advanced Degrees

Initiation of Graduates into Alumni and Friends Association

Charge to Graduates

Alma Mater<sup>2</sup>

Recessional (audience will please remain seated)

<sup>1</sup>O beautiful for spacious skies, For amber waves of grain, For purple mountain majesties Above the fruited plain! America! America! God shed His grace on thee And crown thy good with brotherhood From sea to shining sea! UCCS ROTC Color Guard

Dr. Joan Fairchild

Dr. Paul Ballantyne

Chancellor Dwayne C. Nuzum

President E. Gordon Gee

Doctor of Humane Letters,

ctor of Humane Letters, honoris causa

> Mary Arreola Sara Pollock Eva Pokorny

Eva Pokorny
Susan Jean Moore

Mark C. Woods

James P. Easton

Interim Vice Chancellor Joan E. Klingel

Dr. Paul Ballantyne

<sup>2</sup>Hail, all Hail our Alma Mater! Ever will our hearts be true You will live with us forever Loyal we will be to you. We will sing forever your praises, Ever more our love renew, Pledge our whole devotion to you, Dear Old C.U.!

## CANDIDATES FOR DEGREES COLLEGE OF LETTERS, ARTS AND SCIENCES

James A. Null. Dean

#### THE DEGREES BACHELOR OF ARTS AND BACHELOR OF SCIENCE

Vernon D. Ackerman, Biology Janie O. Acord, Distributed Studies\* Cum Laude Patti K. Allen, Anthropology/Biology Charlotte D. Alvarenga, Physics and Energy Sciences (B.S.)\*\* Cherry M. Ambrose, Psychology Susan M. Amelio-Doyle, Spanish/Anthropology\*\* with high distinction in Spanish Dennis R. Anderson, Psychology\* Julia C. Anderson, Sociology\*\* Lester F. Anderson, Biology William D. Antle, Psychology Mary L. Arreola, Biology Magna Cum Laude Kelly A. Atler, English\*\* Magna Cum Laude Sheila M. Bach, Psychology Ronald R. Baptist, Psychology Rhonda J. Bauerlein, Psychology\*\* Barry W. Beard, Psychology Harriet A. Beasley, Psychology\* Cynthia L. Bee, English Jean S. Bell, Fine Arts Patricia A.B. Bell, Political Science Cum Laude James R. Bennett, Mathematics Manfred A. Bereuter, History Jill L. Bervinkle, Sociology Kristine M. Bixler, History Linda C. Blessing, Psychology Christian Bloch, Geography and Environmental Studies\* Carolyn S. Boggs, Economics Cum Laude, with highest distinction in Economics. Mark A. Bosko, Geography and Environmental Studies\*\* Bridget M. Boyd, Psychology Barbara S. Bradley, Sociology\*\* Leroy D. Bratz, Economics\*\* Cum Laude with distinction in Economics Suzanne M. Brohman, Psychology William J. Brown, Anthropology Kimberly K. Brue, Sociology\*\* Debra J. Buckman, History\*\* Sarimara C. Burgos, Fine Arts Jeffrey S. Canaday, Communication\*\* Bret L. Carter, English\*\* Laura Christensen, Biology\*\* Kimberly A. Clark, Communication\* Alisa S. Cohen-Van Den Bovenuamp, Psychology Cum Laude Jeffrey B. Cole, Political Science Cum Laude David E. Collins, History Jeffrey R. Conrad, Communication\*\* Laura A. Corr, Fine Arts\* with distinction in Fine Arts Theodora G. Cox, Psychology Cheryl W. Crist-Berry, Communication\*\* Lawrence K. Crook, Geography and Environmental Studies\* Rufus Crosley III, Political Science Laura L. Crumley, Economics Laura Cummings, Mathematics Robin Cunningham, Fine Arts Heather Curtiss, Fine Arts\*\* Janet C. Daugherty, English\*\* with distinction in English Warren L. Davidson, Jr., Psychology\*\* Cynthia S. Davis, Psychology John R. Decker, English Paul T. Dellacroce, History

Jeanine R. Devlin, Anthropology\*\*

Anthony E. DiCenso, Distributed Studies Laurie A. Dickenson-Butcher, Biology Kimberley I. Disnute, Biologyj Jan C. Drewry, Mathematics\* Lance P. DuMond, Psychology\*\* Karen M. Eells, Psychology Gennefer S. Eldredge, Chemistry Martin R. Emmons, Communication\*\* Wallace H. Erickson, Distributed Studies\* Cum Laude Michael D. Esch, Fine Arts Magna Cum Laude Ken P. Evans, Physics and Energy Science (B.S.) C. Leigh Falkner, Psychology Margo A. Farra, Psychology\*\*
Ronald M. Fitz, Distributed Studies Gary L. Fleming, Mathematics Robert F. Foster, History Cliffton J. Fredericks, Distributed Studies John W. Fresh, Communication Marie E. Freymuth, Spanish with highest distinction in Spanish Stacy M. Frost, Psychology/Sociology\*\* Deborah L. Gannon, Chemistry\*' Mark A. Geiger, Mathematics Magna Cum Laude with high distinction Liza A. Glommen, Psychology/Sociology Lisa M. Goodman, Biology Joyce E. Green, Psychology Karen D. Gulya, Mathematics\*\* Christopher P. Hamm, Political Science Kathleen K. Hare, Anthropology/Geography and Environmental Magna Cum Laude Barbara J. Harris, Geography and Environmental Studies CumLaude Denise C. Hartbauer, Psychology Christina C. Hathaway, Economics with highest distinction in Economics Linda S. Heath, Fine Arts/Sociology David S. Heberly, Distributed Studies Michael T. Heedt, Mathematics David M. Henning, History Christian S. Hernandez, Chemistry Gloria S. Hernandez, Sociology/Spanish with highest distinction in Spanish Jerry T. Hicks, Jr., History Ellen F. Hodges, Psychology Donald B. Hoffman, Psychology Magna Cum Laude Michael K. Houser, Psychology Kelly S. Howard, Biology\* Jean Humes, Sociology Marilyn D. James, History Robert M. James, Communication Andrea S. Johnson, Psychology Cum Laude Barbie L. Johnson, Mathematics Elizabeth P. Jones, Sociology James L. Joyner, Chemistry (B.S.) Karol A. Kaltenbacher, Communication Erin L. Kelly, Political Science Pamela G. Killion, Communication\*\* Sandra K. King, Communication/Psychology Magna Cum Laude Shirley B. King, Mathematics Gail M. Klepchak, Economics\*\* Marianne Kozma-Tucker, Communication\*

Paul A. Kuhnhenn, Biology

Leland E. Lacy, III, Distributed Studies Ernest N. Lagasca, Jr., Biology Robert M. Lake, Sociology\* Jorie B. Lamb, English/Psychology Michael D. Landess, Economics\* with distinction in Economics Charyle Langelle-Thompson, Psychology Magna Cum Laude Lisbeth Larsen, Sociology Theresa C. Lebo, Communication Robin M. Londry, Communication Cum Laude Sal C. Lucero, Distributed Studies Gerald H. Martin, Communication Magna Cum Laude Mark W. Mathews, Economics Mark A. Maydew, Psychology Teresa A. McDermott, Biology Summa Cum Laude Thomas J. McGee, Communication Dennis L. McKinney, Communication/Sociology Sue A. W. McMaster, Sociology\* James L. McMullen, Distributed Studies Dianne W. McRae, History Michelle M. Merwin, Psychology Leslie M. Militello, Fine Arts\* Kari-lynn W. Miller, Psychology Lisa A. Mindykowski, English\* Clara J. Mohan, English Magna Cum Laude Stephen S. Montoya, Psychology\* Kevin L. Moore, Psychology\* Daniel M. Morton, Economics Sheryl L. Mueller, Communication\* Lawrence Myers, Sociology\*\* Paul G. Nagy III, Psychology Cum Laude Casey B. O'Neil, Distributed Studies\*\*
Cathleen L. O'Neill, Political Science Cum Laude Helen A. Ogden, Anthropology David Ortiz, Jr., History John W. Owens, Jr., Communication\*\* Patricia L. Painter, Philosophy\*\* with highest distinction in Philosophy James R. Park, Communication\* Richard W. Parker, Psychology Orly S. Penny, Psychology Cum Laude Tony L. Peterson, Chemistry (B.S.) Michael E. Petit, English Nicole A. Phillips, Spanish Magna Cum Laude with highest distinction in Spanish Phillip M. Pike, Biology\* Eva Pokorny, Fine Arts Summa Cum Laude Sara R. Pollock, Psychology\*\* Summa Cum Laude Bret E. Poole, History Ralph E. Popham, English\*\* Vonceil D. Porter, English\*\* Michael A. Pound, Economics\* Daniel M. Prater, Physics and Energy Sciences (B.S.)\* Nona M. Pryor, Sociology\*\* Linda W. Pyfrom, Mathematics\* Shirley T. Quigley, History\* Jana L. Ramsey-Cross, Sociology\* Polly S. Roberts, Communication

Valeda K. Rohrbaugh, History\*\* Pamela J. Roop, Distributed Studies Cheryl S. Royston, Communication\*\* Phillip R. Ruminski, Communication Lisa C. Rusiewicz, Communication Bonita G. Rummage, Sociology Paul W. Safford, Biology/Philosophy Christine S. Schehr, Psychology/Sociology\*\* Lisa J. Schore, Psychology Cum Laude Robert M. Schroetke, II, Biology Magna Cum Laude
Allyn J. Sedgwick, Sociology\*\*
Kathleen G. Seifert, History John W. Shea, Chemistry (B.S.)\* Eric D. Sieben, Communication\*\* Jeff A. Sievers, Mathematics Cum Laude Lisa M. Skrzynecki, Chemistry (B.S.) Karen A. Smalley, Psychology/Sociology Magna Cum Laude with highest distinction in Sociology Rebecca L.H. Smoldt, Anthropology/History Jefferson Spencer, History\*\* Susan M. Spencer, History Daniel K. Starch, Psychology Dianne Sterling, Communication/English\*\*
Roberta L. Sticka, Psychology Lindy G. Stone, Jr., Communication Elizabeth N. Strandberg, Anthropology\*\* Eileen M. Taylor, Distributed Studies\*\* Alice J. Thomas, Communication/Geography and Environmental Studies Magna Cum Laude Leslie A. Throckmorton, Sociology\*\* Barbara G. Thompson, Distributed Studies\*\*
Martha A. B. Tirk, Distributed Studies Lisa A. Titus, Communication Joann Totoro, Psychology Steven D. Traynor, Physics and Energy Sciences (B.S.)\* Kenneth W. Tucker, Communication\* David S. Turnbull, Geography and Environmental Studies Magna Cum Laude Debra A. Uhrich, English Magna Cum Laude Beth A. Vanderpool, Biology\* Richard L. Van Dyke, Geography and Environmental Studies Cum Laude Erica M. Vann, Economics Rema M. Vescosi, Communication\*\* Valerie J. Vranish, Fine Arts\*\* Paula L. Wagner, Economics\*\* Theresa A. Ward, English Catherine L. Warnock, Political Science Colleen K. Webb, Psychology\* Jean L. Wegner, Biology Judith L. Wendell, Distributed Studies Michael P. Wesley, Communication David L. Westerman, Distributed Studies\*\* Kelly J. White, Communication Stephen J. White, Communication\*\* Alan T. Whitney, Distributed Studies Catherine E. Wilson, Communication Deborah F. Woldruff, Geography and Environmental Studies\*\* Stephen J. Yellstrom, Chemistry\*\* Emily L.K. Young, Sociology\*\* Mark V. Zabolotny, Communication Kathleen Ziegler, Economics Robin Zook, Biology Magna Cum Laude

#### COLLEGE OF BUSINESS AND ADMINISTRATION

Dean Edward A. Johnson; Resident Dean James T. Rothe
THE DEGREE BACHELOR OF SCIENCE (BUSINESS)

James H. Agee\*\* James L. Allen Alison Angus\*\* Michael A. Ballou David Barela, Jr. Susan E. Basse Penny R. Beardslee Theresa A. Bender\*\* Theresa R. Berriman Elizabeth A. Bonczek\*\* Jeffrey R. Brent Daniel M. Brewster\*\* Luanne Buchnowski Tracey A. Carroll Caroline Chavez\*\* Diane V. Collier\*\* Michael J. Coltharp Daniel L. Cooper Michael D. Crandell\*\* Virginia C. Cullen\*\* Annette M. Darling\*\* Cyriel J. DePestel\*\* Judine E. Duncanson\*\* Richard V. Dutson Raymond N. Eatman Scott J. Eicher\* Robert L. Elliott Cum Laude Patricia J. Evans\*\* Karen L. Ezzell\*\*

David J. Faulkner\*\* Gina E. Flatt Cynthia L. Francis Julie A. Friedell Charles L. Gardner\*\* Craig W. Gordon Pamela J. Gorrell Cum Laude Glenard E. Goschen\*\* Magna Cum Laude Julie A. Grandpre Benjamin B. Greenlee Edward M. Gregory Jean L. Hadad Thomas J. Hanken Bradford W. Hardman Lori L. Hatchell Thomas E. Hemmings\*\* Marla J. Hinners Kenneth W. Hoffacker\*\* Anna E. Hotson\*\*

Cum Laude

Finnies C. Houtz

David L. Janitell

Kelly Y. Jenkins

Timothy F. Kaup

Steven R. Kelly

John C. Keller, III\*\*

Maana Cum Laude

Marcia G. Kilcrease Magna Cum Laude Michelle M. Korn Barbara J. Langton Gary W. Leak Marlene L. Lechner Debra E. Ledford Carmella L. Leineweber\*\* James D. Long Keith W. Longwell Robert M. Mackell\*\* Carol A. Malone Sean G. Marting Diana C. May Michelle A. McDonald Robert E. McMaster Kenneth D. Meisinger Magna Cum Laude Scott A. Mills Virginia A. Moffitt\*\* Jeffrey W. Molden\*\* Susan L. Mone Susan J. Moore\*\* Magna Cum Laude Carl A. Nelson\*\* Amy M. Nold\*\* Susan M. Nusbaum Roxanne J. O'Bryant\*\*

Terri J. Olsen\*\* Cum Laude Steven J. O'Rourke Donna M. Olalde Carol H. Palmen\*\* Karin A. Parrott Mary K. Patchen\*\* Rebecca Pena\* Cathryn J. Perry Sharon L. Perry\*\* Kenneth L. Pesavento Cum Laude Virginia A. Phipps Nadine M. Pierce Scott M. Poague\*\* Scott D. Popovich Laura L. Provenzano Cynthia G. Raine Mark A. Richwine\*\* Errol F. Ricketts Cum Laude Shirley A. Rogosich Magna Cum Laude John M. Rondeau Eric J. Ruggles Joanne C. Sanders David A. Sarton Cheryl L. Schauer William N. Schill Wendy L. Schuhrke

Linda L. Schwartz

Michelle R. Sebben Charles C. Shivvers\*\* Magna Cum Laude Randal L. Simpson Monique D. Smith\* Armelia L. Snyder\*\* Timothy G. Staab Karen S. Standiford Elizabeth J. Sterk Justin J. Strange\*\* Tammy D. Symanski Ruth M. Tate James R. Themel\*\* Carol S. Thomas Lisa A. Thunberg\* Michael A. Tremaroli\*\* Mary C. Treska\* Evelyn G. Trimarchi\* Mark R. Ulrich Robert W. VanCura Merl A. Wallace Robert E. Warren, Jr.\*\* Penny K. Wart\* Peter Chao-En Wei\*\* James D. Wells\*\* Lisette R. Westberg\*\* Mary E. Wilson Leslie S. Wood Sally R. Wood Cum Laude Joyce E. Yates\*\*

#### **COLLEGE OF ENGINEERING AND APPLIED SCIENCE**

Maana Cum Laude

Beverly R. O'Connell\*\*

Acting Dean John D. Norgard

THE DEGREE BACHELOR OF SCIENCE

Steven W. Abele, Electrical Engineering\*
Cheryl L. Abendschan, Electrical Engineering\*
Michael H. Alonso, Computer Science\*\*
Liseann H. Andersen, Electrical Engineering\*
Richard Aschert, Electrical Engineering\*
with honors

Alex M. Beecher, Computer Science\*\*
Robert S. Berg, Computer Science
Jeanne M. Blackman, Computer Science
Polly A. Blount, Computer Science
Patrick F. Brohman, Computer Science
Pamalee J. Brown, Applied Mathematics
Kimberly K. Bunck, Computer Science\*\*
Michael D. Carpenter, Computer Science
with special honors

Stuart J. Clough, Computer Science with special honors

with special nonors
Michael D. Cochran, Electrical Engineering
Rodrick D. Copeland, Electrical Engineering\*\*
Steven L. Cox, Electrical Engineering\*\*
Lynda S. Douglas, Electrical Engineering
David M. Easterling, Electrical Engineering
Ronald S. Edsall, Electrical Engineering\*\*
Mark C. Evensen, Computer Science
Jill E. Faaborg, Applied Mathematics\*\*
David J. Faulkner, Electrical Engineering\*\*
Ronald W. Gallegos, Electrical Engineering\*
Andrew K. Gallogly, Electrical Engineering\*
Douglas W. Garvie, Electrical Engineering\*\*
Lisa A. Gertcher, Computer Science

Gregory J. Gilman, Electrical Engineering\*\* David W. Hagerty, Computer Science\*\* Dale L. Hjermstad, Computer Science Robert J. Holstine, Computer Science William D. Hoogeboom, Computer Science\*\* Mark R. Hutchinson, Electrical Engineering David M. Jones, Electrical Engineering\*\* Randy E. Kath, Electrical Engineering Michael D. Krenzin, Computer Science Mark C. LaMourey, Electrical Engineering Michael K. Lechner, Applied Mathematics Ronald A. Lee, Computer Science Mark F. Lewis, Electrical Engineering\*\* Gregory J. Mann, Electrical Engineering Timothy P. Maxwell, Computer Science Paul D. McCallon, Computer Science Gordon P. McManus, Electrical Engineering Timothy T. Miller, Computer Science\*\* Robert L. Monroe, Electrical Engineering Kirk M. Moore, Computer Science\* Timothy T.D. Nguyen, Electrical Engineering Thong V. Nguyen, Electrical Engineering David L. Nixon, Computer Science\*i Jonathon D. Nordby, Computer Science Gary V. Nordyke, Electrical Engineering Gary M. Owens, Electrical Engineering Harry F. Padubrin, Electrical Engineering Connie J. Parrish, Applied Mathematics Cynthia A. Pasley, Computer Science\*\* Robert A. Pettis, Electrical Engineering

Stephen R. Porter, Electrical Engineering Scott T. Pottorff, Electrical Engineering Timothy T. Raskob, Computer Science\* Daniel L. Reed, Electrical Engineering with special honors Leonard G. Renoux, Computer Science Tony Romano, Computer Science Stephen M. Rusinko, Jr., Electrical Engineering Cheryl L. Russell, Computer Science\*\* Paul T. Sawyier, Electrical Engineering\*\* Curtis J. Schaap, Electrical Engineering Mindy J. Schulke, Applied Mathematics with honors Richard J. Shick, Electrical Engineering\* Edward H.T. Smith, Electrical Engineering Richard K. Stratton, Computer Science Kimberly A. Tannehill, Electrical Engineering Gregory A. Tarcza, Computer Science\*\* Keith R. Venes, Electrical Engineering\*\* Chuong V. Vu. Electrical Engineering Curtis J. Walser, Computer Science Kirk R. Wiess, Electrical Engineering\*\* Ronald J. Wilkinson, Computer Science Mark C. Woods, Electrical Engineering with special honors Randolph W. Yergert, Electrical Engineering\*\* Bert P. Young, Computer Science\*\* Gary A. Zallar. Computer Science

Sondra S. Pierce, Electrical Engineering\*\*

#### GRADUATE SCHOOL

Hunter R. Rawlings, Dean; Joan M. Fairchild, Resident Dean THE DEGREE MASTER OF ARTS

Debra A. Ackley, Education\*\* Karen J. Alpern, Education Katheryn L. Anderson, Education\* Frances H. Armstrong, Education Pamela J. Armstrong, Education Debbie L. Arseneau, Education Jim H. Ayers, Education\*\* Barbara S. Badgett, Education\* Priscilla A. Barsotti, Education Jane Z. Berry, Education Kathleen C. Bloom, Education Linda J. Boles, Education\*\* Paige D. Borofsy, Education\* Pamela A. Bowen, Education\*\* Vivian D. Bowen, Education Catherine A. Bradshaw, Education\* Michael O. Branson, Education Susan V. Brock, Education\* Harriet J. Broeckelman, Education\* Michael R. Burns, Education \*\* Helen L. Callaway, Education Fred L. Carter, Education\* Jane A. Casper-Briggs, Education\*\* Rilla L. Cheesman, Education Jerilynn J. Ciletti, Education Charles W. Clark, Education\* Katherine A. Cook, Education Alvin J. Corbin, Education Cynthia B. Costanza, Education Mary M. Coupens, Education\* Christopher A. Cowles, Psychology\*\* Melody L. Daigle, Psychology\* Verna J. DeBoer, Education Andrew E. Dickens, Education Patricia A. Domier, Education Charlotte H. Donat, Education Janice D. Driscoll, Education Maryruth Eaves-Herrera, Psychology Lisa B. Elkin, Education Xavier J. Figueredo, Education Lydia J. Fransk, Education \*\* Charlotte R. Gagne, Education\*\* Victoriano I. Galvan, Education\*\* Valerie E. Garcia, Education\* Leonard L. Gauthier, Jr., Education James B. Giffin, Education\* Anita S. Grana, Psychology\*\* Amy M. Gustafson, Education\*\* John C. Guthrie, Education Julia M. Harmon, Education\*\* Sandra K. Harrison, Education\* Mary A. Henry, Education Jacqueline M. Hergenreter, Education Sandra M. Hill, Education\* Sheryl T. Hobbs, Education Mary T. Jay, Education \*\* Kathy N. W. Jefferson, Education Leanne H. Johnson, Education\* Gail M. Kinsey, Education\*\* Gretchen A. Kirstel, Education\* Connie W. Klein, Education

Judith A. Lang, Education Claudia M. Lange, Education\*\* Donald LeVack, Psychology\*\* Barbara G. Litzelman, Education Margarita Lopez, Education Omar C. Lown, Education\*\* Karen L. Lungu, Education\*\* Kelton F. Lustig, Education\* Kevin M. Martin, Education\* Michelle L. Mastrini-McAteer, Education\*\* Lisa A. Mathews, Education Levi B. McAlexander, Education Morreen J. McArdle, Education\* Cindy L. McBride, Education Jane D. McCarthy, Education\*\* Margo J. McCoy, Education Doris F. Mengel, Education\* Jan F. Noble, Education Deborah A. Odell, Education\*\*
Milton R. Ooley, Education Miriam B. Owens, Education Patricia Parkhill, Sociology\* Douglas A. Parro, Psychology Kathye G.R. Pebley, Education\* Ronald W. Place, Education\* Elizabeth R. Porter, Education David M. Powell, Education\*\* Ed Quesada, Education\*\* Anita L. Racht, Education Scharlotte A. Rich, Education\* Mark R. Richardson, Education Stan A. Richardson, Education Gary S. Romjue, Education Larry J. Russell, Education Lorrie S. Russell, Education Rhonda L. Rzepka, Education\* James E. Schneiter, Education\* Janet L. Schuetz, Education\* Jane A. Scott, Sociology\* Aldo A. Sebben, Education Christina P. Shattuck, Education\* Ann C. Smith, Education\* Jane R. Surner, Education Barbara T. Swanson, Education Carolyn E. Taylor, Education\*\* Sandra K. Thorpe, Education\*\* Joan H. Tieman, Education Marilyn J. Tiernan, Education\* Lauri E. Tiilikainen, Education Susan Trainer, Education Judy K. Veneris, Education\*\* Karen T. Wagner, History Gene A. Warneke, Education' LaVonne A. Weinbender, Education Jovce A. White, Education\*\* Joyce L. White, Education Terese A. Whittemore-Dills, Education\* Mary Wickwar, Education Carolyn S. Wilfong, Education\* Margaret S. Williams, Education\* Susan G. Witter, Education\*\*

Beverly A. Kuehl, Education\*\*

#### GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

Dean Edward A. Johnson; Resident Dean James T. Rothe

THE DEGREE MASTER OF BUSINESS ADMINISTRATION

Daniel S. Akerhielm\*\*
Keith R. Bell\*\*
Mary A. Bena
Dale W. Birch
Leah D. Blagg\*\*
Alan R. Bratschun\*\*
Kenneth A. Chance\*\*
Russell A. Crossen
John L. Curry\*\*
Fernando A. DaCruz
Regina S. Deich\*
Paula I. Desrosiers\*\*
Gregory D. Easton

Gary H. Eschenberg
Kitty L. Fowler
Darleen G. Gray
Bruce D. Grimes\*\*
Sharon L. Grimshaw-DaCruz
Carol R. Gruen\*\*
Paul R. Hansen
Dale D. Harward\*\*
David W. Haughton
Donna L. Hawk
Mark J. Hawkins\*
Larry C. Henderson
Kenneth R. Hertz\*\*

David I. Hollenbaugh Judith G. Jager Lauren J. Jervik\*\* Robert F. Jones\*\* Thor L. Kaumeyer Mary K. Kimminau\*\* David S. Lane\* Robert J. Lane Rebecca A. Levin Lewis J. Lomas, III Lynis E. McBride Carol A. McColl Becky L. Medved Susan M. Moore\*
Tamera A.L. Mowrey
Harry E. Owens
Gregory J. Powers\*\*
Robert W. Smith
Arnold J. Sparnins\*\*
Eric M. Thies\*
Gary L. Thompson\*\*
Timothy G. Timm
George D. Trennin
James R. Westkott\*\*
Consuelo A. Williams
Diane L. Wolfert\*\*

#### **GRADUATE SCHOOL OF PUBLIC AFFAIRS**

Marshall Kaplan, Dean; Robert Lorch, Acting Resident Dean THE DEGREE MASTER OF PUBLIC ADMINISTRATION

Eric Bostwick Kathryn R. Dahlberg Edwin N. Fish Jeffrey M. Hauck\*\* Maurice C. Honeycutt\* Jane V. Hook Linda K. Kim John P. Leofsky Kenneth Lingle Susan K. Mayher\*\* Coral J. Main\*\* Carol A. McMillan Richard A. Miklich Ronald J. Romero\*\* Terrence W. Rorick Henry Rosoff Deborah K. Rountree William J. Shaffer\*\* John D. Shanahan\*\* Alfred C. Shea Richard C. Smith Richard A. Snyder Rebecca S. Stocker\* Terrence L. Swartz Barbara C. Trombley Jimmie O. Williams\*

#### THE DEGREE MASTER OF BASIC SCIENCE

Claudia M. Eley James M. Jackson Robert K. Littleton\*\* Robert P. Mason\*\* Garry R. Nielsen Robert L. Stamps\*\*
Wendy B. Thornton

#### THE DEGREE MASTER OF SCIENCE

Farid Akhbari, Electrical Engineering
Derryl D.J. Allman, Electrical Engineering
Jerry K. Barnett, Electrical Engineering
Michael R. Ehrlich, Electrical Engineering
Robert H. Gattis, Jr., Computer Science
Jamshid Golabi-Khoozani, Electrical Engineering\*\*
Manoochehr Golabi-Khoozani, Electrical Engineering
John W. Gregory, Electrical Engineering\*\*
Mary Lou Haag, Computer Science
Farzad Hashemi, Electrical Engineering
Keith R. Holstine, Electrical Engineering
Michael D. laeger, Computer Science\*\*

Nancy A. Levit, Computer Science\*
Amy R. McGowan, Electrical Engineering\*\*
Harold B. Meadows, Electrical Engineering\*\*
Gary V. Millsap, Computer Science
Enrique F. Ortega, Electrical Engineering
Gary W. Reneau, Computer Science\*\*
Charles W. Simmons, Applied Mathematics
Douglas R. Standish, Electrical Engineering\*\*
Edward L. Strauch, Electrical Engineering
Mark A. Taylor, Computer Science
Richard L. Woodruff, Electrical Engineering\*

#### CANDIDATES FOR COMMISSION

Second Lieutenant, United States Army

Michael W. Jackson Edward M. Ketchum Richard P. McClintock Tony L. Peterson David S. Turnbull

## HONORARY DEGREE JOANNE GREENBERG

JOANNE GREENBERG, the internationally known author of seven novels and three collections of short stories, is most famous for her 1964 best-selling novel, "I Never Promised You a Rose Garden," which, published under the pseudonym Hannah Green, was subsequently made into a major motion picture.

Her most famous work, however, was barely the beginning of a highly successful career as a writer and humanitarian. She has published eight other works of fiction including "Founder's Praise," "A Season of Delight," "The Far Side of Victory," "In This Sign," and three highly acclaimed collections of short stories.

Her writings are often a compassionate expression of concern about human pain and care for those who cannot always take care of themselves. "In This Sign," for example, was written in response to her husband's work with mental health programs for the deaf. That novel, too, was made into a film, "Love is Never Silent."

Joanne Greenberg is an extraordinary writer and scholar whose compassion for the handicapped, the underprivileged and the dispossessed has not only become a hallmark of her fiction, but also a driving force in her personal life.

For example, she has not only written about the deaf, but also helped establish mental health programs for the deaf throughout the U.S. She teaches sign language and is listed with the Colorado Registry of Interpreters of the Deaf.

A native of Brooklyn, New York, Joanne Greenberg has lived in Colorado for nearly 30 years, and has clearly established herself as one of our state's most distinguished literary artists-in-residence.

In recognition of her literary accomplishments and for her dedication, commitment and untiring efforts to support the disadvantaged, the Board of Regents is pleased to present Joanne Greenberg with the degree of Doctor of Humane Letters, *honoris causa*.

## Distinguished Service Award ROGER A. SANBORN

ROGER A. "SANDY" SANBORN, founder of Sanborn Western Camps, Colorado Outdoor Education Center, the Nature Place, and the Pikes Peak Research Station, has devoted his life to providing youth with outdoor experiences and an understanding of the world around them.

Along with his wife Laura, he established Sanborn Western Camps in 1948. Their goal was to use the outdoors as a living textbook for teaching the remarkable interconnections of life on this planet. Thousands of youth from throughout the world have since attended the camps, enjoying the excitement of the wilderness experience and heightened awareness of the natural world.

In 1967 Sandy Sanborn founded the non-profit Colorado Outdoor Education Center in a natural environment setting on 6,000 acres. Today, as a supplement to their schools' curriculum, elementary and secondary students from throughout Colorado come to the Center and discover the

educational opportunities provided through direct experience in the outdoors.

His most recent project, the Pikes Peak Research Station, fosters original research in both the natural and social sciences, and recently has made possible a stream sedimentation research project with the University of Colorado at Colorado Springs Geography Department.

Sandy Sanborn's deep concern for the well being of our fragile planet has manifested itself in a life-long commitment to outdoor education. He has been an inspiration to thousands of people who have been influenced by his innovative leadership.

Therefore, in recognition of his service to the State of Colorado and commitment to education, the Board of Regents is pleased to present the University of Colorado Distinguished Service Award to Roger A. "Sandy" Sanborn.

## Distinguished Service Award ALBERT J. TOMSIC

Albert J. Tomsic has had a long and distinguished career as a judge and legislator in Colorado, beginning his career as a public servant 35 years ago as a county attorney and later serving as an assistant district attorney in Walsenburg, Colorado.

He was elected to the Colorado House of Representatives in 1952, where he served as majority leader in 1957 and 1958, and as speaker of the House in 1961 and 1962. During his 10-year tenure, he was chair of the Rules and Finance committees and a member of the Legislative Council. He was once voted "Outstanding Legislator" by the capitol press corps.

He became district judge of the third judicial district in 1964, served as chief judge for 15 years, and was a past president of the Colorado District Judges Association. He retired from the bench March 1, 1986.

Before becoming district judge, he practiced law in Walsenberg for 14 years. Both his bachelor's and law degrees were earned at the University of Colorado.

In recognition of his outstanding achievements in public service and his contributions to the State of Colorado, the Board of Regents is pleased to present the University of Colorado Distinguished Service Award to Albert J. Tomsic.

#### RESOLUTION OF APPRECIATION TO DAVID K. SUNDERLAND

WHEREAS David K. Sunderland was elected to a statewide two-year term on the Board of Regents in 1978, and was re-elected to a statewide six-year term in 1980; and

WHEREAS as a Regent he contributed substantially to the effectiveness of the Board in that he served as a knowledgeable examiner of both the University and mandatory student fee budgets; urged credit transfer agreements with other state institutions; stressed teaching excellence; called for a review of opportunities in athletics at all levels, with the establishment of appropriate directions; pressed for a separate status for the CU-Colorado Springs College of Engineering and Applied Science; advocated a procedure to be used to facilitate the transition of multicampus schools and colleges to separate academic units if requested and when judged qualified; and

WHEREAS he also worked diligently to obtain funding for the Engineering building and to establish the Ph.D. degree in Electrical Engineering at CU-Colorado Springs; authored the resolution upgrading academic preparation for undergraduate admission to the University; proposed the enlarging of entering classes for the College of Business and the College of Engineering at CU-Boulder; and rendered valuable and knowledgeable advice in the development of

the CU-Boulder East Campus Research Park Project; and

WHEREAS David Sunderland will be particularly remembered as Chairman and therefore lodestar of the Board when the University did not sign the Memorandum of Understanding drafted by the Joint Budget Committee that included not only fiscal commitments but also new statewide mandatory admissions standards; as the consistent poser of the question "is it good for Colorado?"; and as the reminder to all of us, by his steadfast attendance at graduations at the four campuses, of the most important reason that the University exists; and

WHEREAS the Board and the University community will greatly miss the active and in-depth involvement of David and Brooke Sunderland in the events of the institution;

NOW THEREFORE BE IT RESOLVED that the Board of Regents expresses its deep appreciation to David K. Sunderland for his dedication, his conscientious service, and his many accomplishments on behalf of the University and the State of Colorado; and

BE IT FURTHER RESOLVED that he be granted the title of Regent Emeritus of the University of Colorado and be suitably honored at a May 1987 commencement.

#### JEFFREY M. WELLS 1987 LEGISLATIVE AWARD

Senator Jeff Wells is presently serving his second term in the Colorado Senate. During his tenure he has worked vigorously on behalf of higher education and the University of Colorado at Colorado Springs.

His support has taken many forms, including: increasing the funding base at UCCS, funding for capital construction, and support for the space sciences efforts of the University.

Of particular significance to the University of Colorado has been his role as a negotiator and arbitrator when critical issues in the Senate have surfaced. His personal and professional talents and skills in analyzing issues and directing decisions toward closure were acknowledged by his colleagues when they elected him to the position of Senate Majority leader in 1987.

UCCS has benefited from Senator Wells' commitment to sound and equitable decision making, clarity in direction, and his ability to set forth alternatives on behalf of his constituents and all of the citizens of Colorado.

It is appropriate, therefore, that Senator Jeffrey M. Wells be the first recipient of the University of Colorado at Colorado Springs Legislative Recognition Award for 1987.

#### THE PRESIDENTIAL CHAIN OF OFFICE

The Presidential Chain of Office was created in 1980 by Mary Sartor, M.F.A., University of Colorado, Boulder, for the inauguration of President Arnold R. Weber. The Chain was a gift to the University by Mr. and Mrs. David G. Hawthorn, Class of '24.

Colorado gold and silver are used throughout the chain to symbolize the importance of those minerals to the history of the State. The gem stones chosen also consist entirely of minerals from Colorado.

Three pendants are suspended on the chain. The back pendant is the Seal of the State of Colorado surrounded by a golden ribbon representing the golden Circle of Knowledge. The top pendant in the front, the Seal of the University of Colorado surmounted by an arch set with diamond and topaz, signifies the necessary link between the search for knowledge and its practical application to the world outside the University. The Seal is supported at the bottom by the laurel wreaths found in the Seal, emblematic of honor and success.

The bottom pendant is centered with a golden topaz indicating man's quest for knowlege. The surrounding ring is paved with fragmented cubes and diamonds which suggest fragments of knowledge with brilliant breakthroughs of understanding.

The chain surrounding these pendants symbolizes the endless but ever-changing cycle of human knowledge.

#### THE UNIVERSITY SEAL

The University of Colorado has used three different seals in its lifetime.

The present seal, adopted in 1908, depicts a classical Greek male figure seated against a pillar and holding a scroll. A burning torch framed in laurel is placed beside him. The Greek inscription means "Let your light shine."

According to Denver designer Henry Read, the classical design was used because Greek civilization "stands as the criterion of culture." The laurel symbolizes honor or success, the youth of the figure suggests the "morning of life," and the scroll represents written language.

From 1893 to 1908, a seal was used which copies Wyon's medallion, "Science Trims the Lamp of Life." The classical figure of a kneeling Greek woman was flanked by mariposa lilies, which President Baker described as "a true Colorado flower."

Before 1893, a seal was used which essentially copies the Colorado state seal. It was never adopted by the Regents.

The official seal of the University of Colorado is used only by the Regents in transmitting official business.

#### THE NORLIN CHARGE TO GRADUATES

(From the baccalaureate address by President George Norlin, of the University of Colorado, June 1935.)

"You are now certified to the world at large as alumni of the University. She is your kindly mother and you her cherished sons and daughters.

"This exercise denotes, not your severance from her, but your union with her. Commencement does not mean, as many wrongly think, the breaking of ties and the beginning of a life apart. Rather it marks your initiation in the fullest sense into fellowship of the University, as bearers of her torch, as centers of her influence, as promoters of her spirit.

"The University is not the campus, not the buildings on the campus, nor the faculties, not the students of any one time—not one of these or all of them. The University consists of all who come into and go forth from her

halls, who are touched by her influence and who carry on her spirit. Wherever you go, the University goes with you. Wherever you are at work there is the University at work.

"What the University purposes to be, what it must always strive to be, is represented on its seal, which is stamped on your diplomas—a lamp in the hands of youth. If its light shine not in you and from you, how great is the darkness! But if it shine in you, today and in the thousands before you, who can measure its power?

"With hope and faith, I welcome you into the fellowship. I bid you farewell only in the sense that I pray you may fare well. You go forth, but not from us. We remain, but not servered from you. God go with you and be with you and us."

#### ACADEMIC DRESS

The tradition of the academic costume apparently began during the twelfth or thirteenth century in the early European universities. Since the clergy composed the majority of the educated class, academic dress is an adaptation of the cope or mantle which was usually of silk or wool, and worn by church dignitaries in religious processions.

Through the years, great diversity in color and in style of cap, gown and hood developed. In 1896, the colleges and universities in the United States adopted a uniform code governing academic dress. Today, the black gown, hood, and mortar board worn by the graduates in most institutions follow this code.

While it is not apparent to the casual observer, the gowns worn by the recipients of the various degrees vary somewhat in design. The sleeves of the gown worn by the baccalaureate candidate are long and pointed, while the sleeves of the gown worn by the master's degree recipient are square at one end with a slit at the elbow. The doctor's gown has flowing sleeves with three bars of velvet, and a facing of velvet down the front of the gown.

Those who receive a master's or a doctor's degree from the University of Colorado wear hoods lined with the school colors, silver and gold. The hood worn by the doctor's candidate differs in design from that of the master's as it has side panels and is slightly longer. The velvet border of the hood indicated the degree and usually follows the same code as the color of the tassels.

The oxford cap, usually referred to as a mortar board, is black and has a long tassel which is fastened by a button on the top. Candidates for the baccalaureate degree wear the tassel pendant over the right front of the cap before the degree is conferred, then it is worn on the left side.

#### ACKNOWLEDGEMENT

Music for the commencement ceremony is provided by the Colorado Springs Concert Band.

