1988-89
Eastfield College Catalog
Dallas County Community College District

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1988-89

Eastfield College Catalog

Dallas County Community College District

Eastfield College
3737 Motley Drive
Mesquite, Texas 75150-2099

Call for information: Counseling—324-7106, Admissions—324-7100

This publication prepared by the Dallas County Community College District Office of Public Information.

Academic Calendar For 1988-89

Summer Sessions, 1988

First Summer Session: (Based on 4 day class week)

May 30 (M)	Memorial Day Holiday
June 2 (R)	Registration
June 6 (M)	Classes Begin
June 9 (R)	4th Class Day
June 10 (F)	Friday Class Meeting
June 23 (R)	Last Day to Withdraw with "W"
July 7 (R)	Final Exams
July 7 (R)	Semester Closes
July 11 (M)	Grades due in Registrar's Office at 10 a.m.

Second Summer Session: (Based on 4 day class week)

July 12 (T)	Registration
July 13 (W)	Classes Begin
July 19 (T)	4th Class Day
August 4 (R)	Last Day to Withdraw with "W"
August 16 (T)	Final Exams
August 16 (T)	Semester Closes
August 18 (R)	Grades due in Registrar's Office at 10 a.m.

Fall Semester, 1988

August 22 (M)	Faculty Reports
August 22-25 (M-R)	Registration Period (Varies by Campus)
August 26 (F)	Faculty Professional Development
August 26 (F)	Friday *Only* Classes Begin
August 27 (S)	Saturday *Only* Classes Begin
August 29 (M)	Classes Begin (M-R Classes)
September 2 (F)	No Friday *Only* Classes
September 3 (S)	No Saturday *Only* Classes
September 5 (M)	Labor Day Holiday
September 10 (S)	12th Class Day
November 3 (R)	Last Day to Withdraw with a Grade of "W"
November 24 (R)	Thanksgiving Holidays Begin
November 28 (M)	Classes Resume
December 9 (F)	Final Exams for Friday *Only* Classes
December 10 (S)	Final Exams for Saturday *Only* Classes
December 12-15 (M-R)	Final Exams for M-R Classes
December 15 (R)	Semester Closes
December 19 (M)	Grades *due* in Registrar's Office by 10 a.m.

Spring Semester, 1989

January 9 (M)	Faculty Reports
January 9-12 (M-R)	Registration Period (varies by campus)
January 13 (F)	Faculty Professional Development
January 13 (F)	Friday *Only* Classes Begin
January 14 (S)	Saturday *Only* Classes Begin
January 16 (M)	Classes Begin (M-R Classes)
January 26 (R)	12th Class Day
February 16 (R)	District Conference Day
February 17 (F)	Faculty Professional Development (TJCTA)
February 17 (F)	No Friday *Only* Classes
February 18 (S)	No Saturday *Only* Classes
March 6 (M)	Spring Break Begins
March 10 (F)	Spring Break Holiday for All Employees
March 13 (M)	Classes Resume
March 24 (F)	Religious Holidays Begin
March 27 (M)	Classes Resume
March 30 (R)	Last Day to Withdraw With a Grade of "W"
May 5 (F)	Final Exams for Friday *Only* Classes
May 6 (S)	Final Exams for Saturday *Only* Classes
May 8-11 (M-R)	Final Exams for M-R Classes
May 11 (R)	Semester Closes
May 11 (R)	Graduation
May 15 (M)	Grades Due in Registrar's Office by 10:00 a.m.

Summer Sessions, 1989

First Summer Session: (Based on 4 day class week)

May 29 (M)	Memorial Day Holiday
May 31 (W)	Registration (Richland College Only)
June 1 (R)	Registration (All Campuses)
June 5 (M)	Classes Begin
June 8 (R)	4th Class Day
June 9 (F)	Class Day
June 22 (R)	Last Day to Withdraw with a Grade of "W"
July 4 (T)	Fourth of July Holiday
July 6 (R)	Final Exams
July 6 (R)	Semester Closes
July 10 (M)	Grades Due in Registrar's Office by 10:00 a.m.

Second Summer Session: (Based on 4 day class week)

July 11 (T)	Registration (All Campuses)
July 12 (W)	Classes Begin
July 18 (T)	4th Class Day
August 3 (R)	Last Day to Withdraw With a Grade of "W"
August 15 (T)	Final Exams
August 15 (T)	Semester Closes
August 17 (R)	Grades Due in Registrar's Office by 10:00 a.m.

Dallas County Community College District
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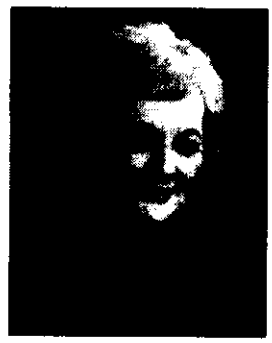
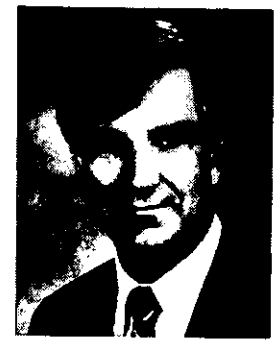


Pattie T. Powell

James W. Smith



Lawrence W. Tyree
Chancellor

Dallas County Community College District Administrators

Chancellor	Lawrence W. Tyree
Vice Chancellor of Business Affairs	Ted B. Hughes
Vice Chancellor of Educational Affairs	Jack Stone
Assistant Chancellor of Planning and Development Affairs	Bill Tucker
Executive Assistant to the Chancellor	Jackie Caswell
Associate Vice Chancellor/Educational Affairs	Rodger A. Pool
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Director of Development	Carole Shlipak
Legal Counsel	Robert Young
Consultant to the Chancellor	Nancy Armes
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Director of Planning, Research and Evaluation	Felix Aquino
Director of Public Information	Claudia Robinson
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Director of Resource Development	Bonny Franke-Hill
Director of Student and International Programs	Richard McCrary
Director of Technical Services	Paul Dumont

EASTFIELD COLLEGE

Eastfield College serves the eastern part of Dallas County, including East Dallas, Garland and Mesquite. Sometimes known as the "Educational Village" because of its unique architecture, it is located on 244 acres at the intersection of Interstate 30 and Motley Drive in Mesquite. Eastfield began operation in 1970 and has continually strived to assess the educational and cultural needs of students and the community in order to provide the finest in educational services.

Eastfield provides a full range of academic transfer programs balanced with technical/occupational programs that are designed to equip students for rewarding careers in Metroplex businesses and industries. In addition, thousands of people each semester find rewarding growth opportunities through the extensive continuing education course offerings.

The Campus

The Eastfield campus rises impressively from the plains of eastern Dallas County and is the scene of many seasonal athletic events held on its beautiful grass-covered playing fields.

Functional building clusters give students easy access to classrooms and labs and the overall aesthetic effect has earned Eastfield several architectural awards of excellence. The careful landscape planning includes many trees, shrubs and terraced areas as well as a beautiful outdoor swimming pool. In addition, the campus boasts an outstanding Performance Hall which serves the community for a variety of fine arts events.

Accreditation

Eastfield College is a member of:
The Southern Association of Colleges and Schools

Institutional Memberships

The American Association of Community and Junior Colleges
Southern Association of Junior Colleges
Association of Texas Colleges and Universities
The League for Innovation in the Community College

Eastfield is recognized and sanctioned by the Coordinating Board of the Texas College and University System and the Texas Education Agency, and is an Affirmative Action Equal Opportunity Institution.

EASTFIELD COLLEGE ADMINISTRATION

President	Justus D. Sundermann	324-7600
Vice President of Instruction	Jerry Henson	324-7196
Vice President of Student Development	Felix A. Zamora	324-7610
Vice President of Business Services	Victor J. Rizzo	324-7603
Dean, Career and Continuing Education	Lu McClellen	324-7198
Dean, Learning Resources	Beverly Negri	324-7169
Assoc. Dean, Continuing Education	Carolyn Stock	324-7113
Director of Counseling	David Amidon	324-7106
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Director of Student Programs & Resources	Lynn Newman	324-7185
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Coordinator, Services for Disabled Students	Reva Rattan	342-7032

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Communications and Developmental Studies	Michael Burke	324-7124
Engineering, Technology & Computer Science	Edward Ruggiero	324-7143
Humanities	John Stewart	324-7132
Physical Education and Science	Wilbur Dennis	324-7140
Social Science and Technology	Richard Cinclair	324-7156

EASTFIELD COLLEGE FACULTY AND STAFF

Allison, Joe F. ..... Mathematics
Stephen F. Austin State College, B.S.; Texas A&M Univ. M.Ed., Ph.D.

Amidon, David C. Jr. ..... Director of Counseling
Univ. of Houston, B.A., M.Ed.; Further study: East Texas State Univ., Univ. of Texas at Austin

Arnold, Jackie ..... Auto Body
Study, East Texas State Univ., Paris Junior College, General Motors

Attner, Donnelle K. ..... Mid-Management
Univ. of North Carolina at Chapel Hill, B.A., Univ. of Oklahoma, M.Ed.

Bailey, Kenneth ..... Graphic Arts

Ballance, Donnine
Baylor Univ., B.A.; Texas Woman's Univ., M.Ed.

Balvin, Kenneth ..... Physical Education
Springfield College, B.S., M.S.
Further study: Ohio State Univ., Azusa Pacific College

Baynham, James D. ..... Division Chairman, Business and Mathematics
Eastfield College, A.A.S.; Abilene Christian Univ., B.B.A., M.S.

Bennett, James ..... Developmental Mathematics
Univ. of Texas at Austin, B.A.; Univ. of Houston, M.S.;
Further study: East Texas State Univ.

Blair, Oscar T. ..... Physical Education
North Texas State Univ., B.S., M.S.:
Further study: North Texas State Univ., Texas Woman's Univ., East Texas State Univ.

Boldt, Chris E. ..... Mathematics
Texas Tech Univ., B.B.A.; Texas Christian Univ., M.S.;
East Texas State Univ., Ed.D.: Further study: Texas Christian Univ.,
North Texas State Univ., Univ. of Texas at Austin, Syracuse Univ.,
Univ. of Colorado, Univ. of Hawaii, Stanford Univ., Ohio Univ.

Bowers, James ..... Developmental Reading
Arizona State Univ., B.A., M.A.

Bradshaw, Curt ..... Jazz
Northern Iowa, B.S.; North Texas State Univ., M.M.

Bradshaw, Patti J. ..... Child Development, Dir. of Co-op Ed.
North Texas State Univ., B.S., M.Ed.

Brown, Beverlye ..... English
Birmingham Southern College, B.S.; Univ. of Alabama, M.A.;
Further study: East Texas State Univ., North Texas State Univ.

Brown, Emmett D. ..... Counselor
North Texas State Univ., B.A., M.Ed.: Further study: El Centro College,
Prairie View A&M, Naval School of Photography

Brumbach, Virginia ..... English
Cumberland College, A.A.; Western Kentucky State Univ., B.A.;
Baylor Univ., M.A.; North Texas State Univ., Ed.D.; Post-doctoral,
Texas Univ., North Texas State Univ., Texas Christian Univ.

Burden, Jacqueline ..... History
State Univ. of New York College at Buffalo, B.A.;
Univ. of Michigan, M.A.; Further study: Univ. of Pittsburgh

Burke, Michael ... Division Chairman, Communications/Developmental Studies
Univ. of Houston, B.A., M.A.; Univ. of Texas at Austin, Ph.D.

Carandang, Amado I. ..... Philosophy
Kings College, B.A.; Univ. of Notre Dame, M.A., Ph.D.; Further study:
California Institute of Asian Studies, San Francisco Brock Univ., Ontario

Carpenter, Robert W. ..... Accounting
North Texas State Univ., B.B.A., M.B.A.; C.P.A. State of Texas;
Further study: North Texas State Univ.,
Western State College of Colorado

Carr, Laura V. ..... Training Paraprofessionals for the Deaf Program
Illinois State Univ., B.S.; New York Univ., M.A.;
Further study: East Texas State Univ.

Carter, James Damon ..... Automotive Technology
Southern Methodist Univ., NIASE;
Further study: General Motors Training Center

Cate, Franklin M. ..... History
East Texas State Univ., B.A.; Univ. of Virginia, M.A.;
Further study: Univ. of Texas, Vanderbilt Univ.

Christian, Allen L. ..... Mathematics
Arlington State College, B.S.; East Texas State Univ., M.S.;
North Texas State Univ., Ed.D.

Cinclair, Richard ..... Division Chairman, Social Science & Technology
Northern State College, B.S.; Univ. of Wisconsin, M.S.;
Ball State Univ., Ph.D.

Clark, George ..... Director of Physical Plant
USAF, Colorado, B.S.; Southern Methodist Univ., M.S.

Clarke, Curtis R. ..... Economics
Southern Methodist Univ., B.B.A., M.B.A.;
Further study: Southern Methodist Univ., North Texas State Univ.,
Univ. of Texas at Arlington

Clayton, Glenn N., Jr. ..... English
North Texas State Univ., B.A., M.A.;
Further study: East Texas State Univ., North Texas State Univ.

Cook, Sharon ..... Director of Public Information
Baylor Univ., B.A.

Cronin, Emma ..... Director of Library
Univ. of Oklahoma, B.A.; North Texas State Univ., M.L.S.;
Further study: East Texas State Univ.

Dale, Charles W. ..... Electronics
Southeastern State College of Oklahoma, B.S.;
Southern Illinois Univ., M.S.; East Texas State Univ., Ed.D.

Davis, Vivian ..... English
Ball State Teachers College, A.B.; Univ. of Chicago, M.A.T.;
Northwestern Univ., Ph.D.; Texas Woman's Univ., M.Ed.

Dennis, Vivian A. ..... Mathematics
East Texas State Univ., B.A., M.S., Ed.D.;
Further study: North Texas State Univ.

Dennis, Wilbur ..... Division Chairman, Physical Education and Science
North Texas State Univ., B.S., M.S., M.Ed.;
Further study: East Texas State Univ.

DesPlas, Ed ..... Director of Business Operations
Univ. of Texas, Dallas, B.S.

DiPietro, Lawrence N. ..... Learning Resource Center
Rutgers Univ., B.A.; Drexel Univ., M.S.L.;
Further study: North Texas State Univ.

Drake, Helan N. ..... English
Southern Methodist Univ., B.A.; North Texas State Univ., M.A.;
Further study: East Texas State Univ.

Erwin, Robert J. ..... Theatre
Univ. of South Florida, B.A.; Univ. of Alberta, M.F.A.;
Further study: Paul Mann's Acting Workshop, New York City

Etheredge, John W. ..... Counselor
Baylor Univ., B.A., M.S.; Further study: Univ. of Houston,
Baylor Univ., Texas A&M Univ.

Ewing, George E. ..... Drafting
North Texas State Univ., B.S., M.S.; Univ. of Arkansas, Ed.D.

Felder, Bob ..... Economics
Sam Houston State Univ., B.A., M.A.

Flickner, Robert E. ..... Physical Education
Bethel College, B.S.; Kansas Univ., M.S.

Forrest, Mary L. ..... Speech
North Texas State Univ., B.A.; Southern Methodist Univ., M.F.A.;
North Texas State Univ., Ed.D.

Franke, Marvin H. ..... Air Conditioning and Refrigeration
Juneau County Teachers College, A.A.; Milwaukee School of
Engineering, A.S.

Gammage Judie K. ..... Computer Information Systems
Southern Methodist Univ., B.A., M.L.A.; North Texas State Univ., Ph.D.

Gormly, Donna A. ..... English
Texas Woman's Univ., B.A. M.A.; Further study: Texas Christian Univ.

Hager, Colleen T. ..... Program Director, Continuing Education
Southern Methodist Univ., B.F.A.; Further study: North Texas State Univ.

Hamilton, Hance H. ..... Chemistry
Texas A&M Univ., B.S., Ph.D.

Hegar, E. Alylene ..... Psychology
Texas Tech Univ., B.A.; North Texas State Univ., M.Ed., Ed.D.

Helton, Charles E. ..... Director of Appraisal Center/CAI Lab
East Texas State Univ., B.S.; Further study: East Texas State Univ.

Henrickson, Marja ..... Spanish
El Centro College, A.A.; North Texas State Univ., B.A., M.A.;
Further study: East Texas State Univ., Texas Tech Univ.

Henry, Robert ..... Physical Education
Southern Methodist Univ., B.A.; Univ. of Illinois, M.S.;
Further study: Univ. of Texas, North Texas State Univ.,
East Texas State Univ., Texas Tech Univ., Texas A&M Univ.

Henson, Jerry C. ..... Vice President of Instruction
Hardin-Simmons Univ., B.A.;
Southwestern Baptist Theological Seminary, B.D.; Baylor Univ., Ph.D.

Herd, Clarence W. ..... Automotive Technology
East Texas State Univ., B.A.; Further study: East Texas State Univ.

Hill, H. Raybum ..... Government
Paris Junior College, A.A.; East Texas State Univ., B.S., M.S.;
Further study: Univ. of Oklahoma, East Texas State Univ.

Hinkle, John L. ..... English
Baylor Univ., B.A.; East Texas State Univ., M.A.;
Further study: Baylor Univ., East Texas State Univ.

Holloway, Ralph ..... Director of Telecommunications
Amarillo College, A.A.; Hardin-Simmons Univ., B.A.;
North Texas State Univ., M.L.S.; Further study: Univ. of Texas at Austin,
East Texas State Univ.

Holman, Morris H. ..... History
East Texas State Univ., B.A., M.A.;
Dallas Theological Seminary, M.A.B.S.;
Further study: North Texas State Univ.

Hughes, W. Tim, Jr. ..... History, Government
Henderson State Teachers College, B.S.E.;
George Peabody College for Teachers, M.A.;
Further study: Baylor Univ., East Texas State Univ.,
Univ. of the Americas, Texas A&M Univ.

Hutchins, Michael E. ..... Drafting
East Texas State Univ., B.S., M.S., Ed.D.

Jeffus, Larry ..... Air Conditioning and Refrigeration
Hiwassee College, A.A.; Univ. of Tennessee, B.S.;
Further study: Univ. of Tennessee

Jessen, Joel A. ..... Counselor
Univ. of Iowa, B.A., M.A.

John, Margaret ..... Counselor
Austin College, B.A.; East Texas State Univ., M.A.

Jordan, M. Diane ..... English
North Texas State Univ., B.A.; California State College at Fullerton, M.A.;
Univ. of Texas at Austin, Ph.D.

Kennedy, Pat ..... Child Development
North Texas State Univ., B.A., M.S.

Kirkpatrick, James Michael ..... Drafting
Oklahoma City Univ., B.I.A.; North Texas State Univ., M.Ed., Ed.D.

Knight, Carl E. ..... Biology
Michigan State Univ., B.S., M.S., Ph.D.

Kozlowski, Gerald ..... Director of Instructional Resources
Eastfield College, A.A.S.; North Texas State Univ., B.A.;
East Texas State Univ., M.S.; Further study: North Texas State Univ.

Latham, Jim ..... Auto Body
East Texas State Univ., B.A.; Further study: East Texas State Univ.,
Texas A&M Univ.

Lopez, Frank ..... Mathematics
Southwest Texas State College, B.S.; Univ. of Texas at Austin, M.A.;
Further study: Texas A&M Univ.

Love, James L. ..... Electronics
Michigan Tech. Univ., B.S.; Further study: Wayne State Univ.,
Colorado State Univ., Univ. of Minnesota

Lucky, Harrell C. ..... Music
Bethany Nazarene College, B.M.Ed.;
Southwestern Baptist Seminary, M.C., M.C.M., D.M.E.;
Further study: Academy of Music, Vienna, Austria

Madriguera, Enric F. ..... Music
Royal Conservatory of Music, Madrid; Spain;
Oscar Espla Conservatory of Music, Alicante, Spain; East Carolina Univ.;
Univ. of Texas at Dallas, M.A.

Massey, Aaron W. ..... Counselor
Southwest Texas State, B.S.; East Texas State Univ., M.S.;
Further study: East Texas State Univ., North Texas State Univ.,
Abilene Christian Univ., Texas A&M Univ.

Mathus, Don L. ..... Physical Education
South Plains College, A.A.; Texas Tech Univ., B.S., M.S.;
Further study: North Texas State Univ.

Maxwell, Rick ..... Art
Univ. of Dallas, B.A.; Southern Methodist Univ., M.F.A.

McClellen, Lu ..... Dean, Career and Continuing Education
Baylor Univ., B.A.; East Texas State Univ., M.Ed., Ed.D.

McClung, Ray O. ..... Counselor, Psychology
Texas A&M Univ., B.S.; Univ. of Illinois, M.S.;
North Texas State Univ., Ph.D.

McCoy, David L. ..... Photography
Southeastern State College of Oklahoma, B.A.;
East Texas State Univ., M.S., Ph.D.

McMahon, Jerry D. ..... Chemistry
Texas Tech Univ., B.S.; Princeton Univ., M.A.

McNeill, Earldene ..... Child Development
North Texas State Univ., B.S.; Southern Methodist Univ., M.L.A.

Milton, Furman D. ..... Director of Financial Aid and Placement
Troy State Univ., B.S.; East Texas State Univ., M.Ed., Ph.D.

Moorhead, Michael ..... English
Texas Tech Univ., B.A., M.A.; Further study: Texas Tech Univ.

Mouledous, Pierrette M. ..... Piano
Performer's Certificate, Ecole Normale de Musique;
Southern Methodist Univ., M.M.

Negri, Beverly ..... Dean, Educational Resources
Eastfield College, A.A.S.; Abilene Christian Univ., B.S.;
Abilene Christian Univ., M.B. HR

Nell, Mary Lou ..... English
Texas Christian Univ., B.A.; Univ. of Dallas, M.A.;
Further study: Univ. of Dallas

Newman, Lynn A. ..... Director of Student Programs and Resources
Southern Methodist Univ., B.A.S., M.S.

Palmer, Ursula ..... Training Paraprofessionals for the Deaf Program
Salve Regina College, B.A.; Univ. of Arizona, M.S.;
Further study: Univ. of Arizona

Penney, Jane A. ..... Sociology/Human Resources
East Texas State Univ., B.S., M.S.

Phillips, Jim G. ..... Counselor
East Texas State Univ., B.A., M.A., Ph.D.;
Further study: North Texas State Univ.

Pitt, J. Michael ..... Physics
Southern Methodist Univ., B.S.E.E.; Univ. of Texas at Austin, Ph.D.

Pleasant, P. Leon, Jr. ..... Accounting
North Texas State Univ., B.B.A.; East Texas State Univ., M.B.A.;
Further study: East Texas State Univ.

Preston, David E. ..... Computer Information Systems
East Texas State Univ., B.S., M.S.; North Texas State Univ., Ed.D.

Priest, Andy J. ..... Automotive Technology
North Texas State Univ., B.S.; Southern Methodist Univ., M.L.A.;
Further study: East Texas State Univ.

Privette, Parnell ..... Electronics
Univ. of Texas at Austin, B.S.E.E.

Purdy, Earlyne ..... Secretarial Science
North Texas State Univ., B.S.; East Texas State Univ., M.S.

Rawlins, John Clayton ..... Electronics
Southern Methodist Univ., B.S.E.E.; East Texas State Univ., M.S.Ed.

Reeves, Ed R. ..... Biology
West Texas Univ., B.S.; East Texas State Univ., M.S.;
Further study: Texas Tech Univ.

Richardson, Douglas M. ..... Mid Management
North Texas State Univ., B.B.A., M.B.A.;
Further study: East Texas State Univ.

Rizzo, Victor J. ..... Vice President of Business Services
Southwest Texas State Univ., B.B.A., M.B.A.;
North Texas State Univ., Ph.D.

Robinson, Yvonne ..... Secretarial Science
D.C. Teachers College, B.S.; North Texas State Univ., M.B.E.;
East Texas State Univ., Ed.D.

Ruggiero, Edward ..... Division Chairman, Engineer., Tech. and Comp. Science
Fordham Univ., B.S.; City Univ. of New York, M.S.;
Further study: City Univ. of New York, Univ. of Texas at Dallas

St. Clair, Anita J. ..... Secretarial Science
Abilene Christian College, B.S.E.; North Texas State Univ., M.B.E.;
Further study: Southern Methodist Univ., North Texas State Univ.,
East Texas State Univ.

Schmitt, Allan B. ..... Electronics
Univ. of Texas at Austin, B.E.S.; M.S.E.E., Ph.D.E.E.

Schrup, Sara J. ..... Art
Art Institute of Chicago, B.F.A.; Univ. of Dallas, M.A., M.F.A.

Scott, Ray R. ..... Physics
North Texas State Univ., B.A.; East Texas State Univ., M.S.;
Purdue Univ., M.S.; Further study: East Texas State Univ.

Sharp, Robert G. ..... American History
Whitworth College, B.A.; Purdue Univ., M.A.;
Further study: Univ. of Denver, Univ. of New Mexico

Sherrill, Theodore B., III ..... Biology
Lamar State Univ., B.S.; East Texas State Univ., M.S.;
Further study: Southern Methodist Univ., North Texas State Univ.,
East Texas State Univ.

Slovak, Pauline A. ..... English
Univ. of Arkansas at Monticello, B.S.E.;
East Texas State Univ., M.A., Ed.D.

Smith, Maryle Bea ..... Business
North Texas State Univ., B.B.A., M.B.E.;
Further study: East Texas State Univ.

Solganick, Harvey ..... English, German Philosophy
North Texas State Univ., B.A., M.Ed.; Southern Methodist Univ., M.L.A.;
Further study: Univ. of Texas at Arlington,
Univ. of Dallas, Univ. of Texas at Dallas,
Univ. of California at Santa Barbara, East Texas State Univ.,
Goethe Institute at Lueneberg, Univ. of London

Stewart, John D. ..... Division Chairman, Humanities
East Texas State Univ., B.M.Ed., M.Ed.; Indiana Univ., Ph.D.

Stock, Carolyn ..... Associate Dean of Continuing Education
Ohio Univ., B.A.

Stover, Harryette B. ..... English
Southern Methodist Univ., B.A., M.A.;
Further study: North Texas State Univ., East Texas State Univ.

Streeter, C. Allen ..... Engineering
Louisiana State Univ., B.S., M.S.;
Further study: Southern Methodist Univ.;
Professional Engineer Registration

Streng, Adolph C., Jr. ..... Psychology
Texas Lutheran College, B.A.; Wartburg Seminary, M.Div.;
The University of Chicago, M.A.; Roosevelt Univ., M.A.;
Further study: Univ. of Maine, Iowa State Univ., Univ. of Colorado

Sundermann, Justus D. ..... President
Ohio State Univ., B.S.; Univ. of Cincinnati, Ed.M., Ed.D.

Swindling, James A. ..... Developmental Reading
Daytona Beach Community College, A.A.; Florida State Univ., B.A., M.S.;
Further study: Univ. of Nevada, East Texas State Univ.

Thorne, John M. ..... Accounting
East Texas State Univ., B.B.A., M.B.A.; Further study: Univ. of Oklahoma

Thornton, Carolyn ..... Counselor
Univ. of Cincinnati, B.A.; East Texas State Univ., M.S.

Tinsley, Sammy J. ..... Developmental Mathematics
Ouachita Baptist Univ., B.A.; Univ. of Mississippi, M.S., Ph.D.

Trout, Bobbie ..... Director of Admissions and Registrar
Univ. of Texas at Austin, B.A.; Univ. of Texas at Dallas, M.A.

Weaver, Gayle M. ..... Biology
East Texas State Univ., B.S., M.S.; Univ. of Oklahoma, M.S.;
East Texas State Univ., Ph.D.;
Further study: Oak Ridge Institute of Nuclear Studies

Whisnant, Robert A., Jr. ..... Humanities
Univ. of South Florida, B.A., M.A.; Further study: East Texas State Univ.

Williams, Jerome ..... Biology
East Texas State Univ., B.S., M.S.; Further study: East Texas State Univ.,
North Texas State Univ.

Winn, Jerry M. ..... Developmental Mathematics
Oklahoma Univ., B.S.E.E.; Southern Methodist Univ., M.S.

Wisdom, Hardy ..... Auto Body Technology
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I. GENERAL INFORMATION

History of the Dallas County Community College District

The Dallas County Community College District is comprised of seven colleges located strategically throughout Dallas County. Together the colleges enroll approximately 75,000 students per semester and employ over 1,900 full-time faculty and staff members.

The growth of the District into an educational system with such impact was not by chance. In May, 1965, voters created the Dallas County Junior College District and approved a $41.5 million bond issue to finance it. The next year the District's first college, El Centro, began operation in downtown Dallas. Eastfield College and Mountain View College enrolled their first students in 1970, and the plans for a multi-campus district became a reality. Richland College became the District's fourth college in 1972.

The voters of Dallas County approved the sale of an additional $85 million in bonds in September, 1972. This step provided for expansion of the four existing colleges and the construction of three more colleges. A key part of the expansion program was the remodeling and enlarging of El Centro College, a project completed in 1979. Construction of new facilities resulted in the opening of Cedar Valley College and North Lake College in 1977. Brookhaven College, the final campus in the seven-college master plan, opened in 1978.

District Philosophy And Goals

Since 1972, the District has been known as the Dallas County Community College District. The name shows that the District has outgrown the term "junior college." The name also reflects the District's philosophy. The colleges truly are community institutions, meeting the varied educational needs of the growing Dallas County region. The primary goal of the District and its colleges is to help students of all ages achieve effective living and responsible citizenship in a fast-changing region, state, nation, and world. Each college is therefore committed to providing a broad range of educational programs for the people it serves.

The needs, abilities, and goals of each student are considered important. The focus is on creating an educational program for the individual rather than squeezing or stretching the individual to fit an "educational mold."

The District therefore has a place for different kinds of students. There is a place for the young person setting forth toward a degree in medicine, and a place for the adult delving into an interesting hobby to enrich leisure hours. There is a place for the person preparing to enter a trade or technical field with a year or two of studies, and a place for the employed individual wanting to improve occupational skills. There is a place for the very bright high school student ready to begin college work in advance of high school graduation, and a place for the high school dropout who now sees the need for education in today's complex society. In short, there is a place for everyone.

How do the colleges meet the educational needs of such a varied family? The answer is found in four categories of programs:

1. For the student working toward a bachelor's or higher degree, the colleges offer a wide range of first-year and second-year courses which transfer to senior colleges and universities.
2. For the student seeking a meaningful job, the colleges offer one-year and two-year programs in technical and occupational fields.
3. For the employed person wishing to improve job skills or to move into a new job, the colleges offer credit and non-credit adult educational courses.
4. For the person who simply wants to make life a little more interesting, the colleges offer community service programs on cultural, civic and other topics.

Additional programs are available for the high school student, dropout, and others with special needs. The colleges help each student design the educational program that best meets individual needs. Every student is offered intensive counseling to define goals and identify abilities. Continued guidance is available throughout the student's college career in case goals and plans change. This emphasis on counseling, rare for some institutions, is routine at all District colleges.

District Responsibilities

To carry out the District philosophy, the colleges obviously must offer a wide range of programs and courses, including guidance services. These programs and courses must help each individual attain a high level of technical competence and a high level of cultural, intellectual, and social development. In addition, high professional standards for the academic staff must be maintained within a framework prescribed by the Board of Trustees. At the same time, the program and organization of each college must make maximum use of faculty and facilities.

The colleges have a basic responsibility to provide educational and cultural leadership to the community. They must be sensitive to changing community needs and adapt readily to those needs. Individuals capable of continuing their educational development should be given the opportunity to improve their skills. Finally, to continue to meet its responsibilities in changing times, the college system must guard against stagnation. Creativity and flexibility are therefore fostered at the District level and on each campus.

League for Innovation

The Dallas County Community College District is a member of the League for Innovation in the Community College. The League is composed of 19 outstanding community college districts throughout the nation. Its purpose is to encourage innovative experimentation and the continuing development of the community college movement in America. Membership commits the District to research, evaluation, and cooperation with other community college districts. The goal is to serve the community with the best educational program and the fullest use of resources.

Equal Educational And Employment Opportunity Policy

Dallas County Community College District is committed to providing equal educational and employment opportunity regardless of sex, marital or parental status, race, color, religion, age, national origin, or disability. The District provides equal opportunity in accord with federal and state laws. Equal educational opportunity includes admission, recruitment, extra-curricular programs and activities, access to course offerings, counseling and testing, financial aid, employment, health and insurance services, and athletics. Existing administrative procedures of the College are used to handle student grievances. When a student believes a condition of the College is unfair or discriminatory, the student can appeal to the administrator in charge of that area. Appeals to high administrative authority are considered on the merits of the case.

Family Educational Rights And Privacy Act Of 1974

In compliance with the Family Educational Rights and Privacy Act of 1974, the College may release information classified as "directory information" to the general public without the written consent of the student. Directory information includes: (1) student name, (2) student address, (3) telephone number, (4) dates of attendance, (5) educational institution most recently attended, and (6) other information, including major field of study and degrees and awards received.

A student may request that all or any part of the directory information be withheld from the public by giving written notice to the Registrar's Office during the first 12 class days of a fall or spring semester or the first four class days of a summer session. If no request is filed, information is released upon inquiry. No telephone inquiries are acknowledged; all requests must be made in person. No transcript or academic record is released without written consent from the student stating the information to be given, except as specified by law.

Student Consumer Information Services

Pursuant to the Education Amendment of 1980, Public Law 96-374, the College provides all students with information about its academic programs and financial aid available to students.

Standard Of Conduct

The college student is considered a responsible adult. The student's enrollment indicates acceptance of the standards of conduct published in this catalog.

If you are unable to complete the course (or courses) for which you have registered, it is your responsibility to withdraw formally from the course (or courses). Failure to do so will result in your receiving a performance grade, usually a grade of "F".

II. IMPORTANT TERMS

Academic advisor: A member of the college staff who assists students in planning appropriate academic programs.

Add: During any single semester, to enroll in additional course(s) after registration.

Admission: Formal application and acceptance as a credit student. A person wishing to enroll must complete an application, be accepted, and receive a letter of acceptance from the Registrar before registering.

Audit: Enrollment in a credit program in a course without receiving academic credit.

Catalog: The book containing course descriptions, degree plans, and general information.

Class Schedule: The list of courses offered for a specific semester. Names of teachers, days, times, location, fees and registration instructions are included.

Common Learning: "General Education" as defined by the Dallas County Community College District. Common Learning courses contain learning experiences which provide knowledge and skills necessary for living well and functioning competently in rapidly changing local, state, national, and world communities.

Concurrent enrollment: (a) Enrollment by the same student in two different DCCCD colleges at the same time; (b) Enrollment by a high school senior in one of the DCCCD colleges while still enrolled in high school; (c) Enrollment by a student in two related courses in the same semester; (d) Enrollment in both a DCCCD institution and a four-year institution at the same time; (e) Enrollment in both credit and Continuing Education courses at the same time.

Course load: The number of hours or courses in which a student is enrolled in any given semester.

Credit: The numerical value assigned to a course (see "CREDIT HOURS/SEMESTER HOURS".)

Credit Hours/Semester Hours: The unit of credit earned for course work. Each college course is worth a certain number of credit or semester hours. This number is determined by the type of class it is and the number of hours per week it meets. For example, a 3 credit hour class (English, History, etc.) meets 3 hours per week during the fall/spring semesters; a 4 credit hour class (science, languages, etc.) meets 6 hours. Check this catalog or class schedule for the value of any course you wish to take.

Credit/non-credit: Credit classes are those which award academic credit and may apply toward a degree. Non-credit classes do not apply toward a degree and are usually offered through Continuing Education.

Campus class schedule: A booklet which is published prior to each semester listing classes, sections, dates, times, instructors' names, and meeting places and which is used by students to prepare their personal class schedules each semester.

Developmental Studies Courses: Courses which provide prerequisite skills in reading, writing, and mathematics. Because of the nature of these courses, the credit earned will not count toward graduation requirements.

Drop: The act of officially withdrawing from a particular course without penalty before a specified date. See calendar in this catalog for "Last Day to Withdraw." It is the student's responsibility to drop a course by the date published.

Early Registration: A method of selecting and reserving courses for subsequent semesters. Consult with an advisor prior to going to early registration.

Electives: Courses which do not count toward major but are required for most college degrees. Electives are selected for personal interest, skill development or to increase one's knowledge or understanding. Consult with an advisor before deciding upon electives.

Fee: A charge which the college requires for services in addition to tuition charges.

Flexible-entry course: A course beginning and ending on dates which are different from the regular semester. This is also referred to as "flex-entry" or "short semester registration". Consult the campus class schedule for further information.

Former Student: One who has attended a DCCCD college in the past but not during the previous long semester.

Full-time student: A student who is enrolled in at least 12 credit hours during a semester or for 6 credit hours during a summer session.

GPA: Grade Point Average. For further explanation, see catalog section entitled "Scholastic Standards."

Grade Points: See catalog section entitled "Scholastic Standards."

Grades: See catalog section entitled "Scholastic Standards."

Lab hours: The number of hours a student spends each week in a laboratory or other learning environment.

Lecture hours: The number of hours a student spends each week in a classroom other than a laboratory.

Major: The subject or field of study in which the student plans to specialize. For example, one "majors" in Automotive Technology, Business, etc.

Part-time student: A student who is enrolled for less than 12 credit hours during a semester or less than 6 credit hours in a summer session.

Performance grade: A grade of A, B, C, D, or F. This does not include the grades of W, I, or WX. See catalog section on "Academic Information" for more on grades and grade point averages.

Prerequisite: A requirement which must be met BEFORE enrolling for a specific course. For example, the prerequisite for ENGLISH 102 is the successful completion of ENGLISH 101. A prerequisite may be another

course (high school or college), an appropriate assessment score, or permission of the instructor.

Probation: A warning for a student whose academic work or behavior is unsatisfactory. Students on academic probation may be suspended if their academic performance does not improve.

Registration: The official process for enrolling in courses. This involves selecting classes with the help of an advisor, completing all registration forms and paying fees. Check the Class Schedule for registration dates.

Section: A number indicating day/evening, hour, room number, and name of instructor for a particular course. For example, the section number differentiates among the various classes of English 101.

Semester: A term denoting the length of time a student is enrolled in a specific course. For example, there are two long semesters (Fall and Spring) which last approximately 16 weeks. There are two summer sessions or "semesters" (Summer I and Summer II) which last approximately 5½ weeks.

Skills for Living: Skills needed for living well with oneself, others, and changing environments. Skills for Living are discussed and learned throughout the curriculum and provide basic goals for all Common Learning courses.

Technical/occupational courses: Courses which lead to a certificate or two-year degree in a technical or occupational program. These courses are designed to aid the student in developing entry-level skills to be utilized in the job market. Consult an advisor regarding transferability if you plan to attend a four-year institution.

Telecourses: Courses providing flexibility and convenience for students seeking college credit with minimum campus visits. Students watch the course television programs at home on regular broadcasts or cablecasts, complete the study guide and reading assignments, take tests on campus, and attend optional discussion meetings. Instructors are available during regular office hours or via telephone when assistance is needed.

Transfer courses: Courses which are designed to transfer to other colleges and universities. Students need to consult with an advisor or counselor about the transferability of specific courses. Because a course will transfer does not

mean it will apply toward a specific major or degree at a four-year college or university.

Transcript: An official copy of a student's academic record which can be obtained through the Admissions Office. An *official* transcript must have the seal of the college affixed and the signature of the Registrar.

Withdrawal: The act of terminating enrollment. A student withdrawing must go through a formal procedure. It is the student's responsibility to withdraw officially by the appropriate date. See the calendar in this catalog or the Class Schedule for the "Last Day to Withdraw."

III. ADMISSIONS AND REGISTRATION

General Admissions Policy

The College has an "open door" admissions policy. It insures that all persons who can profit from post-secondary education have an opportunity to enroll. The College requires certain assessment procedures for use in course placement prior to admission to a certificate or degree program, but the assessment is not used to determine admission.

Admission Requirements

Documentary evidence of Texas residency must be provided by all applicants. This evidence must be submitted with the application for admission and must prove twelve (12) months of Texas residency immediately prior to the semester of enrollment. Failure to provide evidence will result in an applicant being classified as a nonresident for tuition/fee purposes. Contact the Admissions Office for specific information detailing required documentation.

Beginning Freshmen

Students enrolling in college for the first time who fit one of the following categories may apply for admission:

a. Graduates from an accredited high school or those who have earned a General Education Diploma (G.E.D.), who are 18 years of age or older, and whose high school class has graduated.

b. Graduates of an unaccredited high school who are 18 years of age or older.

c. Persons who do not hold a high school diploma or G.E.D. (but who are 18 years of age or older and whose high school class has graduated) may be admitted by giving evidence of an ability to profit from college instruction. Such admission will be on a probationary basis.

d. High school seniors recommended by their high school principal. The College admits a limited number of students in this category. The students are concurrently enrolled for a maximum of six hours of special study each semester, as long as the combined high school and college class load does not exceed sixteen (16) semester hours. (Each high school course is normally counted as the equivalent of one three-hour course.) Students must continue to make normal progress toward high school graduation.

Transfer Students

Transfer applicants are considered for admission on the basis of their previous college records. Academic standing for transfer applicants is determined by the Registrar's Office according to standards established by the College. Students on scholastic or disciplinary suspension from another institution must petition the Committee on Admissions and Academic Relations for special approval. Contact the Admissions Office for further information.

Former Students

Students formerly enrolled in the Dallas County Community College District must submit an application for readmission to any District college. Students with unsettled financial debts at any District college will not be readmitted.

Non-Credit Students

Students enrolling for non-credit courses apply through the Office of Career and Continuing Education.

International Students

The College is authorized under federal law to enroll non-immigrant alien students. International students are not admitted, however, until all admissions requirements are complete. International students must:

a. complete a personal interview with the international student counselor and receive approval from the college administration,

b. present TOEFL (Test of English as a Foreign Language) test scores of 525 or higher and take the DCCCD assessment tests,

c. be proficient in English and provide a letter in their own handwriting indicating educational and vocational plans,

d. show evidence of sufficient financial support for the academic year by submitting an I-134 (Affidavit of support) Immigration and Naturalization Service document,

e. provide written proof of negative tuberculin skin test or chest x-ray, polio immunization if applicant is under nineteen years of age, measles and rubella vaccines taken since January 1, 1968, and diphtheria/tetanus injections taken within the last ten years.

f. fulfill all admission requirements for international students at least 30 days prior to registration,

g. enroll as a full-time student (minimum of 12 credit hours),

h. supply official transcripts for all previous academic work with a minimum "C" average.

In addition to the requirements stated above, international students wishing to transfer from another U.S. higher education institution must also:

1. Present documentation indicating "bona fide" non-immigrant status as an F-1 or M-1 student.
2. Have pursued a full course of study at the institution last authorized to attend by I.N.S.
3. Present official transcripts verifying that the student:
   a. Was "in-status" for the term immediately preceding this transfer, and
   b. Has a minimum GPA of 2.00 in all college work attempted.

Contact the Admissions Office for information.

Application and Admission Procedures

Applications may be submitted any time prior to registration. Earlier application is desirable because the student's place in registration is determined by the date of the applicant's file; submitting admissions documents early also insures that there is adequate time for effective counseling and schedule planning. A later place in registration often means that the classes a student desires are already filled.

Applicants must submit the following material to the Admissions Office to have a complete admissions file:

a. An official application, available from the Admissions Office.

b. Official Transcripts: The following must be submitted: (1) for beginning college students an official high school transcript from the last high school attended; (2) for college transfer students, official transcripts for all previous college work attempted. The college's accrediting agency requires transcripts, and the college uses them in program advisement.

All applicants may select only those classes available when they register. Students may enroll in certain courses at times other than regular semester registration. See the Flexible Entry Courses section in this catalog and contact the Registrar's Office for additional information.

Students entering with academic deficiencies or low assessment scores may be admitted on probation and may be required to enroll in developmental or other programs designated by the college.

Tuition

Tuition is charged on a sliding scale according to the number of credit hours for which a student is enrolled and the student's place of legal residence. Tuition is subject to change without notice by the Board of Trustees or the Texas Legislature.

Additional Fees

Additional fees may be assessed as new programs are developed with special laboratory costs. These fees will always be kept to a practical minimum. A graduation fee is not assessed, but each student must pay for cap and gown rental.

Special Fees And Charges

Laboratory Fee: $2 to $8 a semester (per lab).

Class Fee: Variable special costs of course not otherwise defined as "Laboratory Fee." Rental costs of specialized equipment and off-campus facilities are examples of "class fees."

Physical Education Activity Fee: $5 a semester.

Bowling Class Fee: Student pays cost of lane rental.

Private Music Lesson Fee: $45 for one hour per week (maximum) for one course, $25 for one half hour per week.

Audit Fee: The charge for auditing a course is the same as if the course were taken for credit, except that a student service fee is not charged.

Credit by Examination: A fee will be charged for each examination. This fee can change without prior notice.

Refund Policy

The refund policy of the District is based upon state regulations and on the fact that student tuition and fees provide only a fraction of the cost of offering educational opportunities. When students enroll in a class, they reserve places which cannot be made available to other students until they officially drop the class. In addition, the original enrollment of students represents a sizable cost to the District regardless of continuance in that class. Therefore, a refund is made only under the following conditions:

(1) Official withdrawal:

Students who officially withdraw from the institution shall have their tuition and mandatory fees refunded according to the following schedule:

Fall and Spring Semesters

Prior to the first class day	100%
During the first five class days	80%
During the second five class days	70%
During the third five class days	50%
During the fourth five class days	25%
After the fourth five class days	NONE

Summer Semesters

Prior to the first class day	100%
During the first, second or third class day	80%
During the fourth, fifth or sixth class day	50%
After the sixth class day	NONE

(2) Official drop of a course or courses:

Students who reduce their semester credit hour load by officially dropping a course or courses and remain enrolled at the institution will have applicable tuition and fees refunded according to the following schedule:

Regular Session

During the first twelve class days	100%
After the twelfth class day	NONE

Summer Session

During the first four class days	100%
After the fourth class day	NONE

Separate refund schedules may be established for optional fees such as intercollegiate athletics, cultural entertainment, parking, etc.

Tuition and fees paid directly to the institution by a sponsor, donor, or scholarship shall be refunded to the source rather than directly to the student.

(3) A student dropping a portion of his or her class load after the twelfth class day of a fall or spring semester (fourth class day of a summer session) is not entitled to a refund unless approved by the Refund Petitions Committee.

(a) Refund petitions, accompanied by an explanation of any existing circumstances, shall be submitted to the Refund Petitions Committee on the campus.

(b) If the petition is approved by the committee, the student shall be notified and shall receive a refund of tuition and fees according to the appropriate schedules in this policy.

(4) The student must submit the request for refund before the end of the semester or summer session for which the refund is requested.

(5) Mandatory fees shall include, but not be limited to, student activity fees, laboratory fees, private lesson fees, and physical education activity fees.

(6) Flexible entry courses are to be handled as regular semester length courses. The refund schedule will be prorated accordingly.

(7) Refund checks normally require a minimum of one month from date of approval for processing.

(8) The college academic calendar shall specify the last day for withdrawal with refund.

Returned Checks

Checks returned to the Business Office must be paid with cash or a cashier's check within the time limits prescribed by the notification letter. An additional fee is added for returned checks. If a check for tuition is returned by the bank for any reason, including stop payment, the College Business Office may submit the check to the Justice of the Peace for appropriate legal action and collection. The Vice President of Student Development may also implement disciplinary procedures.

Assessment and Advisement Procedures

Assessment is the process of evaluating readiness for certain college courses and the probabilities for success in those courses. The College has an assessment program for entering students which is a required part of the enrollment process.

The assessment program includes the completion of a questionnaire which documents information on career and work plans, previous academic achievement and other relevant information. Assessment also includes an examination of individual skill levels in reading, writing and mathematics. Information on skills may come from ACT or SAT results, previous *college-level* work or from scores on the standardized tests administered free of charge by the College.

Because of the importance of such information, students should have official copies of ACT and/or SAT scores and transcripts mailed to the Admissions Office or bring them personally at the time of application. It is the responsibility of the student to make these available.

The assessment program provides information needed in advisement. Academic advisement sessions provide a framework for informed decision-making on the part of students and advisors. Information on a student's skills, abilities, career plans, educational background, life experiences, and motivation is important in helping the student and advisor make selections from the many educational options available.

Details of assessment and advisement procedures are available through the College Counseling Center or in the "Schedule of Classes" each semester.

Change Of Schedule

Students should be careful in registering to schedule courses only for the days and hours they can attend. Students requesting class changes should contact the Registrar's Office during the time specified in the class schedule. No change is complete until it has been processed by the Registrar's Office.

Non-Credit Student (Audit)

A person who meets the admission requirements of the District may, with the consent of the division chairperson and instructor, enroll in a credit course as a non-credit student. A non-credit student may attend class, but may not receive a final grade or credit for a course. An instructor may give an examination if he or she determines the examination is an essential component of the learning process. The fee in a credit course is the same for a non-credit student as for a credit student, except that a student service fee may not be charged.

TUITION AND STUDENT SERVICES FEE
Fall and Spring Sessions

Semester Credit Hours	Dallas County			Out-of-District			Out-of-State or Country		
	Tuition	Fee	Total	Tuition	Fee	Total	Tuition	Fee	Total
1	$ 36	$ 3	$ 39	$ 100	$ 3	$ 103	$ 200	$ 3	$ 203
2	36	3	39	100	3	103	200	3	203
3	36	3	39	100	3	103	200	3	203
4	48	4	52	132	4	136	244	4	248
5	60	5	65	165	5	170	305	5	310
6	72	6	78	198	6	204	366	6	372
7	84	7	91	231	7	238	427	7	434
8	96	8	104	264	8	272	488	8	496
9	108	9	117	297	9	306	549	9	558
10	120	10	130	330	10	340	610	10	620
11	130	11	141	342	11	353	671	11	682
12	140	12	152	354	12	366	732	12	744
13	150	12	162	366	12	378	793	12	805
14	160	12	172	378	12	390	854	12	866
15	170	12	182	390	12	402	915	12	927
16	180	12	192	402	12	414	976	12	988
17	190	12	202	414	12	426	1037	12	1049
18	200	12	212	426	12	438	1098	12	1110
19	210	12	222	438	12	450	1159	12	1171
20	220	12	232	450	12	462	1220	12	1232

TUITION
Summer Sessions

Semester Credit Hours	Dallas County Tuition	Out-of-District Tuition	Out-of-State or Country Tuition
1	$ 36	$100	$200
2	36	100	200
3	42	138	200
4	56	184	268
5	70	230	335
6	84	276	402
7	92	286	469
8	100	296	536
9	108	306	603

The following definitions are brief guidelines only; please discuss any questions regarding proper tuition classification with admissions office personnel.

TUITION REQUIREMENTS FOR LONG TERM:

1. **Dallas County Residents***** $12.00 per credit unit through ten credit units and $10.00 for each additional credit unit over ten credit hours; minimum of $36.00
2. **Out-of-District Residents*** $33.00 per credit unit through ten credit units and $12.00 for each additional credit unit over ten credit units; minimum of $100.00
3. **Out-of-State Residents**** $61.00 per credit unit; minimum of $200.00
4. **Out-of-Country Residents** $61.00 per credit unit; minimum of $200.00

SUMMER SESSION

1. **Dallas County Residents***** $14.00 per credit unit through six credit units and $8.00 for each additional credit unit over six credit units; minimum of $36.00
2. **Out-of-District Residents*** $46.00 per credit unit through six credit units and $10.00 for each additional credit unit over six credit units; minimum of $100.00
3. **Out-of-State Residents**** $67.00 per credit unit; minimum of $200.00
4. **Out-of-Country Residents** $67.00 per credit unit; minimum of $200.00

The charge for auditing a course is the same as taking the course for credit.

*Provided he has established legal residence in the State of Texas; a student's county of residence is the county in which his legal guardian resides, if he is under 18 years of age and unmarried. Students 18 years of age and older and all married students are deemed to be residents of the county in which they reside.

**An "Out-of State Resident" is defined to be a student of less than 18 years of age, living away from his family and whose family resides in another state or whose family has not resided in Texas for twelve months immediately preceding the date of registration; or a student 18 years of age or older who has not been a resident of the state twelve months subsequent to his 18th birthday or for the twelve months immediately preceding the date of registration.

***A full-time District employee or his dependent who resides outside Dallas County is eligible for Dallas County tuition rates.

An individual who would have been classified as a resident for the first five of the six years immediately preceding registration but who resided in another state for all or part of the year immediately preceding registration shall be classified as a resident student.

The description of resident and non-resident status contained above are generally applicable, but the determination of residence status for tuition purposes is specifically governed by the provisions of V.T.C.A. Education Code, Section 54.052, the rules and regulations of the Coordinating Board, Texas College and University System, and judicial and/or administrative interpretations thereof. In the event of conflict between the above-noted descriptions and the latter authorities, the latter shall govern.

Pursuant to the authorization contained in the Texas Education Code Section 130.003, subsection (b)(4), the Board has waived the difference in the rate of tuition for non-resident and resident students for a person or his dependent, who owns property which is subject to ad valorem taxation by the District.

A foreign national on any other than a permanent resident visa must pay out-of-country tuition and fees.

*The tuition schedule above is subject to change without notice by action of the District Board of Trustees or the State of Texas.

Transfer Of Credits

Transfer of credit is generally given for all attempted work at colleges and universities recognized by a national accrediting agency equivalent to the Southern Association Commission on Colleges. The Registrar's Office evaluates all transfer credit. Transfer students admitted with a grade point deficiency cannot graduate until the deficiency is cleared by earning additional grade points. Credits earned in military service schools or through the U.S. Armed Forces Institute are reviewed by the Registrar and credit granted if applicable.

Address Changes And Social Security Number

Each student has the responsibility to inform the Registrar's Office of changes in name or address. Each applicant for admission is asked to furnish a Social Security number. This number doubles as a student identification number and insures accuracy of student records. If a student does not have a Social Security number, another number is assigned for record keeping.

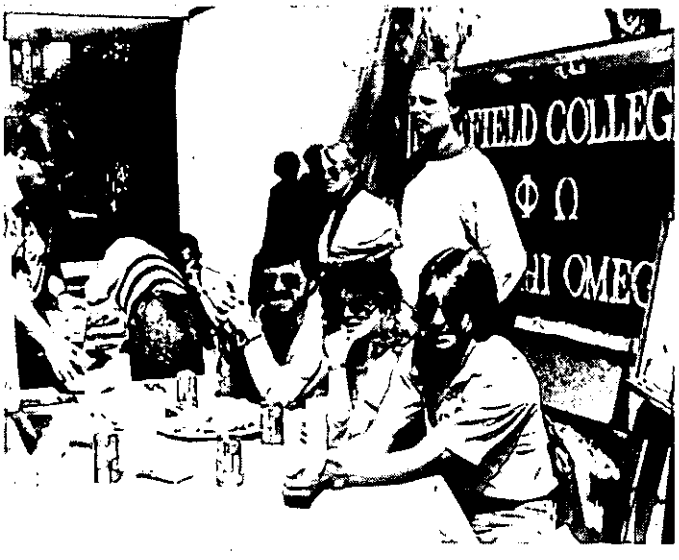
TASP (Texas Academic Success Program)

The Texas State Education Code requires that all students "...who enter public institutions of higher education in the fall of 1989 and thereafter must be tested for reading, writing and mathematics skills." This includes all "...full-time and part-time freshmen enrolled in a certificate or degree program...", any non-degree students prior to the "accumulation of nine or more [college] credit hours or the equivalent," and "...any transfer students with fewer than 60 semester credit hours or the equivalent who has not previously taken the tests."

Performance on the test will not be used as a condition of admission.

A student may not "...enroll in any upper division course [the] completion of which would give the student 60 or more semester credit hours or the equivalent until the student's test results meet or exceed the minimum standards in all test scores." Other assessment procedures may be used in exceptional cases to allow a student to enroll in upper division courses "...in cases where student test results do not meet minimum standards" (Texas Education Code, Sec. 51.306).

The test fee wil be paid by the student.



IV. ACADEMIC INFORMATION

Scholastic Standards: Grades And Grade Point Average

Final grades are reported for each student for every course according to the following grading system.

Grade	Interpretation	Grade Point Value
A	Excellent	4 points
B	Good	3 points
C	Average	2 points
D	Poor	1 point
F	Failing	0 points
I	Incomplete	Not Computed
WX	Progress; re-enrollment required	Not Computed
W	Withdrawn	Not Computed
CR	Credit	Not Computed

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of credit hours the course carries. For example, a student who takes a three hour course and earns an "A" accumulates 12 grade points for that course. A student's grade point average is computed by adding the total grade point values for all courses and dividing by the number of credit hours attempted during the same period. For example, a student who takes the following courses and earns the following grades has a grade point average 2.93:

Credit Hours	Grade	Grade Points
2-hour course	A	8
3-hour course	B	9
4-hour course	B	12
3-hour course	C	6
Total Credit Hours:		Total Grade Points:
12		35

35 ÷ 12 = 2.93

For repeated courses, only the latest grade earned is included in cumulative grade point averages, even if the latest grade is lower than a preceding grade. However, transcripts do indicate all work completed in the District. When a student withdraws from a course being repeated, the cumulative grade point average is calculated by using the immediately preceding grade in the same course.

If a student believes an error has been made in determining a course grade, the instructor or appropriate division office should be contacted as soon as possible. Requests for grade changes will not be considered later than two years following the last day of the semester for which the grade was assigned.

An incomplete grade "I" may be given when an unforeseen emergency prevents a student from completing the work in a course. The "I" must be converted to a performance grade (one with a grade point value) within 90 days after the first day of classes in the subsequent regular semester. If the work is not completed after 90 days, the "I" is converted to a performance grade.

An Incomplete Contract is used to convert an incomplete grade to a performance grade and states the requirements for the satisfactory completion of the course. The Incomplete Contract must be agreed upon and signed by the instructor, the student and the division chairperson and submitted with the final grade report. When an Incomplete Contract must be submitted without the student's signature, the instructor must include a statement indicating that the student is aware of and in agreement with the contract.

Students who do not complete course requirements may receive a "WX" grade when the instructor determines that reasonable progress has been made and when the student can reenroll for course completion prior to the certification date in the next regular semester. If the student re-enrolls and completes the course requirements, the "WX" remains for the first enrollment; a performance grade is given for the second enrollment. If the student does not complete the course requirements, the "WX" is converted to a performance grade.

Acceptable Scholastic Performance

College work is measured in terms of credit hours. The number of credit hours offered for each course is given with the course description.

Acceptable scholastic performance is the maintenance of a grade point average of 2.0 (on a 4.0 scale) or better. Students may not be graduated from any degree or certificate program unless they have a cumulative grade point average of 2.0 or better. Grade points and hours earned in courses numbered 99 and below, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Library Skills 101, Music 199, and Theatre 199 cannot be used to meet graduation requirements.

Recommended Academic Load

The maximum academic load is 18 credit hours of course work per semester or five classes plus physical education. Students must receive permission of the appropriate college official to carry a heavier load. Employed students carrying a full load (12 credit hours or more) should not work more than 20 hours per week. Students working more hours should reduce their academic load proportionately. The recommended load limit for day or evening students who are employed full-time is six credit hours. The recommended load limit in a six-week summer session is six credit hours. A total of 14 credit hours is the maximum that may be earned in any 12-week summer period.

Classification Of Students

Freshman:

A student who has completed fewer than 30 credit hours.

Sophomore:

A student who has completed 30 or more credit hours.

Part-time:

A student carrying fewer than 12 credit hours in a given semester.

Full-time:

A student carrying 12 or more credit hours in a given semester.

Class Attendance

Students are expected to attend regularly all classes in which they are enrolled. Students have the responsibility to attend class and to consult with the instructor when an absence occurs.

Instructors are responsible for describing attendance policy and procedures to all students enrolled in their classes. If a student is unable to complete a course (or courses) in which he/she is registered, it is the *student's* responsibility to withdraw from the course by the appropriate date. (The date is published in the academic calendar each year.) If the student does not withdraw, he/she will receive a performance grade, usually a grade of "F."

Students who are absent from class for the observance of a religious holiday may take an examination or complete an assignment scheduled for that day within a reasonable time after the absence if, not later than the 15th day of the semester, the student notified the instructor(s) that the student would be absent for a religious holiday. Sec. 51.911 Tx. Educ. Code.

Dropping A Course Or Withdrawing From College

To drop a class or withdraw from the College, students must obtain a drop or withdrawal form and follow the prescribed procedure. It is the student's responsibility to drop or withdraw. Failure to do so will result in receiving a performance grade, usually a grade of "F." Should circumstances prevent a student from appearing in person to withdraw from the College, the student may withdraw by mail by writing to the Registrar. No drop or withdrawal requests are accepted by telephone. Students who drop a class or withdraw from the College before the semester deadline receive a "W" (Withdraw) in each class dropped. The deadline for receiving a "W" is indicated on the academic calendar. See "Refund Policy" for possible eligibility for a refund.

Academic Recognition

Full-time students who complete at least 12 hours of credit and earn a grade point average of 3.5-3.79 are listed on the Vice President's Honor Roll. Full-time students who complete at least 12 hours of credit and average 3.8-4.0 are placed on the President's Honor Roll. Part-time students who take six-11 credit hours and maintain a 3.5 or higher grade point average are placed on the Academic Recognition List.

Scholastic Probation And Scholastic Suspension

Full-time and part-time students who have completed a total of 12 credit hours are placed on probation if they fail to maintain a 2.0 cumulative grade point average. Students may be removed from probation when they earn a 2.0 cumulative grade point average. Students on scholastic probation who achieve either a cumulative grade point average of 1.5 or above or a previous semester grade point average of 2.0 or above are continued on scholastic probation. Students on probation who do not meet the requirements for continued probation are placed on scholastic suspension. Students on suspension for the first time may not register for the immediately following semester or summer sessions without special permission. Suspended students must file a petition for readmission. The conditions for readmission are established and administered by the Vice President of Student Development.

Grade Reports

A grade report is issued to each student at the end of each semester and gives the grade earned in each course that semester. A transcript is the official record of college work and gives all grades earned throughout the DCCCD college career. Transcripts are withheld from students who have not met financial or other obligations to the College. (See Student Codes and Expectations: "Financial Transactions with the College.")

Transcripts Of Credit

Upon the written request of a student, the Registrar's Office will send an official transcript to the individual student or to any college or agency named. A fee will be charged for each transcript requested. The transcript may be withheld, however, until the student has settled all obligations with the College.

Degree Requirements

The College confers the Associate in Arts and Sciences Degree upon students who have completed all requirements for graduation. Each degree candidate must earn the last 15 hours as a resident student in the District colleges or accrue 45 hours in residence.

Students seeking certificates or associate degrees must submit official transcripts of all previous work attempted before a certificate or degree will be awarded. Failure to submit official transcripts directly from the institutions attended will result in the degree or certificate not being awarded.

The degree must be awarded by the college which offers the program in which the student majored. If two or more schools offer the program, the student is granted the degree where the majority of the hours were taken. Correspondence work must be approved by the Registrar for graduation credit. No more than one-fourth of the work required for any degree or certificate may be taken by correspondence.

The Common Learning Curriculum

The Common Learning curriculum is composed of required courses and clusters of courses designed to advance the learning which is common to all candidates for a degree.

The Core Curriculum consists of English 101, Speech Communication 101, and a math course numbered 100 or above. A grade of "C" or better in each of the three courses is required for graduation. Students are strongly advised to enroll in these courses in the first two semesters of study because skills necessary for success in other courses are taught in Core courses.

Common Learning course requirements beyond the Core are designed to help ensure that all graduates have general knowledge as well as the specific knowledge ordinarily associated with a major course of study or a technical program. Candidates for the Associate in Arts and Sciences must take 34-36 hours in approved Common Learning courses beyond the Core. Candidates for the Associate in Applied Arts and Sciences must choose six to eight hours of course work from two of the following clusters: Laboratory Science, Behavioral/ Social Science, Business, and Humanities.

Associate in Arts and Sciences Degree

Students must have a minimum of 61 credit hours, a grade of "C" or better in each of the three Core courses, and a grade point average of at least "C" (2.0) to receive the Associate in Arts and Sciences Degree. These 61 hours may be earned at any District college and must include:

- English 101, Speech Communication 101, and a math course numbered 100 or above. (9 credit hours)
- English 102 and a sophomore literature course. (6 credit hours)

- Laboratory Science (8 credit hours) chosen from Astronomy, Biology, Chemistry, Geology, Physical Science, or Physics. (For Astronomy to count as a lab science, the student must complete successfully Astronomy 101 in combination with 103 and Astronomy 102 in combination with 104.)
- Humanities (3 credit hours) to be chosen from Art 104, a foreign language, Humanities 101, Literature, Music 104, Philosophy 102, or Theatre 101.
- Physical Education activity course (1 credit hour).
- Behavioral Science (3 credit hours) to be chosen from Anthropology, Human Development, Psychology, or Sociology.
- History 101-102 (6 credit hours) and Government 201-202 (6 credit hours). Only three credit hours of history and three credit hours of government may be earned through credit by examination.
- Business (3 credit hours) to be chosen from Business, Accounting, Management, Computer Information Systems, or Economics. Cooperative Work Experience courses may not be used to meet Common Learning degree requirements.
- Electives (16-18 credit hours).

A maximum of four physical education activity hours may be counted as credit toward requirements for graduation. The G.P.A. for graduation is based on the credit earned for all DCCCD work completed and all transfer work. The following courses will not count toward graduation nor the G.P.A. for graduation: Courses numbered 099 and below, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Library Skills 101, Music 199, and Theatre 199.

All students planning to transfer to a four-year institution may complete their four semester requirements in physical education during their freshman and sophomore years. Students are urged to consult the catalogs of the institutions to which they may transfer for their special requirements. These catalogs should be used by students and advisors in planning programs.

Associate in Applied Arts and Sciences Degree

Students must have a minimum of 60 credit hours, a grade of "C" or better in each of the three Core courses, and a grade point average of at least "C" (2.0) to receive the Associate in Applied Arts and Sciences Degree. These 60 hours must include:

- English 101 or Communications 131, Speech Communication 101, and a math course numbered 100 or above. (9 credit hours)
- Six to eight credit hours chosen from two of the following clusters:

  Laboratory Science: Astronomy, Biology, Chemistry, Geology, Physical Science, or Physics. (For Astronomy to count as a lab science, the student must complete successfully Astronomy 101 in combination with 103 and Astronomy 102 in combination with 104.)

  Behavioral/Social Science: Anthropology, Government, History, Human Development, Psychology, or Sociology.

  Humanities: Art 104, a foreign language, Humanities 101, Literature, Music 104, Philosophy 102, or Theatre 101.

  Business: Business, Accounting, Management, Computer Information Systems, or Economics. Cooperative Work Experience courses may not be used to meet Common Learning degree requirements.

Where a technical/occupation program heavily emphasizes a specific cluster as part of its requirements, students are encouraged to select from other clusters to satisfy this requirement. For example, students pursuing an A.A.A.S. degree in accounting must enroll in many courses from the business cluster as part of their program requirements. Therefore, to meet Common Learning requirements, the 6-8 additional hours should be selected from the other three clusters: Behavioral/Social Sciences, Humanities, or Laboratory Science.

For some programs, more than 60 credit hours are required. All prescribed requirements for the specific technical/occupational program in which the student is enrolled must be completed. These programs may also have other criteria in addition to degree requirements. See the Technical/Occupational Programs section of the catalog for a more detailed explanation. A maximum of four physical education activity hours may be counted as credit toward graduation. The G.P.A. for an Applied Arts and Sciences Degree is based only on the hours used to meet degree requirements. The following courses will not count toward graduation nor the G.P.A. for graduation: Courses numbered 099 and below, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Library Skills 101, Music 199, and Theatre 199.

Certificate Career Programs

The requirements for certificates are detailed under specific programs in the Technical/Occupational Programs section of this catalog. A "C" (2.0) grade point average is required. The G.P.A. for a certificate is based only on the hours used to meet certificate requirements. The following courses will not count toward graduation nor the G.P.A. for graduation: Courses numbered 099 and below, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Library Skills 101, Music 199, and Theatre 199.

Procedure For Filing Degree And Certificate Plans And For Graduation

Students should request a degree plan from the Registrar's Office at the end of their freshman year. Official transcripts of all previous college work must be on file at the time of request for degree plans. Students following a one-year certificate program should request an official plan during the first semester of their enrollment. Application for the granting of the degree or certificate should be filed in the Registrar's Office prior to the deadline announced by the Registrar.

An annual graduation ceremony is held at the conclusion of the spring semester. Participation is ceremonial only and

confers on a student no rights to a degree. December graduates may participate in the next commencement if they desire and July and August graduates may participate in the spring commencement if they desire, but neither is required to do so. The Registrar's Office should be notified if the student wishes to participate. Instructions for graduation are mailed to all candidates prior to commencement.

In addition to other graduation requirements, a student has five (5) years from the date of original enrollment in the college granting the degree to complete the specific course requirements detailed in the college catalog. If the student does not fully complete the course requirements within five (5) years, the student must select a subsequent catalog year, provided the requisite courses are still being offered in the program.

The student has the ultimate responsibility to select and register for courses meeting graduation requirements.

Waiving Of Scholastic Deficiency

Any student in an academic transfer program may transfer to Applied Arts and Sciences degree or Certificate program. In such a case, the student may choose to have any grades below "C" disregarded. However, the procedure for disregarding low grades may only be exercised while the student is in a career program. If the student changes to an academic transfer program, the original conditions of the academic transfer program must be followed, including the calculation of a cumulative grade point average of all college credits earned. The procedure for waiving scholastic deficiency applies both to students of this college and to students transfering from other institutions. The student who wishes to use the procedure for waiving scholastic deficiency should so state in writing to the Registrar prior to registration and should inform a counselor of such intentions during the pre-registration advisement session.

V. EDUCATIONAL AND SPECIAL OPPORTUNITIES

Academic Transfer Programs

Students who desire to earn a bachelor's degree may complete freshman and sophomore courses in the DCCCD before transferring to a four-year institution. The academic transfer curriculum is coordinated with four-year colleges and universities to aid the transfer of credits to these schools. Students must understand that each four-year institution establishes its own course requirements for its majors and degrees. Even in the same major, what one four-year institution requires may differ greatly from the requirements of another four-year institution. Students should consult with a DCCCD counselor or advisor and the four-year institution on a regular basis to insure enrollment in courses appropriate to the selected degree or program.

Below is a list of some majors which students can begin within the DCCCD. For specific majors and programs, students should consult with an advisor or counselor.

Accounting
Advertising
Agriculture
American Studies
Anthropology
Architecture
Art
Biochemistry
Biological Sciences
Botany
Business Administration (including Accounting, Finance, Management, Marketing)
Business Education
Chemistry
City and Regional Planning
Communications
Computer Science
Dance
Dentistry
Dietetics
Drama
Economics
Elementary Education
Engineering
English
Entomology
Fine Arts
Finance
Foreign Languages
Forestry
Geography
Geology
Health Science
History
Home Economics
Industrial Arts
Industrial Design
Journalism
Law
Liberal Arts
Life Science
Management
Marine Biology
Marketing
Mathematics
Medical Technology
Medicine (Pre-Med)
Meteorology
Microbiology
Music
Natural Sciences
Nursing
Occupational Therapy
Oceanography
Optometry
Pharmacy
Philosophy
Photography
Physical Education
Physical Science
Physical Therapy
Physics
Political Science
Pre-Dental, Pre-Medical, Pre-Veterinary
Psychology
Public Relations
Radio/Television/Film
Recreation

Secondary Education
Sociology
Special Education
Speech Communications
Speech Pathology and Audiology
Theatre
Telecommunications
Theology
Veterinary Medicine
Urban Studies
Wildlife Management
Zoology

The fields of dentistry, law, medicine, optometry, pharmacy, veterinary medicine, and theology generally require graduate study. Students who plan eventually to get a graduate degree in one of these fields or areas should consult with a counselor or advisor about an appropriate undergraduate major.

Students are encouraged to consult counselors about the transfer information and resources which are available in the college counseling center. Counselors and advisors can assist students in interpreting information from university and college catalogs. The number of credit hours which are transferable will vary from institution to institution. Most colleges and universities will accept at least 60 hours in transfer. In addition, some colleges and universities may have specific grade point average requirements for transfer students. IT IS THE RESPONSIBILITY OF STUDENTS TO KNOW ANY SPECIFIC REQUIREMENT OF THE COLLEGE OR UNIVERSITY TO WHICH THEY WISH TO TRANSFER. THIS RESPONSIBILITY INCLUDES KNOWING COURSE REQUIREMENTS, NUMBER OF CREDIT HOURS ACCEPTED, AND GRADE POINT AVERAGE REQUIREMENTS.

Technical/Occupational Programs

Students who desire to enter a chosen field as a skilled employee after one or two years of college work may enroll in one of the many technical/occupational programs offered by the College.

Technical/occupational courses are accredited college courses which lead to a Certificate of Completion or an Associate in Applied Arts and Sciences Degree. These programs are established only after studies verify that employment opportunities exist in business and industry.

The College attempts to match the community's labor requirements with the ambitions and goals of its students. This realistic approach to occupational education is made possible by the excellent cooperation of local industry, business, and public agencies who increasingly depend on District colleges to supply skilled personnel.

A continuous liaison is maintained with prospective employers to help place graduates and to keep the training programs current with job requirements. Recommendations for adding new programs to the College offerings are made periodically and are based on community studies which identify additional needs.

Many technical/occupational courses can be offered on company sites for their employees.

Credit By Examination

Students who believe they already meet the requirements of a course by experience or previous training may request credit by examination. The Registrar's Office has knowledge of courses available through this method. The examination may be a section of the College Level Examination Program (CLEP), Advanced Placement Exams (CEEB), or a teacher-made test, depending on the course.

The student pays an examination fee for each course examination. This fee must be paid prior to taking the examination and is not refundable. The College's credit by examination program is coordinated with similar programs of four- year institutions. Final acceptance of credit by examination for specific degree purposes is determined by the degree-granting institution. Students planning to use credit by examination to meet degree requirements at other institutions should check the requirements of the receiving institution.

Students must be currently enrolled at this college to receive credit by examination. Students may not request credit by examination in courses for which they are currently enrolled. Students may earn as many credits through examination as their ability permits and needs require, but the last 15 credit hours required for graduation in any degree or certificate program may not be earned through credit by examination except as approved by the Vice President of Instruction.

Credit by examination may be attempted only one time in any given course, and a grade of "C" or better must be earned in order for credit to be recorded. A student may use credit by examination for only three (3) credit hours to apply toward the degree requirements in history and only three (3) credit hours to apply toward the degree requirements in government.

Non-Traditional Learning

The College is committed to serve students and the community in the most effective manner possible while maintaining high standards of education. Students learn in a variety of ways and through a multitude of experiences. Therefore, the College will evaluate these learning experiences and grant equivalent college credit according to the following guidelines:

1. The student must be currently enrolled in the college to receive equivalent credit for non-traditional learning.
2. Credit for specific courses offered by the college may be granted for non-traditional learning experiences after proper assessment of those experiences. Credit

will be awarded on a course by course basis only. The student must be enrolled in the college which is assessing the learning experiences.

3. A student is required to complete at least 12 semester hours of course work with the District, six of which are in the student's major occupational area, prior to awarding of equivalent credits for non-traditional activities. The "CR" grade is awarded for non-traditional course work accepted for credit.
4. Credit may be granted for occupational courses approved by the Coordinating Board of Colleges and Universities.
5. The number of equivalent credits awarded may not exceed the total number of credits required for the student's specific associate degree objective. No graduation, residency, degree or program requirements will be waived as a result of credits earned as provided by this policy.

Students desiring to take advantage of this opportunity should consult with the College Advocate for Non-traditional Learning for additional information. Students making application for assessment of prior learning through life experiences are required to enroll in a human development course to facilitate the process.

High School Articulation

The College has established a process for evaluating the work of high school vocational graduates to determine if a student can receive college credit for competencies mastered in the high school vocational program. Students should check with the College Dean of Career and Continuing Education or the Counseling Center for more information.

Flexible Entry Courses

In keeping with its commitment to meet individual educational needs, the College makes available flexible entry courses. These courses are often self paced, allowing students to work at their own speed. Students are cautioned to be aware of the time specified by the College as to when the course requirements need to be completed. Students may register for flexible entry courses during the pre-semester registration periods or at regular times during the semester. Students should check with the Registrar to determine times for registration in these courses. Approval must be obtained for enrollment.

Telecourses

Students may take a variety of college-credit courses via television which are called "telecourses." Telecourses require the viewing of video programs on local cable systems, KERA/Channel 13 or at campus Learning Resource Centers. Reading, writing and study guide assignments are required, as well as attendance at an on-campus orientation session. Three or four tests are administered on campus during each telecourse, and some courses require discussion meetings, laboratory sessions or field trips. Campus visits are scheduled for times convenient to students.

Content and credit for telecourses are equivalent to that of courses taken on campus. All telecourses are noted in the course description section of this catalog and their schedules included in the college class schedule. Telecourses may be taken in conjunction with on-campus classes, and students may enroll for them through normal registration processes. For more information, call the Telecourse Hotline: 324-7780.

Cooperative Work Experience

Students may enrich their education by enrolling in cooperative education courses. Cooperative education is a method of instruction that offers the student the opportunity to earn college credit for the development and achievement of learning objectives which are accomplished through current on-the-job experience.

Work experience must be related to a field of study and an occupational goal. This work experience takes place at work training stations approved by the College. Employers must be willing to enter into training agreements with the College and the student/employee. The College will assist a student in seeking approvable employment, if needed.

To enroll in a cooperative education course, students must:

- have completed at least six semester hours in an occupational major or secure waiver of requirement from the instructor;
- be currently enrolled in a course related to the major area of study;
- be approved by the instructor.

Additional information regarding cooperative education may be secured from the Cooperative Education Office, the Division Office, or Counseling Office at each college. Technical/occupational programs which include cooperative education are indicated in this catalog.

International Studies

Each year a number of selected programs combine learning experiences with foreign travel. Such study-travel is under the direct supervision of faculty, and college credit may be earned by students who successfully meet the learning objectives established for these courses. Most of these courses are offered during the summer, and a complete listing for 1988-89 can be secured from the District Office of Student and International Programs (746-2410).

Human Development Courses

In human development courses, students can learn skills useful in everyday living to promote their personal growth. Much of the success and satisfaction in life is dependent on good interpersonal communication skills, making healthy adjustments to our changing society, and pursuing a satisfying career. The human development curriculum gives the student an opportunity to obtain and practice skills in these important areas.

These courses are taught by counselors and other qualified instructors. They offer academic credits which transfer to most surrounding four-year institutions. The courses in human development enhance the total curriculum and blend in with the total concept of the community college.

Campuses also offer special topics courses relevant to life issues. In addition, Speech Communications 101, a course combining aspects of interpersonal communications and public speaking, is required for DCCCD associate degrees.

Developmental Studies

Students whose assignment test scores indicate they are performing below college level skills will be advised to enroll in developmental courses. Successful completion of these courses will provide prerequisite skills for college-

level work. Other students who want to review and improve basic skills may also elect to take one or more developmental courses.

Reading, writing and mathematics courses are offered in classroom settings with laboratory support. These developmental courses provide instruction directly relevant to students' personal, academic and career goals.

Evening And Weekend College

In dynamic, growing communities such as those encompassing this college, people have continuing educational needs, yet many of them have work schedules and personal involvements which make it impossible for them to attend college during normal daytime hours. For this reason, virtually every course offered during the day is also available in the evening and weekend college. Courses are offered both on campus and at selected community locations.

Evening and weekend courses offer high quality instruction, excellent facilities, and a variety of student services, including counseling, health, library, bookstore, food services, financial aid, and recreation. Instructors are selected from the College's own full-time staff, from outstanding Dallas area educators, and from other professional specialists interested in teaching. To enroll in the evening and weekend courses, contact the Director of Admissions.

Learning Resources Center and Library Obligations

The Learning Resources Center (LRC) supports the entire instructional program. The two major parts of the LRC are the library and instructional Media Services.

The library is a place where students can find books and non-print materials to supplement classroom learning or where — if they choose — they can actually take a course. The library helps students to learn in their own way and at their own speed. It provides books, slides, tapes, reference help, videotapes, and films. The college has a growing collection of books on a wide variety of general information areas to support academic transfer programs and technical/occupational programs. In addition, there are special collections of career materials and pamphlets. The library also subscribes to current popular and technical periodicals as well as to area and national newspapers.

Instructional Media Services supports the classroom instructional program and is responsible for all campus audio-visual equipment and non-print materials used in the classroom and for the production of instructional materials.

Willful damage to library materials (or property) or actions disturbing users of the library may lead to the loss of library privileges. Damage cases are referred to the appropriate authorities for further action. All books and other library materials must be returned before the end of each semester. No transcript is issued until the student's library record is cleared.

Servicemen's Opportunity College

In cooperation with other community colleges in the United States, colleges of the Dallas County Community College District participate in the Servicemen's Opportunity College. Through this program, students can plan an educational experience regardless of location requirements of the military. For further information, contact the Admissions Office.

Continuing Education Programs

Continuing education classes expand the available opportunities for persons of all ages to participate in college programs. A wide spectrum of courses is offered to adults and children through each campus's Continuing Education Division. Continuing education programs are offered throughout the year to meet a variety of needs such as:

- Educational opportunities for individuals who want to broaden their knowledge or learn new skills for different occupational fields.
- Cultural and community enrichment studies for groups and individuals seeking to enhance their quality of life.
- Personal entertainment and recreation for individuals wishing to explore new activities for personal growth and enjoyment.
- Resources for industry, government and professional groups needing to supplement their own training and development programs.

Continuing education program instructors are professional men and women from the community who have proven experience in their fields. Their objective is to share their knowledge, insight, and experience, and to insure that students acquire a greater perspective of the subject and have a meaningful learning experience. This is accomplished through seminars, workshops, and institutes.

The type of course is determined by the nature of the material, instructional approach, and needs of the requesting individuals or organizations. Usually there are no entrance requirements or examinations. Some courses may have age restrictions or may require a certain amount of experience for enrollment. Admission is on a first-come first-served basis. Registration is simple, quick and easy; you may even want to register by phone.

Classes and activities are held on the campus of each College and in a variety of locations throughout the community. Most classes and activities are conducted on weekday evenings, but are also held on weekdays and weekends.

Although most continuing education courses do not require textbooks, the nature of some special offerings do require the purchase of books or supplies. Students are notified of the need for texts and other materials at the first meeting.

Library privileges are afforded continuing education students during the term in which they are registered. Scholarship money is available for specific vocationally oriented courses. To apply for this type of scholarship, please inquire at the Continuing Education Office.

Continuing Education Units (CEU's)

Although no college credit is awarded for continuing education class participation, Continuing Education Units are transcripted for successful completion of most courses. One CEU, by nationwide definition, is "ten contact hours of participation in an organized continuing adult education or extension experience under responsible sponsorship, capable direction and qualified instruction." The CEU is a means of recording and accounting for the various continuing education activities one accumulates over a period of years.

The Business and Professional Institute

The Business and Professional Institute (B.P.I.) develops and delivers training programs and provides services to businesses, industries, government agencies, and professional associations. The Institute custom designs training or provides college credit programs or request to be taught on any of the college campuses or on-site at an office or plant. The duration of training or services is adjusted to meet special requirements and is based on a per-hour contract cost. A B.P.I. office is located on each campus and is staffed with training experts to assist the business community in identifying needs, developing programs and delivering training requests. Other B.P.I. services include conference planning, fitness/wellness programs, tele-conferencing, basic skills assessment, and small business development assistance.

VI. STUDENT DEVELOPMENT

The College is committed to providing opportunities for each individual student's total educational development. Specific student services are integrated with the instructional program of the College to address individual needs for educational, personal, social, cultural, and career development.

Student Programs and Resources

The Student Programs and Resources Office plans and presents programs and activities for the general campus population and the surrounding community. Programs often are coordinated with the various instructional divisions to provide students with valuable educational experiences. Many programs and activities are offered to help the student develop leadership and life enrichment skills. Other programs provide students with interesting and entertaining ways to spend leisure time on campus. The goal of all programs is to facilitate the development of cultured and well-rounded human beings. Student participation in programs is highly encouraged.

Counseling Center Services

Individuals may find the counseling services helpful as they make plans and decisions in various phases of their development. For example, counselors can assist students in selecting courses of study, determining transferability of courses, choosing or changing careers, gaining independence, and confronting problems of daily living. Assistance is provided by the counseling staff in the following areas:

1. Career counseling to explore possible vocational directions, occupational information, and self appraisals of interest, personality and abilities.
2. Academic advisement to examine appropriate choices of courses, educational plans, study skills, and transferability of courses.
3. Confidential personal counseling to make adjustment and life decisions about personal concerns.
4. Small group discussions led by counselors focusing on such areas as interpersonal relationships, test anxiety, and assertiveness. Counselors will consider forming any type of group for which there is a demand.

5. Referral sources to provide in-depth assistance for such matters as legal concerns, financial aid, tutoring, job placement, medical problems, or psychological problems.

Tutoring Services

For students needing special assistance in course work, tutoring services are available. Students are encouraged to seek services through self referral as well as through instructor referral.

Testing/Appraisal Center

The Testing Center administers various tests. Types of tests include:

1. Psychological tests of personality, vocational interests, and aptitudes.
2. Academic tests for college instructional programs. Many courses are individualized and self-paced, permitting students to be tested at appropriate times.
3. Assessment tests, required for appropriate class placement.
4. Tests for selected national programs.

Health Center

Health is the most fundamental human need, and a high standard of physical and mental health is desirable for every human being. The Health Center helps maintain and promote the health of students, faculty, and staff. Services provided by the Health Center include education and counseling about physical and emotional health, emergency first aid treatment, referral services to community agencies and physicians, tuberculin skin tests and other screening programs, and programs of interest to students and faculty. Students are encouraged to make an appointment with the nurse to discuss specific health problems. No information on a student's health is released without written permission from the student, except as required by law.

Placement Services

The Dallas County Community College District provides job placement services free of charge to DCCCD students (credit and non-credit), alumni, and those in the process of enrolling. Staff members provide assistance by utilizing the computerized Student Placement System. This system contains lists of job openings in a variety of fields throughout the Metroplex. Staff members also provide assistance with establishing employment contacts, job interviewing, writing a resume and cover letter, and developing job search strategies leading to success.

Services for Disabled Students

The Services for Disabled Students Office offers a variety of support services to enable disabled students to participate in the full range of college experiences. Services are arranged to fit the individual needs of the student and may include sign language interpreters; notetakers; tutors; mobility assistants; and loan of wheelchairs, audio tape recorders, talking calculators and audio texts (for those students with visual impairments or learning disabilities). Academic, career and personal counseling are also available. Disabled students should contact the office at least one month before registration. The office will provide students with an orientation session and registration information. For additional information, contact the Services for Disabled Students Office or the Counseling Center.

Student Organizations

Information about participation in any organization may be obtained through the Student Programs and Resources Office. The development of student organizations is determined by student interest. Categories of organizations include:

Co-curricular organizations pertinent to the educational goals and purposes of the College.

Social organizations to provide an opportunity for friendships and promote a sense of community among students.

Service organizations to promote student involvement in the community.

Pre-professional and academic organizations to contribute to the development of students in their career fields.

Intercollegiate Athletics

Participation on athletic teams is voluntary on a non-scholarship basis for students who meet requirements established by the Metro Athletic Conference. Some sports are associated with the National Junior College Athletic Association. For more information regarding eligibility, rules, standards, and sports offered, contact the Physical Education Office.

Intramural Sports

The College provides a campus intramural program for students and staff and encourages participation. For additional information contact the intramural director in the Physical Education Office or the Student Programs and Resources Office.

Housing

The College does not operate dormitories of any kind or maintain listings of available housing for students. Students who do not reside in the area must make their own arrangements for housing. Limited housing for DCCCD students may be available at Bishop College. Interested persons should contact the Vice President of Students at Bishop.

Campus Safety Department

Campus safety is provided within the framework of state law to "protect and police buildings and grounds of state institutions of higher learning." Because all laws of the state are applicable within the campus community, specially trained and educated personnel are commissioned to protect college property, personal property, and individuals on campus. Officers of the Campus Safety Department are licensed Peace Officers of the State of Texas. These officers are vested with full authority to enforce all Texas laws and rules, regulations, and policies of the College, including the Code of Student Conduct.

VII. FINANCIAL AID

Financial aid is available to help those students who, without such aid, would be unable to attend college. The primary resources for meeting the cost of education are the student, the parents and/or spouse. Financial aid, however, can remove the barriers for those families who cannot afford the cost of education beyond high school and can fill in the gap for families who can afford only part of the cost.

How to Apply

All students must complete the Financial Aid Application and return it to the Financial Aid office of the DCCCD college the student plans to attend. The Financial Aid Form of the College Scholarship Service must be completed using data from the 1040 Income Tax Return. This form is used to provide an analysis of financial need. It may be obtained from a high school counselor or from any DCCCD Financial Aid office. The FAF is to be mailed directly to the College Scholarship Service with the required processing fee noted on the form. Allow 4 to 6 weeks for the processing. The student should mail the FAF at least one month before the priority deadline for the semesters for which the student is applying.

The Department of Education will randomly select about 50% of all applicants and require that information reported on the FAF or PELL Grant application be verified for accuracy. If the student's application is one that is selected, the student will be required to provide additional documents before financial assistance can be awarded. An eligible non-citizen must submit a copy of an INS card as proof of immigration status before financial assistance can be awarded.

For students who attended other colleges, universities, vocational or trade schools (including our DCCCD colleges), a Financial Aid Transcript must be sent from each institution to the Financial Aid office of the school where the student is applying. This procedure is required even though the student may not have received financial assistance at the previous institution.

Students born after December 31, 1959, and who are required under the Military Selective Service Act to register for the draft, must do so before financial aid can be approved. All students who apply for financial aid must sign a Registration Compliance Statement giving their selective service registration status before financial aid can be awarded.

Deadlines for Applying

Application for financial assistance received by the following dates will be given first priority:

Academic Year — July 1
Spring Only — November 1
Summer Sessions — May 1

Applications received after these dates will be processed as time and availability of funds permit.

The student must reapply for financial assistance every year. The award does not continue automatically beyond the period awarded.

Grants

Pell Grant

The Pell Grant is a federally funded program designed to help undergraduate pre-baccalaureate students continue their education. The purpose of this program is to provide eligible students with a "foundation" of financial aid to assist with the costs of attending college.

All students applying for financial assistance through the College must apply for a Pell Grant. Other types of financial aid may be awarded if the student applies and qualifies. Eligibility for Pell Grant is based on financial need and satisfactory academic progress. Applications and additional information concerning the Pell Grant Program are available in the Financial Aid Office and in the counseling offices of most high schools. The application process takes approximately 8-10 weeks. In response to the Pell Grant application, a Student Aid Report (SAR) will be mailed directly to the student. The student should immediately review the SAR to make sure it is correct and bring all copies to the Financial Aid Office. The exact amount of the Pell Grant award will depend upon the aid index on the SAR and the number of hours for which the student enrolls. In order to be eligible, a student must enroll for at least six credit hours each semester. Students must apply each year.

Supplemental Educational Opportunity Grant (SEOG)

The SEOG program provides assistance for eligible undergraduate students who show exceptional financial need, are making satisfactory academic progress toward their educational goal and are enrolled for at least six credit hours. The maximum award for an academic year is $4,000; however, the actual amount of the grant may be limited to less than this, depending on the availability of funds at the school, the student's family financial condition and other financial aid the student is receiving. Priority is given to students receiving Pell Grant. Students must apply each year for the SEOG.

Texas Public Educational Grant (TPEG)

The TPEG Program was enacted by the 64th Texas Legislature to assist needy students attending state supported colleges in Texas. To be eligible students must show financial need and be making satisfactory academic progress toward their educational goal. The actual amount of the grant will vary depending on the availability of funds at the school, the student's family financial condition and other financial aid the student is receiving. This grant is available to students enrolled in credit and some non-credit courses. Students must apply each year for the TPEG.

Texas Public Educational-State Student Incentive Grant (TPE-SSIG)

The TPE-SSIG Program is a state grant that is matched with federal funds to provide financial assistance to needy students attending state-supported colleges in Texas. No more than 10% of the funds may be awarded to non-resident students. To qualify, students must enroll for at least six credit hours per semester, make satisfactory academic progress toward their educational goal, and have financial need. The maximum grant for an academic year is $2,500; however, the actual amount of the grant award may be less depending on the availability of funds and the degree of financial need. Grants are awarded by eligibility on a first-come, first-served basis. Students must apply each year for the TPE-SSIG.

Scholarships

DCCCD Foundation Scholarships

The DCCCD Foundation provides a sizeable scholarship program for students who attend one of the colleges of the DCCCD. These funds are made available through the colleges to deserving students who, also, meet additional criteria of the scholarship funds. Application forms for these Foundation scholarships are available in the Financial Aid Office at each college.

Miscellaneous Scholarships

Several of the colleges have a limited number of scholarships available as a result of gifts from individuals, private industry, and community organizations. Generally, the eligibility criteria is the same as noted for the DCCCD Foundation Scholarships, and application forms are available in the Financial Aid Office.

Loans

Guaranteed Student Loans (GSL):

The Higher Education Act of 1965, as amended, provided for student loans from private commercial lending agencies such as banks, savings and loan associations, credit unions and insurance companies. To be eligible students must now have financial need, make satisfactory academic progress toward their educational goal, and be enrolled for at

least six (6) credit hours. As an undergraduate, the student may borrow up to $2,625 per year for the first two academic years and a maximum of $17,250 for all years of undergraduate study. The actual loan amount may be limited to less than this, depending on the cost of attendance, other financial aid, and family financial condition.

The interest rate is set by Congress and is currently 8%. Borrowers do not pay interest until six months after ceasing at least half-time enrollment. The U.S. Dept. of Education pays the interest during the time the student is enrolled and during the grace period of six months following enrollment. Repayment begins six months after the student leaves school or drops to less than half-time enrollment. The minimum payment will be $50 per month, and the loan must be repaid within 10 years.

Lenders may charge a 5% loan origination fee on each loan in addition to the insurance premium charged on the loan. These charges will be deducted from the proceeds of the loan.

Under the new Supplemental Loans to Students (SLS) Program, independent undergraduate students are eligible to borrow up to $4,000 per academic year at 10.03% interest for the current year. The loan maximum is $20,000 for all the years of undergraduate study. Repayment begins within 60 days after disbursement of the loan, except that the borrower is entitled to a deferment of the principal for at least half time enrollment.

Under the PLUS Program, parents may now borrow up to $4,000 per year for each dependent undergraduate student with the loan maximum for each eligible student of $20,000. The current interest rate is 10.03%. Repayment begins within 60 days after disbursement of the loan.

Hinson-Hazelwood College Student Loan Program (HHCSLP)

The Hinson-Hazelwood Loan is a state-funded Guaranteed Student Loan Program for students who are attending Texas colleges and are eligible to pay Texas resident tuition rates.

All Hinson-Hazelwood Loan applicants must demonstrate financial need before a loan can be approved. The loan limit has been raised to $2,625 for the first two years of undergraduate study and a maximum of $17,250 for all one's years of undergraduate study. The actual loan amount may be limited to less than this depending on the cost of attendance, other financial aid, and the family's financial condition. A 5% loan origination fee and an insurance premium on the life of the student will be taken from the total amount of each loan. The interest rate currently is 7% per year simple interest. No interest or payments are paid by the student while enrolled at least half-time or during the six month grace period. The minimum payment will be $50 per month over a 5 to 10 year period depending on the total amount borrowed.

Emergency Short-Term Loans

The colleges of the DCCCD have limited short-term loan funds available which have been established by individuals and organizations, including the DCCCD Foundation, to meet emergency needs of students. Loans are usually limited to the amount of tuition and fees or books and supplies and bear no interest. These loans must be repaid within the semester for which they are borrowed. A late fee of $5 will be added for late payment. Delinquent loans are turned over to a collection agency for recovery, and the student must pay the entire cost of collection. Because there is heavy use of these short-term loan funds at registration, students should apply *before* registration if help from this program is needed.

Employment

College Work-Study Program (CWSP)

The College Work-Study Program provides part-time employment for students with financial need who are making satisfactory academic progress toward their educational goal and are enrolled for at least six credit hours. The wage rate is $4.25 per hour and most students work 15 to 25 hours per week. You will be paid on the last working day of the month. The amount you can earn in a school year is determined by the amount of your financial need and other aid awarded as part of your financial aid package. The majority of the students are employed on campus; however, some off-campus employment is also available. Students must apply each year for College Work-Study.

Student Assistants Employment Program (Non-Work-Study)

Part-time employment for students who do *not* have financial need is available on campus. The wage rate and the average hours worked per week are the same as the College-Work Study Program.

Off-Campus Employment

Students who need help finding a job off-campus should apply at the Placement Office of the college they plan to attend. The wage rate varies with each job and financial need is not a requirement of employment.

Tuition Exemption Programs

In addition to the grants, scholarships, employment and loan programs already mentioned, the State of Texas and DCCCD offer a number of exemptions from tuition and fee charges. These exemptions are often overlooked simply because of their unusual nature. They are not related to family income or "financial need," nor do they require completion of a regular financial aid application. Check with the Financial Aid Office for additional information on these tuition exemption programs and the criteria for eligibility.

Vocational Rehabilitation

The Texas Rehabilitation Commission offers assistance for tuition and fees to students who are vocationally handicapped as a result of a physically or mentally disabling condition. This assistance is generally limited to students not receiving other types of aid. For information, contact Texas Rehabilitation Commission, 13612 Midway, Suite 530, Dallas, Texas 75234.

Social Security Administration

The Social Security Administration has offered benefits to students who met its criteria. However, this program of educational benefits is being phased out so students need to contact the regional Social Security Administration Office regarding eligibility. The Admissions Office on campus acts as liaison between students and the Social Security Administration after eligibility has been established.

Bureau of Indian Affairs

The Bureau of Indian Affairs offers educational benefits to American Indian students. Students need to contact the regional Bureau of Indian Affairs Office regarding eligibility.

Bureau of Indian Affairs
1100 Commerce - Room 2C44
Dallas, Texas 75202

Veterans' Benefits Program

The Veterans' Benefits Program is coordinated by the Veterans' Affairs Office of the College. Services of this office include counseling the veteran concerning benefits. Veterans Administration loans, Veterans Administration work study programs, financial problems, career counseling, and other areas related to the veteran's general welfare. When testing indicates that a veteran should enroll in developmental courses such as reading, writing, or math, the student may pursue these courses with no charge to his or her benefits. Tutoring services are also available to the veteran who is having learning difficulties in one or more subjects. The veteran student should be aware of some of the Veterans Administration guidelines. Violation of these guidelines causes complications in receiving monthly benefits or loss of those benefits.

1. A veteran student who plans to enroll in developmental courses must be tested and show a need in basic skills before enrolling in these courses.
2. A veteran student enrolled in television courses must be pursuing more on-campus credit hours than hours taken by television.
3. A veteran student who has successfully completed credit hours at another college or university must submit a transcript from that college or university before applying for V.A. benefits. The transcript is evaluated and credit granted when applicable.
4. A veteran student must enroll in courses required for a degree program. Information on degree requirements may be obtained from the Registrar's Office.
5. A veteran student who withdraws from all courses attempted during a semester is considered as making unsatisfactory progress by the V.A. and may lose future benefits. A veteran student must also maintain a satisfactory grade point average as outlined in this catalog.

The above V.A. regulations are subject to change without notice. Students should contact the Veterans' Affairs Office in order to be aware of current regulations and procedures.

Hazlewood Act

Under the Hazlewood Act certain veterans who have exhausted remaining educational benefits from the Veterans Administration can attend Texas state supported institutions and have some fees waived. To be eligible, students must have been residents of Texas at the time they entered the service, have an honorable discharge, must now be residents of Texas, and be ineligible for federal financial aid. Applications are available at the Financial Aid Office and will take a minimum of eight weeks to process. To apply, students must submit a Hazelwood Act application, a copy of their discharge papers and a Student Aid Report stating ineligibility to the Financial Aid Office.

Academic Progress Requirements:

Students who receive financial aid or V.A. benefits are required by government regulations to make measurable progress toward the completion of their course of study.

Academic Progress Requirements

Federal law requires that students must be making satisfactory progress in their course of study in order to receive financial aid. DCCCD's policy requires that the following:

The Grade Point Average (GPA) Requirement:

1. A student must maintain a 2.0 GPA for each semester or the combined summer sessions for which an award is approved.
2. A new applicant must have a cumulative 2.0 GPA on all credit hours earned from District colleges prior to the semester for which aid is requested.
3. A transfer student from a college outside the District must have a cumulative 2.0 GPA as evidenced by an academic transcript. If no academic transcript is available at the time of the award, aid may be awarded on a probationary basis for one semester only.

Completion Requirement:

1. A student enrolled full-time (12 credit hours or more) must complete a minimum of 9 credit hours for any semester or the combined summer sessions for which funding is received.
2. A student enrolled three-quarter time (9-11 credit hours) or half-time (6-8 credit hours) must complete a minimum of 6 credit hours for any semester or the combined summer sessions for which funding is received.

Failure to Meet the Standards of Academic Progress:

In these provisions, probation or suspension means financial aid probation or suspension, not academic probation or suspension.

1. Following the first semester in which the above standards of academic progress are not met, the student will be placed on probation for the duration of the next semester of funding.
2. A new applicant with less than a cumulative 2.0 GPA will not have met the standards of academic progress; however, financial aid may be awarded on a probationary basis for one semester only.
3. The student who fails to meet the standards of academic progress during the semester of attendance while on probation will be placed on suspension and denied further funding for one semester or combined summer session.
4. During the first period of suspension, the student must enroll at least half-time for one semester at a District college, pay the expenses related to that enrollment and maintain the standards of academic progress before eligibility for financial aid will be reestablished.
5. If failure to meet satisfactory progress results in a second suspension from financial aid, the student must enroll at least half-time for the equivalent of two semesters at a District college, pay the expenses related to that enrollment and maintain the standards of academic progress before eligibility for financial aid will be reestablished.
6. Following any period of suspension, the student will again be eligible for funding on a probationary basis for one semester or combined summer session.
7. If failure to meet satisfactory progress results in a third suspension from financial aid, no additional aid will be awarded.
8. The colleges of the District shall enforce probation or suspension status of any student who transfers from one college to another within the District.

Notification:

A student who is placed on probation or suspension will be notified in writing of the student's status.

Incremental Measurement of Progress:

Academic progress of recipients will be measured three times a year following the Fall and Spring semesters and Summer II session for the entire summer enrollment.

Maximum Time Period for Completion of Educational Objective:

1. Each student receiving financial aid funds will be expected to complete their educational objective or course of study within a reasonable period of time. The maximum hour limit for the District is 75 credit hours.
2. Funding beyond the maximum hour limit may be approved by the Director of Financial Aid due to mitigating circumstances.

Appeal Process

1. A student who has been denied financial aid because of a failure to meet any of the criteria of the standards of academic progress may petition the Director of Financial Aid to consider mitigating circumstances.
2. A student who has been denied financial aid may make written appeal of the Financial Aid Director's decision to the Vice President of Student Development. The President of the College shall be the final appeal authority.

Effects on Funding:

1. Certain courses not considered for funding are:
   a. courses taken by audit; and
   b. courses taken outside the degree plan; however, developmental courses, if required as a prerequisite to enable a student to successfully complete a student's educational goal, will be considered for funding.
2. Credit hours earned by a placement test will not be considered for funding.
3. Courses for which an "I" (incomplete), "WX" or "W" (withdrawal) grade is received will not be treated as completed courses.
4. Repeated courses will be considered for funding.

VIII. DALLAS COUNTY COMMUNITY COLLEGE DISTRICT STUDENT RIGHTS AND RESPONSIBILITIES

Synopsis:

1. General Provisions

a. Preamble

The primary goal of the District and its colleges is to help students of all ages achieve effective living and responsible citizenship in a fast-changing region, state, nation and world. The District's primary concern is the student, each college attempts to provide an environment which views students in a holistic manner encouraging and inviting them to learn and grow independently, stressing the process and the acquisition of skills. Such an environment presupposes both rights and responsibilities. Free inquiry and expression are essential parts of this freedom to learn and of room for growth and development. However, this environment also demands appropriate opportunities and conditions in the classroom, on the campus and, indeed, in the larger community. Students must exercise these freedoms with responsibility.

The responsibility to secure and to respect general conditions conducive to the freedom to learn and to grow is shared by all members of the college community. Dallas County Community College District has a duty to develop policies and procedures which provide and safeguard this liberty and this environment. The purpose of this statement is to enumerate the essential provisions for student freedom to learn and grow and the responsibilities which go with these liberties as established by the Dallas County Community college District Board of Trustees.

b. Scope

(1) This code applies to individual students and states the function of student, faculty, and administrative staff members to the College in disciplinary proceedings.

(2) The College has jurisdiction for disciplinary purposes over a person who was a student at the time he allegedly violated a board policy, college regulation, or administrative rule.

c. Definitions: In this code, unless the context requires a different meaning:

(1) "Class day" means a day on which classes before semester or summer session final examinations are regularly scheduled or on which semester or summer session final examinations are given;

(2) "Vice President of Student Development" means the Vice President of Student Development, his delegate(s) or his representative(s);

(3) "Director of Student Programs" means the Director of Student Programs, his delegate(s) or his representative(s);

(4) "Director of Campus Security" means the Director of Campus Security, his delegate(s) or his representative(s);

(5) "President" means the president of a college of the Dallas County Community college District;

(6) "Student" means a person enrolled in a college of the Dallas County Community College District, or a person accepted for admission to the College;

(7) All vice presidents, deans, associate deans, assistant deans, directors, and division chairman of the College for the purposes of this code shall be called "administrators";

(8) "Complaint" is a written summary of the essential facts constituting a violation of a board policy, college regulation or administrative rule;

(9) "Board" means the Board of Trustees, Dallas County Community College District;

(10) "Chancellor" means the Chancellor of the Dallas County Community College District;

(11) "Major violation" means one which can result in suspension or expulsion from the college or denial of degree;

(12) "Minor violation" means one which can result in any disciplinary action other than suspension or expulsion from the College or denial of degree.

2. Acquaintance with Policies, Rules, Regulations

The Student Rights and Responsibilities statement is subject to change by action of the Board of Trustees. Each student is expected to be fully acquainted with all published policies, rules, and regulations of the College, copies of which shall be available to each student for review at the offices of the Vice President of Student Development and Student Programs. The College will hold each student responsible for compliance with these policies, rules and regulations. The student is responsible for obtaining published materials to update the items in this statement. Students are also expected to comply with federal, state and local laws. This principle extends to conduct off campus which is likely to have an adverse effect on the College or on the educational process.

3. Campus Regulations

a. Basic Standard: The basic standard of behavior requires a student:

(1) Not to violate any municipal, state, or federal laws, and

(2) Not to interfere with or disrupt the orderly educational processes of any college of the Dallas County Community College District.

A student is not entitled to greater immunities or privileges before the law than those enjoyed by other citizens generally.

b. Enumerated Standards: The succeeding regulations describe offenses for which disciplinary proceedings may be initiated, but the College expects from its students a higher standard of conduct than the minimum required to avoid discipline. The College expects all students to obey the law, to show respect for properly constituted authority, to perform contractual obligations, to maintain absolute integrity and a high standard of individual honor in scholastic work, and to observe standards of conduct appropriate for a community of scholars. In short, a student enrolled in the College assumes an obligation to conduct himself in a manner compatible with the College's function as an educational institution.

(1) Student Identification:

a. Issuance and Use: I.D. cards will be distributed during the first week of school and will be required for the following events and services; library usage, concerts, lectures, campus movies, use of student center facilities, voting in campus elections, and tickets for campus and community events. All I.D. cards are the property of the College and must be shown on request of a representative of the College. Students are required to be in possession of their I.D. cards at all times and are prohibited from loaning their I.D. cards to any other person for any reason. Likewise, it is prohibited to use any other card except the one issued by the College.

b. Replacement Cards: If lost, duplicate I.D. cards may be obtained in the Business Office by payment of a $4.00 charge.

(2) Use of District Facilities: Each college of the Dallas County Community College District is a public facility entrusted to the Board of Trustees and college officials for the purpose of conducting the process of education. Activities which appear to be compatible with this purpose are approved through a procedure maintained in the Student Programs Office.

Activities which appear to be incompatible or in opposition to the purposes of education are normally disapproved. It is imperative that a decision be made prior to an event in order to fulfill the trust of the public. No public facility could be turned over to the indiscriminate use of anyone for a platform or forum to promote random causes. These reasonable controls are exercised by college officials for the use of facilities to ensure the maximum use of the College for the purpose for which it was intended.

Therefore, anyone planning an activity at one of the colleges of the Dallas County Community College District which requires space to handle two or more persons to conduct an activity must have prior approval. Application forms to reserve space must be acquired through the Student Programs Office. This office also maintains a statement on procedures for reserving space.

(3) Speech and Advocacy: Students have the right of free expression and advocacy; however, the time, place, and manner of exercising speech and advocacy shall be regulated in such a manner to ensure a orderly conduct, non-interference with college functions or activities, and identification of sponsoring groups or individuals. Meetings must be registered with the Student Programs Office. An activity may be called a meeting when the following conditions prevail at the activity:

(a) When two or more persons are sitting, standing, or lounging so as to hear or see a presentation or discussion of a person or a group of persons.

(b) When any special effort to recruit an audience has preceeded the beginning of discussions or presentations.
(c) When a person or group of persons appears to be conducting a systematic discussion or presentation on a definable topic.

(4) Disruptive Activities: Any actitivity which interrupts the scheduled activities or processes of education may be classified as distruptive: thus, anyone who initiates in any way any gathering leading to disruptive activity will be violating college regulations and or state law.

The following conditions shall normally be sufficient to classify behavior as disruptive:

(a) Blocking or in any other way interfering with access to any facility of the College.
(b) Inciting others to violence and or participating in violent behavior, e.g., assault; loud or vulgar language spoken publicly; or any form of behavior acted out for the purpose of inciting and influencing others.
(c) Holding rallies, demonstrations, or any other form of public gathering without prior approval of the College.
(d) Conducting any activity which causes college officials to be drawn off their scheduled duties to intervene, supervise or or observe the activity in the interest of maintaining order at the College.

Furthermore, the Vice President of Student Development shall enforce the provisions of the Texas education Code, Section 4.30 (following)

Education Code Section 4.30 provides:

(a) No person or group of persons acting in concert may willfully engage in disruptive activity or disrupt a lawful assembly on the campus or property of any private or public school or institution of higher education or public vocation and technical school or institute.
(b) For the purposes of this section, disruptive activity means
(1) Obstructing or restraining the passage of persons in an exit, entrance, or hallway of any building without the authorization of the administration of the school;
(2) Seizing control of any building or portion of a building for the purpose of interfering with any administrative, educational, research, or other authorized activity;
(3) Preventing or attempting to prevent by force or violence or the threat of force or violence any lawful assembly authorized by the school administration;
(4) Distrupting by force or violence or the threat of force or violence a lawful assembly in progress; or
(5) Obstructing or restraining the passage of any person at an exit or entrance to said campus or porperty or preventing or attempting to prevent by force or violence or by threats thereof the ingress or egress of any person to or from said property of campus without the authorization of the administration of the school.
(c) For the purpose of this section, a lawful assembly is disrupted when any person in attendance is rendered incapable of participating in the assembly due to the use of force or violence or due to a reasonable fear that force or violence is likely to occur.
(d) A person who violates any provision of this section is guilty of a misdemeanor and upon conviction is punishable by a fine not to exceed $200 or by confinement in jail for not less than 10 days nor more than six months, or both.
(e) Any person who is convicted the third time of violating this section shall not thereafter be eligible to attend any school, college, or university receiving funds from the State of Texas for a period of two years from such third conviction.
(f) Nothing herein shall be construed to infringe upon any right of free speech or expression guaranteed by the Constitutions of the United States or the State of Texas.

(5) Drinking of Alcoholic Beverages: Each college of the Dallas County Community College District specifically forbids the drinking of or possession of alcoholic beverages on its campus.

(6) Drugs: Each college of the Dallas County Community College District specifically forbids the illegal possession, use, sale or purchase of drugs, narcotics, or hallucinogens on or off campus.

(7) Gambling: State law expressly forbids gambling of any kind on state property.

(8) Hazing: Each college of the Dallas County Community College District, as a matter of principle and because it is a violation of state law, is opposed to and will endeavor to prevent hazing activities which involve any of the following factors singly or in conjunction:

(a) Any actions which seriously imperil the physical well-being of any student (all walks and all calisthenics are held to be actions which seriously imperil the physical well-being of students and are, therefore, accordingly specifically prohibited).
(b) Activities which are by nature indecent, degrading, or morally offensive.
(c) Activities which by their nature may reasonably be assumed to have a degrading effect upon the mental or moral attitude of the persons participating therein.

The institutional policy is one discouraging all activities incompatible with the dignity of the college student and exercising disciplinary correction over such activities as escape from reasonable control, regulation, and decency. From the institution's point of view, the reasonablility for the control of hazing activities, if engaged in by an organization, rests in the elected and responsible officials of the group, as individuals, and in the group as a whole, since it sets and approves the policy to be followed in these matters. It is accordingly recommended that all groups be informed that both their officers and the group as a whole, will be held singularly and collectively responsible for any actions considered to be unreasonable, immoral, and irresponsible within the policy limits detailed above. Individual activity falling in this category shall be disciplinary action.

(9) Academic Dishonesty

(a) The Vice President of Student Development may initiate disciplinary proceedings against a student accused of academic dishonesty.
(b) "Academic dishonesty" includes, but is not limited to, cheating on a test, plagiarism and collusion.
(c) "Cheating on a test" includes:
(i) Copying from another student's test paper;
(ii) Using, during a test, materials not authorized by the person giving the test;
(iii) Collaborating with another student during a test without authority;
(iv) Knowingly using, buying, selling, stealing, transporting or soliciting in whole or part the contents of an unadministered test;
(v) Substituting for another student, or permitting another student to substitute for one's self, to take a test; and
(vi) Bribing another person to obtain an unadministered test or information about an unadministered test.
(d) "Plagiarism" means the appropriation of another's work and the unacknowledged incorporation of that work on one's written work offered for credit.
(e) "Collusion" means the unauthorized collaboration with another person in preparing written work offered for credit.

(10) Financial Transactions with the College

(a) No student may refuse to pay or fail to pay debt he owes to the College.
(b) No student may give the College a check, draft or order with intent to defraud the College.
(c) A student's failure to pay the College the amount due on a check, draft, or order, on or before the fifth class after the day the Business Office sends written notice that the drawee has rightfully refused payment on the check, draft or order, is prima facie evidence that the student intended to defraud the College.
(d) The Vice President of Student Development or designee may initiate disciplinary proceedings against a student who has allegedly violated the provisions of this section.

(11) Other Offenses

(a) The Vice President of Student Development may initiate disciplinary proceedings against a student who:
(i) Conducts himself in a manner that significantly interferes with college teaching, research, administration, disciplinary proceedings or other college activities, including its public service functions, or with other authorized activities on college premises;
(ii) Damages, defaces or destroys college property or property of a member of the college community or campus visitor;
(iii) Knowingly gives false information in response to requests from the College;
(iv) Engages in hazing, as defined by state law and college regulations;
(v) Forges, alters or misuses college documents, records or I.D. cards;
(vi) Violates college policies or regulations concerning parking, registration of student organizations, use of college facilities, or the time, place and manner of public expression;
(vii) Fails to comply with directions of college officials acting in the performance of their duties;
(viii) Conducts himself in a manner which adversely affects his suitability as a member of the academic community or endangers his own safety or the safety of others
(ix) Illegally possesses, uses, sells, or purchases drugs, narcotics, hallucinogens, or alcoholic beverages on or off campus;
(x) Commits any act which is classified as an indictable offense under either state or federal law.

4. Disciplinary Proceedings

a. Administrative Disposition

(1) Investigation, Conference and Complaint

(a) When the Vice President of Student Development Office receives information that a student has allegedly violated a board policy, college regulation, or administrative rule, the Vice President or a subordinate delegated by him shall investigate the alleged violation. After completing the preliminary investigation, the Vice President may:
(i) Dismiss the allegations as unfounded, either before or after conferring with the student; or
(ii) Proceed administratively and impose disciplinary action; or
(iii) Prepare a complaint based on the allegation for use in disciplinary hearings along with a list of witnesses and documentary evidence supporting the allegation.
(b) The President may take immediate interim disciplinary action, suspend the right of a student to be present on the campus and to attend classes, or otherwise alter the status of a student for violation of a board policy, college regulation, or administrative rule, when in the opinion of such official the interest of the College would best be served by such action.
(c) No person shall search a student's personal possessions for the purpose of enforcing this code unless the individual's prior permission has been obtained. Searches by law enforcement officers of such possessions shall be only as authorized by law.

(2) Summons

(a) A student may be summoned to appear in connection with an alleged violation by sending him a letter by certified mail, return receipt

requested, addressed to the student at his address appearing in the Registrar's Office records. It is the student's responsibility to immediately notify the Registrar's Office of any change of address.

(b) The letter shall direct the student to appear at a specified time and place not less than three class days after the date of the letter. The letter shall also describe briefly the alleged violation and shall state the Vice President of Student Development's intention to handle the allegation as a minor or major violation.

(c) The Vice President of Student Development may place on disciplinary probation a student who fails without good cause to comply with a letter of summons, or the Vice President may proceed against the student as stated below in the sections of **Disposition** and **Penalties.**

(3) Disposition

(a) At a conference with a student in connection with an alleged minor or major violation, the Vice President shall advise the student of his rights.

(b) A student may refuse administrative disposition of the alleged violation and, on refusal, is entitled to a hearing. If a student accepts administrative disposition, he shall sign a statement that he understands the nature of the charges, his right to a hearing. If a student accepts administrative disposition, he shall sign a statement that he understands the nature of the charges, his right to a hearing or to waive the same, the penalty imposed, and his waiver of the right of appeal.

(c) The Vice President of Student Development shall prepare an accurate, written summary of each administrative disposition and forward a copy to the student (and, if the student is a minor, to the parent or guardian of the student), to the Director of Student Programs and to the Director of Campus Security.

(d) The Vice President of Student Development may impose disciplinary action as follows:

(i) For minor violations, any action authorized by this code in the section on **Penalties** (from 1-8, i.e. Admonition through Suspension of eligibility).

(ii) For major violations, any action authorized by this code in the section on **Penalties** (from 1-11, i.e. Admonition through Expulsion).

b. Student Discipline Committee

(1) Composition; Organization

(a) When a student refuses administrative disposition of either a major or a minor violation, he is entitled to a hearing before the Student Discipline Committee. This request must be made in writing on or before the sixth working day following administrative disposition. The committee shall be composed of equal numbers of students, administrators and faculty of the College. The committee shall be appointed by the president for each hearing on a rotating basis or on a basis of availability.

(b) The Student Discipline Committee shall elect a chairman from the appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedure, but a majority of the committee members may override the chairman's ruling. All members of the committee are eligible to vote in the hearing.

(c) The chairman shall set the date, time, and place for the hearing and may summon witnesses, and require the production of documentary and other evidence.

(d) The Vice President of Student Development shall represent the College before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Vice President of Student Development may be assisted by legal counsel when in the opinion of the Vice President of Student Development the best interests of the student or the College would be served by such assistance.

(2) Notice

(a) The committee chairman shall by letter notify the student concerned of the date, time and place for the hearing. The letter shall specify a hearing date not less than three (3) nor more than ten (10) class days after the date of the letter. If the student is under 18 years of age, a copy of the letter shall be sent to the parents or guardian.

(b) The chairman may for good cause postpone the hearing so long as all interested parties are notified of the new hearing date, time and place.

(c) The Student Discipline Committee may hold a hearing at any time if the student has actual notice of the date, time, and place of the hearing, and consents in writing thereto, and the President, or his designated representative in his absence, states in writing to the committee that, because of extra-ordinary circumstances the requirements are inappropriate.

(d) The notice shall specify whether the charge or charges are considered minor violations or major violations, shall direct the student to appear before the committee on the date and at the time and place specified, and shall advise the student of the following rights:

(i) To a private hearing;

(ii) To appear alone or with legal counsel (if charges have been evaluated as a major violation or if the College is represented by legal counsel);

(iii) To have his parents or legal guardian present at the hearing;

(iv) To know the identity of each witness who will testify against him;

(v) To cause the committee to summon witnesses, require the production of documentary and other evidence possessed by the College, and to offer evidence and argue in his own behalf;

(vi) To cross-examine each witness who testifies against him;

(vii) To have a stenographer present at the hearing to make a stenographic transcript of the hearing, at the student's expense, but the student is not permitted to record the hearing by electronic means;

(viii) To appeal to the Faculty-Student Board of Review, subject to the limitations established by the **Faculty-Student Board of Review** section.

(e) The Vice President of Student Development may suspend a student who fails without good cause to comply with a letter sent under this section, or, at his discretion, the Vice President of Student Development may proceed with the hearing in the student's absence.

(3) Preliminary Matters

(a) Charges arising out of a single transaction or occurrence, against one or more students, may be heard together or, either at the option of the committee or upon request by one of the students-in-interest, separate hearings may be held.

(b) At least three (3) class days before the hearing date, the student concerned shall furnish the committee chairman with:

(i) The name of each witness he wants summoned and a description of all documentary and other evidence possessed by the College which he wants produced;

(ii) An objection that, if sustained by the chairman of the Student Discipline Committee, would prevent the hearing;

(iii) The name of the legal counsel, if any, who appear with him;

(iv) A request for a separate hearing, if any, and the grounds for such a request.

(c) When the hearing is set under waiver of notice or for other good cause determined by the committee chairman, the student concerned is entitled to furnish the information described in paragraph (b) hereof at any time before the hearing begins.

(4) Procedure

(a) The hearing shall be informal and the chairman shall provide reasonable opportunities for witnesses to be heard. The College may be represented by staff members of the Vice President of Student Development's Office, legal counsel and other persons designated by the President. The hearing shall be open to the public so long as space is available, but may include the following persons on the invitation of the student:

(i) Representatives of the College Council,

(ii) A staff member of the college newspaper;

(iii) Representatives of the Faculty Association;

(iv) Student's legal counsel, and

(v) Members of the student's immediate family.

(b) The committee shall proceed generally as follows during the hearing:

(i) The Vice President of Student Development shall read the complaint;

(ii) The Vice President of Student Development shall inform the student of his rights, as stated in the notice of hearing;

(iii) The Vice President of Student Development shall present the College's case;

(iv) The student may present his defense;

(v) The Vice President of Student Development and the student may present rebuttal evidence and argument;

(vi) The committee will vote the issue of whether or not there has been a violation of board policy, college regulation or administrative rule; if the committee finds the student has violated a board policy, college regulation or administrative rule, the committee will determine an appropriate penalty.

(vii) The committee shall inform the student of the decision and penalty, if any;

(viii) The committee shall state in writing each finding of a violation of board policy, college regulation or administrative rule, and the penalty determined. Each committee member concurring in the finding and penalty shall sign the statement. The committee may include in the statement its reasons for the finding and penalty.

(5) Evidence

(a) Legal rules of evidence shall not apply to hearings before the Student Discipline Committee, and the committee may admit and give probative effect to evidence that possesses probative value and is commonly accepted by reasonable men in the conduct of their affairs. The committee shall exclude irrelevant, immaterial and unduly repetitious evidence. The committee shall recognize as privileged communications between a student and a member of the professional staff of the Health Center, Counseling and Guidance Center, or the Office of the Vice President of Student Development where such communications were made in the course of performance of official duties and when the matters discussed were understood by the staff member and the student to be confidential. Committee members may freely question witnesses.

(b) The committee shall presume a student innocent of the alleged violation until it is convinced by clear and convincing evidence that the student violated a Board policy, college regulation or administrative rule.

(c) All evidence shall be offered to the committee during the hearing and made a part of the hearing record. Documentary evidence may be

admitted in the form of copies of extracts, or by incorporation by reference. Real evidence may be photographed or described.

(d) A student defendant may not be compelled to testify against himself.

(6) Record

(a) The hearing record shall include: a copy of the notice of hearing; all documentary and other evidence offered or admitted in evidence; written motions, pleas, and any other materials considered by the committee; and the committee's decisions.

(b) If notice of appeal is timely given as hereinafter provided, the Vice President of Student Development, at the direction of the committee chairman, shall send the record to the Board of Review, with a copy to the student appellant on or before the tenth class day after the notice of appeal is given.

b. Faculty-Student Board of Review

(1) Right to Appeal

(a) In those cases in which the disciplinary penalty imposed was as prescribed in the section on **Penalties,** (6) Restitution through (11) Expulsion, the student may appeal the decision of the Student Discipline Committee, or the decision of the President in an interim action to the Faculty-Student Board of Review. Disciplinary actions taken under the section on **Penalties,** (1) Admonition through (5) Bar against readmission, cannot be appealed beyond the Student Discipline Committee. A student appeals by giving written notice to the Vice President of Student Development on or before the third class day after the day the decision or action is announced. This notice may be informal, but shall contain the student's name, the date of the decision or action, the name of his legal counsel, if any, and a simple request for appeal.

(b) Notice of appeal timely given suspends the imposition of penalty until the appeal is finally decided, but interim action may be taken as authorized under the section on **Disciplinary Disposition** which authorizes the President to take immediate interim disciplinary action.

(2) Board Composition

(a) The President shall appoint Boards of Review to hear appeals under this code. Each such board shall have three faculty representatives and two students appointed by the President in alphabetical rotation from available members, of the review panel.

(b) The review panel shall have twenty-five (25) members, selected as follows:

(i) Fifteen (15) representatives from the faculty, recommended by the President of the Faculty Association and appointed by the President of the College for three-year staggered terms.

(ii) Ten (10) students shall be appointed by the President of the College for one-year terms. Student members must have an overall 2.0 average on all college work attempted at the time of the nomination and must not have a discipline case pending.

(c) The President shall instruct the Board of Review members on student disciplinary policies, rules, and hearing procedures as soon as practicable after the members are appointed.

(3) Consideration of Appeal

(a) The Board of Review shall consider each appeal on the record of the Student Discipline Committee and for the good cause shown, original evidence and newly discovered evidence may be presented.

(b) Upon timely appeal, the President shall select a Board of Review as aforesaid and shall notify the student appellant and the Vice President of Student Development in writing of the time, date, and place of the hearing as determined by the President.

(c) The President will designate one of the members of the Board of Review to serve as chairman.

(d) Appellate hearings will follow the procedure prescribed in this code.

(e) The Board of Review will hear oral argument and receive written briefs from the student appellant and Vice President of Student Development or their representatives.

(f) The Board of Review, after considering the appeal, may affirm the Student Discipline Committee's decision, reduce the penalty determined or otherwise modify the decision of the Student Discipline Committee, or dismiss the complaint.

(g) The Board of Review shall modify or set aside the findings of violation, penalty or both, if the substantive rights of the student were prejudiced because the Student Discipline Committee's finding of facts, conclusions or decisions were:

(i) In violation of a federal or state law, board policy, college regulation, administrative rule, or authorized procedure.

(ii) Clearly erroneous in view of the reliable probative and substantial evidence on the complete hearing; or

(iii) Capricious, or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

(h) The Board of Review may not increase a penalty assessed by the Student Discipline Committee.

(4) Petition for Administrative Review

(a) A student is entitled to appeal in writing to the Board of Trustees through the President, the Chancellor, and the Chairman of the Board. The President shall automatically review every penalty of expulsion.

(b) A petition for review is informal but shall contain, in addition to the information required, notice of appeal, the date of the Board of Review's action on the student's appeal and his reasons for disagreeing with the board's action. A student shall file his petition with the President on or before the third class day after the day the Board of Review announces its action on the appeal. If the President rejects the petition, and the student appellant wishes to petition the Chancellor, he shall file the petition with the Chancellor on or before the third class day after the President rejects the petition in writing.

(c) If the Chancellor rejects the petition, and the student appellant wishes to petition the Board of Trustees, he shall file the petition with the Chairman of said Board on or before the third class day after the day after the Chancellor rejects the petition in writing.

(d) The President, the Chancellor, and the Board of Trustees in their review may take any action that the Student Discipline Committee is authorized to take. They may receive written briefs and hear oral argument during their review.

5. Penalties

a. Authorized Disciplinary Penalties:

The Vice President of Student Development, the Student Discipline Committee, or the Faculty-Student Board of Review may impose one or more of the following penalties for violation of a board policy, college regulation, or administrative rule:

(1) Admonition
(2) Warning probation
(3) Disciplinary probation
(4) Withholding of transcript or degree
(5) Bar against readmission
(6) Restitution
(7) Suspension of rights or privileges
(8) Suspension of eligibility for official athletic and non-athletic extracurricular activities
(9) Denial of degree
(10) Suspension from the College
(11) Expulsion from the College

b. Definitions:

The following definitions apply to the penalties provided above:

(1) An "Admonition" is a written reprimand from the Vice President of Student Development to the student on whom it is imposed.

(2) "Warning probation" indicates that further violations may result in suspension. Disciplinary probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires.

(3) "Disciplinary probation" indicates that further violations may result in suspension. Disciplinary probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires. Students may be placed on disciplinary probation for engaging in activities such as the following, being intoxicated, misuse of I.D. card, creating a disturbance in or on campus facilities, and gambling.

(4) "Withholding of transcript of degree" is imposed upon a student who fails to pay a debt owed the College or who has a disciplinary case pending final disposition. The penalty terminates on payment of the debt or final disposition of the case.

(5) "Bar against readmission" is imposed on a student who has left the College on enforced withdrawal for disciplinary reasons.

(6) "Restitution" is reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.

(7) "Disciplinary suspension" may be either or both of the following:

(a) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions to fit the particular case.

(b) Suspension of eligibility for official athletic and non-athletic extracurricular activities: prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization; taking part in a registered student organization's activities, or attending its meetings or functions; and from participating in an official athletic or non-athletic extracurricular activity. Such suspension may be imposed for any length of time up to one calendar year. Students may be placed on disciplinary suspension for engaging in activities such as the following: having intoxicating beverages in any college facility; destroying state property or student's personal property; giving false information in response to requests from the College; instigating a disturbance or riot; stealing; possession, use, sale or purchase of illegal drugs on or off campus; any attempt at bodily harm, which includes taking an overdose of pills or any other act where emergency medical attention is required; and conviction of any act which is classified as a misdemeanor or felony under state or federal law.

(8) "Denial of degree" may be imposed on a student found guilty of scholastic dishonesty and may be imposed for any length of time up to and including permanent denial.

(9) "Suspension from the College" prohibits, during the period of suspension, the student on whom it is imposed from being initiated into an honorary or service organization; from entering the college campus except in response to an official summons; and from registering, either for credit or for non-credit, for scholastic work at or through the College.

(10) "Expulsion" is permanent severance from the College. This policy shall apply uniformly to all of the colleges of the Dallas County Community College District.

In the event any portion of this policy conflicts with the state law of Texas, the state law shall be followed.

6. Parking and Traffic

a. Reserved Parking Areas

These reserved areas are designated by signs; all other parking areas are open

and are non-reserved.
(1) Handicapped persons, college visitors
(2) Motorcycles

b. Tow Away Areas
(1) Handicapped persons area
(2) Fire lanes
(3) Parking or driving on campus in areas other than those designated for vehicular traffic
(4) Parking in "No Parking" zone
(5) Parking on courtyards

c. General Information
(1) College parking areas are regulated by state, municipal and campus statutes. College campus officers are commissioned to cite violators.
(2) All vehicles which park on the campus of the College must bear a parking decal emblem. The parking decal may be secured from the College Security Division or during fall and spring registration periods. No fee is charged for the decal.
(3) Placement of decal emblem:
(a) Cars: lower left corner of rear bumper.
(b) Motorcycles, motor bikes, etc.: gas tank
(4) Campus Speed Limits*
(a) 10 M.P.H. in parking areas
(b) 20 M.P.M. elsewhere on campus.
*Unless otherwise posted.
(5) All handicapped parking must be authorized and handicapped decal displayed on vehicle prior to parking in handicapped reserved areas.

d. Campus Parking and Driving Regulations
(1) The colleges, acting by and through their Board of Trustees are authorized by state law to promulgate, adopt and enforce campus parking and driving regulations. Campus officers are commissioned police officers, and as such, all traffic and criminal violations are within their jurisdiction.
(2) The College has authority for the issuance and use of suitable vehicle identification insignia as permits to park and drive on campus. Permits may be suspended for the violation of campus parking and driving regulations.
(3) The College campus officers have the authority to issue the traffic tickets and summons of type now used by the Texas Highway Patrol. It is the general policy to issue these tickets for violations by visitors and persons holding no college permit. These tickets are returnable to the Justice of Peace Court in which the college is located. Furthermore, the campus officers are authorized to issue campus citations which are returnable to the Department of Safety and Security at the Business Office.
(4) Under the direction of the College President, the Department of Safety and Security shall post proper traffic and parking signs.
(5) Each student shall file an application for a parking permit with the Security Office upon forms prescribed by the College.
(6) These traffic regulations apply not only to automobiles but to motor bikes, motorcycles and ordinary bicycles.

e. Procedures
(1) All motor vehicles must be parked in the parking lots between the parking lines. Parking in all other areas, such as campus drives, curb areas, courtyards, and loading zones, will be cited.
(2) Citations may be issued for:
(a) Speeding (the campus speed limit is 20 M.P.H. except where posted)
(b) Reckless driving
(c) Double parking
(d) Driving wrong way in one-way lane
(e) Parking in "No Parking" lane
(f) Improper parking (parts of car outside the limits of a parking space)
(g) Parking in wrong area (for example, handicapped or "No Parking" areas)
(h) Parking trailers or boats on campus
(i) Parking or driving on campus in areas other than those designated for vehicular traffic
(j) Violations of all state statues regulating vehicular traffic
(k) Failure to display parking permit
(l) Collision with another vehicle or any sign or immovable object
(3) A citation is notice that a student's parking permit has been suspended. The service charge to reinstate the parking and driving permit must be paid at the Business Office. Failure to pay the service charge will result in the impoundment of a vehicle that is parked on campus and whose decal has been suspended.
(4) A person who receives a campus citation shall have the right within ten days to appeal in writing to the Vice President of Business, accompanied by whatever reason the person feels that the citation should not have been issued.
(5) If it becomes necessary to remove an improperly parked vehicle, an independent wrecker operator may be called. The owner of the vehicle will be charged the wrecker fee in addition to the service charge for reinstatement of driving and parking privileges.
(6) Visitors to campus are also required to follow college regulations.
(7) The service charge for reinstatement of the parking and driving permit will be $5.00 per citation.
(8) Four citations per car during an academic year will result in permanent suspension of parking and driving permit for the balance of that academic year. A new total commences on August 1, of each year. A fee may be assessed for unauthorized parking in an area designated for handicapped persons. (Not to exceed $200).
(9) The College is not responsible for the theft of vehicles on campus or their contents.

Student Grievance Procedure

A copy of the Student Grievance Procedure designed to provide students with the opportunity to question conditions which the student believes impede his/her education or instruction is available in the office of the Vice President of Student Development.

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

1988-89 Technical/Occupational Programs Offered On Our Campuses

Career Education Programs	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Accounting Associate	•	•	•	•	•	•	•
Advertising Art	•						
Air Conditioning & Refrigeration—Residential		•	•			•	
Air Conditioning & Refrigeration Technology			•				
Animal Medical Technology		•					
Apparel Design				•			
Architectural Technology				•			
Associate Degree Nursing	•			•			
LVN Option				•			
Auto Body Technology			•				
Automotive Technology		•	•				
Dealership-Sponsored Technician	•						
Electronic Engine Control Technician	•						
Service Technician	•						
Automotive Technology Apprenticeship		•					
Aviation Technology							
Career Pilot					•		
Air Cargo Transport					•		
Air Traffic Control					•		
Aircraft Dispatcher					•		
Airline Marketing					•		
Fixed Base Operations/Airport Management					•		
Carpentry						•	
Child Development Associate	•		•				
Administrative	•		•				
CDA Training Certificate	•		•				
Infant-Toddler	•		•				
Special Child Certificate	•		•				
Commercial Music							
Arranger/Composer/Copyist		•					
Music Retailing		•					
Performing Musician		•					
Recording Technology		•					
Computer Information Systems							
Business Computer Assistant				•			
Business Computer Information Systems	•	•	•	•	•	•	•
Business Computer Programmer	•	•	•	•	•	•	•
Computer Center Specialist				•			
Computer Operations Technician				•			
Personal Computer Support				•	•		•
Construction Management & Technology							•
Criminal Justice				•			
Dental Assisting Technology				•			
Diesel Mechanics						•	
Digital Electronics			•				
Drafting & Computer Aided Design			•		•		
Electronic Design			•				
Educational Personnel							•
Bilingual/ESL							•
Educational Assistant							•
Electrical Technology						•	
Electronic Telecommunications			•		•	•	
Electronics Technology					•	•	
Avionics					•		
Enginnering Technology							
Electro-Mechanical	•						•
Electronic Controls	•						•
Electronic Quality Control	•						•

Career Education Programs	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Industrial Technology	•				•		
Manufacturing Engineering	•						•
Mechanical Quality Control							•
Mechanical Technology							•
Quality Control							•
Robotics Technology					•		
Robotics and Fluid Power	•				•		•
Fashion Marketing	•	•					
Financial Management							•
Fire Protection Technology				•			
Food And Hospitality Service				•			
Graphic Communications			•				
Graphic Arts			•				
Interior Design				•			
Interpreter Training Program			•				
Sign Language Studies			•				
Legal Assistant				•			
Machine Parts Inspection					•		
Machine Shop					•		
Management Careers							
Administrative Management	•	•	•	•	•	•	•
Mid-Management	•	•	•	•	•	•	•
Postal Service Administration					•		
Sales, Marketing & Retail Management	•	•					
Small Business Management		•			•		•
Transportation and Logistics Management			•				
Medical Assisting Technology				•			
Medical Laboratory Technology				•			
Medical Transcription				•			
Motorcycle Mechanics		•					
Office Careers							
Administrative Assistant	•	•	•	•	•	•	•
Legal Secretary	•	•	•	•	•	•	•
General Office Certificate	•	•	•	•	•	•	•
Office Information Systems Specialist	•	•	•	•	•	•	•
Word Processing Operator	•	•	•	•	•	•	•
Ornamental Horticulture Technology							
Greenhouse Florist							•
Landscape Management							•
Landscape Nursery							•
Florist							•
Landscape Gardener							•
Outboard Marine Engine Mechanics		•					
Pattern Design				•			
Physical Fitness Technology						•	
Radiologic Sciences							
Diagnostic Medical Sonography				•			
Radiography Technology				•			
Real Estate						•	•
Respiratory Therapy Technology				•			
Small Engine Mechanics		•					
Social Work Associate			•				
Human Services			•				
Surgical Technology				•			
Surgical Technology for Graduate R.N.				•			
Video Technology						•	
Vocational Nursing				•			
Welding Technology					•		

BHC — Brookhaven College
CVC — Cedar Valley College
EFC — Eastfield College
ECC — El Centro College
MVC — Mountain View College
NLC — North Lake College
RLC — Richland College

RECIPROCAL TUITION AGREEMENT

TCJC PROGRAMS

The following programs offered by Tarrant County Junior College may be taken by Dallas County residents at in-county tuition rates:

Program	Campus*
Agribusiness Technology	NORTHWEST
Banking and Finance	NORTHEAST
Business	NORTHEAST, NORTHWEST, SOUTH
Civil/Construction	NORTHEAST
Dental Hygiene	NORTHEAST
Emergency Medical Technology	NORTHEAST
Fashion Merchandising	NORTHEAST
Industrial Supervision	SOUTH
Major Appliance Repair	SOUTH
Marketing	NORTHEAST, NORTHWEST, SOUTH
Media Communications	NORTHEAST
Medical Record Technology	NORTHEAST
Mental Health/Mental Retardation Technology	NORTHEAST
Motorcycle Service Technician	NORTHWEST
Nondestructive Evaluation Technology	SOUTH
Physical Therapist Assistant	NORTHEAST
Consumer Electronics Technician	SOUTH
Small Gasoline Engine Repair	NORTHEAST
Surveying Technology	NORTHEAST

ACCOUNTING ASSOCIATE

Offered at all seven campuses

(Associate Degree)

The Accounting Associate two-year program is designed to prepare a student for a career as a junior accountant in business, industry and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles.

The Associate in Applied Arts and Sciences Degree is awarded for successful completion of at least 66 credit hours as outlined below. Students desiring a less comprehensive program that emphasizes bookkeeping procedures and practices should consider the General Office Certificate with elective emphasis on accounting careers. The General Office Certificate is available in the Office Careers Program.

		CREDIT HOURS
SEMESTER I		
ACC 201	Principles of Accounting I	3
BUS 105	Introduction to Business	3
ENG 101	Composition I	3
MTH 130	Business Mathematics or	
MTH 111	Mathematics for Business and Economics	3
OFC 160	Office Calculating Machines	3
		15
SEMESTER II		
ACC 202	Principles of Accounting II	3
ENG 102	Composition II	3
CIS 103	Introduction to Computer Information Systems	3
MGT 136	Principles of Management	3
OFC 172	Beginning Typing*	3
SC 101	Introduction to Speech Communication	3
		18
SEMESTER III		
ACC 203	Intermediate Accounting I	3
ACC 204	Managerial Accounting	3
ACC 250	Microcomputer-Based Accounting Applications	3
ECO 201	Principles of Economics I	3
†Elective		3
ACC 803	Cooperative Work Experience or	
ACC 804	Cooperative Work Experience or	
†††Elective		3-4
		18-19
SEMESTER IV		
ACC 238	Cost Accounting or	
ACC 239	Income Tax Accounting	3
BUS 234	Business Law	3
ECO 202	Principles of Economics II	3
OFC 231	Business Communications	3
††Elective		3
		15
Minimum Hours Required		66

†Elective must be selected from the following:

ANT 100	Introduction to Anthropology	3
GVT 201	American Government	3
GVT 202	American Government	3
HST 101	History of the United States	3
HST 102	History of the United States	3
HD 105	Basic Process of Interpersonal Relationships	3
HD 106	Personal and Social Growth	3
PSY 101	Introduction to Psychology	3
PSY 103	Human Sexuality	3
PSY 131	Applied Psychology and Human Relations	3
SOC 101	Introduction to Sociology	3
SOC 102	Social Problems	3

††Elective must be selected from the following:

ART 104	Art Appreciation	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

†††Electives may be selected from the following:

Any CIS or CS Programming Course		
ACC 205	Business Finance	3
ACC 207	Intermediate Accounting II	3
ACC 238	Cost Accounting	3
ACC 239	Income Tax Accounting	3
ACC 703-713	Cooperative Work Experience	3
ACC 704-714	Cooperative Work Experience	4
ACC 813	Cooperative Work Experience	3
ACC 814	Cooperative Work Experience	4
BUS 143	Personal Finance	3
BUS 237	Organizational Behavior	3
CIS 262	Contemporary Topics in Computer Information Systems	3
CIS 264	Special Topics in Computer Information Systems	4
MKT 206	Principles of Marketing	3

*Students who can demonstrate proficiency by previous training, experience, or placement tests may substitute a course from the electives††† listed for this program.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

Eastfield only

(Associate Degree)

This program furnishes both the theory and practice required to qualify a person for employment in the various areas of the air conditioning and refrigeration industry. Special emphasis is placed on commercial and industrial air conditioning and refrigeration during the second year. Hands-on experience stresses operation and troubleshooting of medium and low temperature refrigeration and chilled water air conditioning systems.

		CREDIT HOURS
SEMESTER I		
ACR 120	Principles of Refrigeration or	6
ACR 121	Principles of Refrigeration I and	(3)
ACR 122	Principles of Refrigeration II	(3)
ACR 125	Principles of Electricity or	6
ACR 126	Principles of Electricity I and	(3)
ACR 127	Principles of Electricity II	(3)
MTH 195	Technical Mathematics I or	
MTH 139	Applied Mathematics	3
		15
SEMESTER II		
ACR 130	Residential Cooling Systems or	6
ACR 131	Residential Cooling Systems I and	(3)
ACR 132	Residential Cooling Systems II	(3)
ACR 140	Residential Heating Systems or	6
ACR 141	Residential Heating Systems I and	(3)
ACR 142	Residential Heating Systems II	(3)
COM 131	Applied Communications or	
ENG 101	Composition I	3
		15
SEMESTER III		
ACR 221	Refrigeration Loads	3
ACR 223	Medium Temperature Refrigeration Systems	3
ACR 227	Low Temperature Refrigeration Systems	3
ACR 229	Refrigeration Equipment Selection	3
PSY 131	Applied Psychology and Human Relations or	
PSY 101	Introduction to Psychology	3
+ Elective		3-4
		18-19
SEMESTER IV		
ACR 222	Advanced Systems	3
ACR 224	System Testing and Balancing	3
ACR 228	Air Conditioning System Equipment Selection	3
ACR 230	Energy Conservation	3
ACR 803	Cooperative Work Experience or	3
++ Elective		(2-6)
SC 101	Introduction to Speech Communication	3
		17-21
Minimum Hours Required		66

+ Electives-must be selected from the following:

ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
BUS 143	Personal Finance	3
CIS 103	Introduction to Computer Information Systems	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
MUS 104	Music Appreciation	3
PHY 131	Applied Physics	4
SPA 101	Beginning Spanish	4

+ + Electives—must be selected from the following:

ACR 109	Contemporary Topics I	2
ACR 110	Contemporary Topics II	2
ACR 200	Contractor Estimating	6
ACR 209	Contractor Estimating I	3
ACR 210	Contractor Estimating II	3
ACR 212	System Servicing	6
ACR 213	System Servicing I	3
ACR 214	System Servicing II	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

AIR CONDITIONING AND REFRIGERATION—RESIDENTIAL

Cedar Valley, Eastfield, and North Lake only

(Associate Degree)

This program is designed to train students to meet employment requirements in the field of residential air conditioning. This will include the installation, repair and maintenance of residential air conditioning equipment. Included in this program is the study of residential air conditioners, heat pumps, gas and electric furnaces, humidifiers, and the design of residential air conditioning systems. Throughout the entire program an emphasis is placed on current techniques used by service technicians.

		CREDIT HOURS
SEMESTER I		
ACR 120	Principles of Refrigeration or	6
ACR 121	Principles of Refrigeration I and	(3)
ACR 122	Principles of Refrigeration II	(3)
ACR 125	Principles of Electricity or	6
ACR 126	Principles of Electricity I and	(3)
ACR 127	Principles of Electricity II	(3)
MTH 195	Technical Mathematics I or	
MTH 139	Applied Mathematics	3
		15
SEMESTER II		
ACR 130	Residential Cooling Systems or	6
ACR 131	Residential Cooling Systems I and	(3)
ACR 132	Residential Cooling Systems II	(3)
ACR 140	Residential Heating Systems or	6
ACR 141	Residential Heating Systems I and	(3)
ACR 142	Residential Heating Systems II	(3)
PHY 131	Applied Physics	4
		16
SEMESTER III		
ACR 200	Contractor Estimating or	6
ACR 209	Contractor Estimating I and	(3)
ACR 210	Contractor Estimating II	(3)
ACR 212	System Servicing or	6
ACR 213	System Servicing I and	(3)
ACR 214	System Servicing II	(3)
COM 131	Applied Communications or	
ENG 101	Composition I	3
		15
SEMESTER IV		
SC 101	Introduction to Speech Communication	3
PSY 131	Applied Psychology and Human Relations	3
+ Electives		8-9
		14-15
Minimum Hours Required:		60

+ Electives—must be selected from the following:

Any ACR (Air Conditioning and Refrigeration) course		
ACR 109	Contemporary Topics I	2
ACR 110	Contemporary Topics II	3
ACR 221	Refrigeration Loads	3
ACR 222	Advanced Systems	3
ACR 223	Medium Temperature Refrigeration Systems	3
ACR 224	System Testing and Balancing	3
ACR 227	Low Temperature Refrigeration Systems	3
ACR 228	Air Conditioning System Equipment Selection	3
ACR 229	Refrigeration Equipment Selection	3
ACR 230	Energy Conservation	3
ACR 703-713	Cooperative Work Experience	3
ACR 704-714	Cooperative Work Experience	4
ACR 803-813	Cooperative Work Experience	3
ACR 804-814	Cooperative Work Experience	4
ACC 131	Bookkeeping I	3
BPR 177	Blueprint Reading	2
BUS 105	Introduction to Business	3
CIS 103	Introduction to Computer Information Systems	3
DFT 182	Technician Drafting	2
MGT 153	Small Business Management	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

AIR CONDITIONING AND REFRIGERATION—RESIDENTIAL

Cedar Valley, Eastfield, and North Lake only

(Certificate)

This program is designed to train students to meet entry level requirements in the field of air conditioning. This will include the installation, repair and maintenance of residential air conditioning equipment. Included in this program is the study of residential air conditioners, humidifiers, heat pumps, gas and electric furnaces. Throughout the entire program an emphasis is placed on current techniques used by service technicians.

		CREDIT HOURS
SEMESTER I		
ACR 120	Principles of Refrigeration or	6
ACR 121	Principles of Refrigeration I and	(3)
ACR 122	Principles of Refrigeration II	(3)
ACR 125	Principles of Electricity or	6
ACR 126	Principles of Electricity I and	(3)
ACR 127	Principles of Electricity II	(3)
MTH 195	Technical Mathematics I or	
MTH 139	Applied Mathematics	3
		15
SEMESTER II		
ACR 130	Residential Cooling Systems or	6
ACR 131	Residential Cooling Systems I and	(3)
ACR 132	Residential Cooling Systems II	(3)
ACR 140	Residential Heating Systems or	6
ACR 141	Residential Heating Systems I and	(3)
ACR 142	Residential Heating Systems II	(3)
+ Elective		3-4
		15-16
Minimum Hours Required:		30

+ Elective—must be selected from the following:

ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
CIS 103	Introduction to Computer Information Systems	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
PHY 131	Applied Physics	4
SPA 101	Beginning Spanish	4

AUTO BODY TECHNOLOGY

Eastfield only

(Associate Degree)

This program introduces the student to all facets of auto body repair and painting. Emphasis is placed upon the development of the necessary skills and knowledge required to function successfully in this industry. The program of study includes technical aspects of metal behavior combined with correct repair and refinishing procedures.

		CREDIT HOURS
SEMESTER I		
*AB 111	Basic Metal Principles	3
*AB 112	Applied Basic Metal Principles	2
*AB 121	Basic Paint Principles	3
*AB 122	Applied Basic Paint Principles	2
AB 245	Welding for Auto Body	3
MTH 195	Technical Mathematics I	3
		16
SEMESTER II		
*AB 113	Minor Metal Repair	3
*AB 114	Applied Minor Metal Repair	2
*AB 123	Paint Blending and Spot Repair Techniques	3
*AB 124	Applied Paint Blending and Spot Repair Techniques	2
COM 131 ENG 101	Applied Communications or Composition I	3
PHY 131	Applied Physics	4
		17
SEMESTER III		
*AB 211	Major Panel Replacement	3
*AB 212	Applied Major Panel Replacement	2
AB 213	Major Collision and Frame Repair	3
SC 101	Introduction to Speech Communication	3
+ Elective		3
		14
SEMESTER IV		
AB 139	Body Shop Operations	3
AB 221	Advanced Paint Techniques	3
AB 222	Applied Advanced Paint Techniques	2
AB 235	Estimating	3
AB 803 AB 804	Cooperative Work Experience or Cooperative Work Experience	3 (4)
		14-15
Minimum Hours Required:		61

+ Elective—must be selected from the following:

ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
CIS 103	Introduction to Computer Information Systems	3
GVT 201	American Government	3
HST 101	History of the United States	3
HD 105	Basic Processes of Interpersonal Relationships	3
HD 106	Personal and Social Growth	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
PSY 131	Applied Psychology and Human Relations	3

*Must be enrolled concurrently in: AB 111/112, AB 113/114, AB 121/122, AB 123/124, and AB 211/212.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

AUTO BODY TECHNOLOGY

Eastfield only

(Certificate)

This program is designed to train a student in all facets of auto body repair and painting. Emphasis is placed upon those skills needed by the student to become a successful auto body repair person. This program offers the student a certificate in auto body technology upon successful completion of the program.

		CREDIT HOURS
SEMESTER I		
*AB 111	Basic Metal Principles	3
*AB 112	Applied Basic Metal Principles	2
*AB 121	Basic Paint Principles	3
*AB 122	Applied Basic Paint Principles	2
*AB 123	Paint Blending and Spot Repair Techniques	3
*AB 124	Applied Paint Blending and Spot Repair Techniques	2
AB 245	Welding for Auto Body	3
		18
SEMESTER II		
*AB 113	Minor Metal Repair	3
*AB 114	Applied Minor Metal Repair	2
*AB 211	Major Panel Replacement	3
*AB 212	Applied Major Panel Replacement	2
AB 221	Advanced Paint Techniques	3
AB 222	Applied Advanced Paint Techniques	2
		15
SEMESTER III		
AB 139	Body Shop Operations	3
AB 213	Major Collision and Frame Repair	3
AB 235	Estimating	3
AB 803 AB 804	Cooperative Work Experience or Cooperative Work Experience	3 (4)
		12-13
Minimum Hours Required:		45

*Must be enrolled concurrently: AB 111/112, AB 113/114, AB 121/122, AB 123/124, and AB 211/212.

AUTOMOTIVE TECHNOLOGY

Cedar Valley and Eastfield only

(Associate Degree)

The purpose of this program is to prepare students for entry level employment as an automotive technician. This program of study will include theory, diagnosis, repair, overhaul and maintenance of automobiles. Emphasis is placed on operational theory, practical skills and accepted shop procedures.

		CREDIT HOURS
SEMESTER I		
AT 109	Minor Vehicle Services	3
AT 110	Engine Repair I	4
AT 112	Engine Repair II	4
COM 131 / ENG 101	Applied Communications or Composition I	3
MTH 195	Technical Mathematics I	3
		17
SEMESTER II		
AT 114	Engine Analysis and Tune-Up	4
AT 116	Fuel and Emission Systems	4
AT 119	Electrical Systems	3
PHY 131	Applied Physics	4
SC 101	Introduction to Speech Communication	3
		18
SEMESTER III		
AT 222	Heating and Air Conditioning	3
AT 223	Brake Systems	4
AT 225	Front End Systems	4
AT 248	Automotive Electronics	3
+ Elective		3
		17
SEMESTER IV		
AT 227	Standard Transmissions and Drive Trains	4
AT 229	Automatic Transmissions I	4
AT 231	Automatic Transmissions II	4
AT 703 / AT 714	Cooperative Work Experience or Cooperative Work Experience	3 / (4)
+ + Elective		3
		18-19
Minimum Hours Required:		70

+ Elective—must be selected from the following:

AB 245	Welding for Auto Body	3
AT 212	Special Automotive Applications	1
AT 803 / AT 814	Cooperative Work Experience or Cooperative Work Experience	3 / (4)
BUS 105	Introduction to Business	3
WE 101	Basic Welding and Cutting Practices	3

+ + Elective—must be selected from the following:

ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
CIS 103	Introduction to Computer Information Systems	3
GVT 201	American Government	3
HST 101	History of the United States	3
HD 105	Basic Processes of Interpersonal Relationship	3
HD 106	Personal and Social Growth	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
PSY 131	Applied Psychology and Human Relations	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

AUTOMOTIVE TECHNOLOGY

Cedar Valley and Eastfield only

(Certificate)

The purpose of this program is to train persons for entry level positions in the field of automotive technology. A certificate is issued upon successful completion of the program.

		CREDIT HOURS
SEMESTER I		
AT 109	Minor Vehicle Services	3
AT 110	Engine Repair I	4
AT 112	Engine Repair II	4
		11
SEMESTER II		
AT 114	Engine Analysis and Tune-Up	4
AT 116	Fuel and Emission Systems	4
AT 119	Electrical Systems	3
		11
SEMESTER III		
AT 222	Heating and Air Conditioning	3
AT 223	Brake Systems	4
AT 225	Front End Systems	4
AT 248	Automotive Electronics	3
		14
SEMESTER IV		
AT 227	Standard Transmissions and Drive Trains	4
AT 229	Automatic Transmissions I	4
AT 231	Automatic Transmissions II	4
AT 703 / AT 714	Cooperative Work Experience or Cooperative Work Experience	3 / (4)
		15-16
Minimum Hours Required:		51

CHILD DEVELOPMENT ASSOCIATE

Brookhaven and Eastfield only

(Associate Degree)

The Child Development Program offers students an in-depth study of young children from birth to twelve years of age in conjunction with the Parent/Child Study Center that provides students day-to-day involvement with young children. The program is designed to enable students to provide an optimal learning and caring environment for children.

		CREDIT HOURS
SEMESTER I		
**CD 135	Introduction to Early Childhood Programs and Services	4
**CD 140	Early Childhood Development, 0-3 Years	3
COM 131	Applied Communications or	
ENG 101	Composition I	3
SOC 101	Introduction to Sociology	3
+ Elective		3-4
		16-17
SEMESTER II		
**CD 137	Early Childhood Learning Environments, Activities and Materials	4
**CD 141	Early Childhood Development, 3-5 Years	3
CD 812	Cooperative Work Experience or	2
CD 813	Cooperative Work Experience or	(3)
CD 814	Cooperative Work Experience	(4)
PSY 101	Introduction to Psychology or	
PSY 131	Applied Psychology and Human Relations	3
+ Elective		3-4
		15-18
SEMESTER III		
*CD 100	Directed Participation in Early Childhood Programs or	
CD 233	Directed Participation in Early Childhood Programs	4
**CD 239	Studies in Child Guidance	3
GVT 201	American Government	3
SC 101	Introduction to Speech Communication	3
+ Elective		2-4
+ + Elective		3
		18-22
SEMESTER IV		
**CD 150	Nutrition Health and Safety of the Young Child	3
*CD 200	Application of Child Development Learning Theories or	
CD 244	Application of Child Development Learning Theories	4
MTH 115	College Mathematics or	
MTH 117	Fundamental Concepts of Mathematics for Elementary Teachers or	
MTH 130	Business Mathematics or	
MTH 139	Applied Mathematics	3
SOC 203	Marriage and the Family	3
+ + + Elective		3-4
		16-17

Minimum Hours Required: 65

+ Electives—must be selected from the following:

CD 125	Infant and Toddler Learning Environments, Activities and Materials	4
CD 127	Early Childhood Development, 5-12 Years	3
CD 203	Parents and the Child Caregiver/Teacher	3
CD 209	Early Childhood Development Special Projects	3
CD 236	The Special Child: Growth and Development	3
CD 250	Supportive Services for Exceptional Children	3
CD 251	Learning Programs for Children with Special Needs	3
CD 253	Abuse Within the Family	3
CD 254	Introduction to Administration of Child Care Programs	3
CD 256	Advanced Administrative Practices for Child Care	3
CD 812	Cooperative Work Experience or	(2)
CD 813	Cooperative Work Experience or	(3)
CD 814	Cooperative Work Experience	4
PEH 108	Social Recreation	3

+ + Elective—must be selected from the following:

ACC 131	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
BUS 105	Introduction to Business	3
CIS 103	Introduction to Computer Information Systems	3
MGT 153	Small Business Management	3
OFC 172	Beginning Typing	3

+ + + Elective—must be selected from the following:

ART 104	Art Appreciation	3
BIO 115	Biological Science	4
MUS 104	Music Appreciation	3
SPA 101	Beginning Spanish	4
ITP 141	Beginning Sign Language	4

*CD 100 and CD 200 are taken as one-hour courses concurrently with the six (6) required CD courses (**) and two (2) of the following CD electives: CD 125, CD 127, CD 203, CD 254, or CD 256. CD 100 and CD 200 are repeated for credit for a total of eight (8) hours and are equivalent to CD 233 and CD 244.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

CHILD DEVELOPMENT — ADMINISTRATIVE OPTION

Brookhaven and Eastfield only

(Certificate)

This certificate program will provide an opportunity for the student to study administrative procedures for child care facilities.

		CREDIT HOURS
SEMESTER I		
CD 135	Introduction to Early Childhood Programs and Services	4
CD 140	Early Childhood Development, 0-3 Years or	
CD 141	Early Childhood Development, 3-5 Years	3
CD 254	Introduction to Administration of Child Care Programs	3
COM 131	Applied Communications or	
ENG 101	Composition I	3
+ Elective		3
		16
SEMESTER II		
CD 150	Nutrition, Health and Safety of the Young Child	3
CD 239	Studies in Child Guidance	3
CD 256	Advanced Administrative Practices for Child Care Facilities	3
SC 101	Introduction to Speech Communication	3
+ Elective		3
++ Elective		3
		18
Minimum Hours Required:		34

+ Electives—must be selected from the following:

CD 100	Directed Participation of Early Childhood Programs	1
CD 127	Child Development, 5-12 years	3
CD 200	Application of Child Development Learning Theories	1
CD 203	Parents and the Child Caregiver	3
CD 209	Early Childhood Special Projects	3
CD 253	Abuse Within the Family	3
CD 813	Cooperative Work Experience	3

+ + Electives—must be selected from the following:

CIS 103	Introduction to Computer Information Systems	3
HD 106	Personal and Social Growth	3
MTH 115	College Math	3
MTH 117	Fundamental Concepts of Math for Elementary Teachers	3
MTH 130	Business Math	3
PSY 101	Introduction to Psychology	3

CHILD DEVELOPMENT — CDA TRAINING CERTIFICATE

Brookhaven and Eastfield only

(Certificate)

This certificate program provides course work to assist the student to prepare for the CDA (Child Development Associate) assessment process. Students interested in applying for this national credential should consult a Child Development Instructor.

		CREDIT HOURS
SEMESTER I		
CD 135	Introduction to Early Childhood Programs and Services	4
CD 140	Early Childhood Development, 0-3 Years	3
CD 150	Nutrition, Health and Safety of the Young Child	3
CD 239	Studies in Child Guidance	3
HD 106	Personal and Social Growth	3
+ Elective		3-4
		19-20
SEMESTER II		
CD 137	Early Childhood Learning Environments, Activities and Materials	4
CD 141	Early Childhood Development, 3-5 Years	3
CD 812	Cooperative Work Experience or	2
CD 813	Cooperative Work Experience or	(3)
CD 814	Cooperative Work Experience	(4)
COM 131	Applied Communications or	
ENG 101	Composition I	3
+ Elective		6-8
		18-22
Minimum Hours Required:		37

+ Electives—must be selected from the following:

CD 125	Infant and Toddler Learning Environments, Activities and Materials	4
CD 203	Parents and the Child Caregiver/Teacher	3
CD 209	Early Childhood Development Special Projects	3
CD 236	The Special Child: Growth and Development	3
CD 250	Supportive Services for Exceptional Children	3
CD 251	Learning Programs for Children with Special Needs	4
CD 253	Abuse Within the Family	3
CD 254	Introduction to Administration of Child Care Programs	3
CD 256	Advanced Administration Practices for Child Care Facilities	3
ITP 141	Beginning Sign Language	4

CHILD DEVELOPMENT — INFANT-TODDLER OPTION

Brookhaven and Eastfield only-

(Certificate)

This certificate program provides for an in-depth study of infant-toddler growth and development, programs, and services.

		CREDIT HOURS
SEMESTER I		
CD 135	Introduction to Early Childhood Programs and Services	4
CD 140	Early Childhood Development, 0-3 Years	3
CD 239	Studies in Child Guidance	3
COM 131 ENG 101	Applied Communications or Composition I	3
+ Elective		3
		16
SEMESTER II		
CD 150	Nutrition, Health and Safety of the Young Child	3
CD 125	Infant and Toddler Learning Environments, Activities and Materials	4
CD 203	Parents and the Child Caregiver/Teacher	3
SC 101	Introduction to Speech Communication	3
SOC 203	Marriage and the Family	3
+ Elective		3
		19

Minimum Hours Required: 35

+ Electives—must be selected from the following:

CD 100	Directed Participation of Early Childhood Programs	1
CD 200	Application of Child Development Learning Theories	1
CD 209	Early Childhood Special Projects	3
CD 253	Abuse Within the Family	3
CD 813	Cooperative Work Experience	3

CHILD DEVELOPMENT — SPECIAL CHILD CERTIFICATE

Brookhaven and Eastfield only

(Certificate)

This certificate program is planned to emphasize the needs of special children and their families.

		CREDIT HOURS
SEMESTER I		
CD 140	Early Childhood Development, 0-3 Years	3
CD 150	Nutrition, Health and Safety of the Young Child	3
CD 236	The Special Child: Growth and Development	3
CD 239	Studies in Child Guidance	3
HD 106	Personal and Social Growth	3
		15
SEMESTER II		
CD 141	Early Childhood Development, 3-5 Years	3
CD 250	Supportive Services for Exceptional Children	3
CD 251	Learning Programs for Children with Special Needs	4
CD 812 CD 813 CD 814	Cooperative Work Experience or Cooperative Work Experience or Cooperative Work Experience	2 (3) (4)
COM 131 ENG 101	Applied Communications or Composition I	3
+ Elective		3-4
		18-20

Minimum Hours Required: 33

+ Elective—must be selected from the following:

CD 125	Infant and Toddler Learning Environments, Activities and Materials	4
CD 127	Early Childhood Development, 5-12 Years	3
CD 253	Abuse Within the Family	3
ITP 141	Beginning Sign Language	4

COMPUTER INFORMATION SYSTEMS — BUSINESS COMPUTER INFORMATION SYSTEMS

Offered at all seven campuses

(Associate Degree)

This option is designed to develop entry-level skills and knowledge in computer information systems. The option includes several business courses found in university degree programs as well as CIS courses which will prepare students for CIS course work at a university. A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

		CREDIT HOURS
SEMESTER I		
CIS 103	Introduction to Computer Information Systems	3
BUS 105 MGT 136	Introduction to Business or Principles of Management	3
MTH 111	Mathematics for Business and Economics I	3
ENG 101	Composition I	3
+ Elective		3
		15
SEMESTER II		
CIS 162	COBOL Programming I	4
MTH 112	Mathematics for Business and Economics II	3
SC 101	Introduction to Speech Communication	3
CIS 150	Computer Program Logic and Design	3
ACC 201	Principles of Accounting I*	3
		16
SEMESTER III		
CIS 164	COBOL Programming II	4
ECO 201	Principles of Economics I	3
ACC 202	Principles of Accounting II	3
++ Elective		3
+++ Elective		3-4
		16-17
SEMESTER IV		
CIS 210	Assembly Language I	4
ECO 202	Principles of Economics II	3
Any CIS/CS or Accounting course		3
++++ Elective		3-4
		13-14
Minimum Hours Required:		60

+ Elective—must be selected from the following:

Anthropology
Government
History
Human Development
Psychology
Sociology

++ Elective—must be selected from the following:

ART 104	Art Appreciation	3
ENG 102	Composition II	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
ENG 210	Technical Writing	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

+++ Recommended Electives

Any CIS or CS course (including CIS 700-800 Cooperative Work Experience).

Any 200 level accounting course not listed.

++++ Electives—must be selected from the following:

CIS 167	C Programming	4
CIS 168	4th Generation Language Concepts	3
CIS 170	RPG Programming	3
CIS 172	BASIC Programming	3
CIS 173	PASCAL Programming for Business	3

NOTE: Students may obtain credit toward a degree for only one of each of the pairs of courses listed below:

CIS 172 or CS 122
CIS 210 or CS 211
CIS 103 or CS 111
CIS 173 or CS 112

*ACC 131 and ACC 132 may be substituted for ACC 201. Both courses must be taken for equivalent credit to ACC 201.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

COMPUTER INFORMATION SYSTEMS — BUSINESS COMPUTER PROGRAMMER

Offered at all seven campuses

(Associate Degree)

This option is intended for the preparation of entry-level or trainee computer programmers who will work in an applications setting to support the general, administrative, and organizational information processing function of industry, commerce, business, and government service. It is designed as a two-year career program to prepare students for direct entry into the work environment. It is intended to provide a sufficient foundation so the graduate with experience and continued learning may advance in career paths appropriate to their own particular interests and abilities. A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

		CREDIT HOURS
SEMESTER I		
CIS 103	Introduction to Computer Information Systems	3
BUS 105 / MGT 136	Introduction to Business or Principles of Management	3
MTH 115	College Mathematics I *	3
ENG 101	Composition I	3
PSY 131 / PSY 101 / HD 105 / HD 107	Applied Psychology and Human Relations or Introduction to Psychology or Interpersonal Relationships or Developing Leadership Behavior	3
		15
SEMESTER II		
CIS 150	Computer Program Logic and Design	3
CIS 160	Data Communications	3
CIS 162	COBOL Programming I	4
ACC 201	Principles of Accounting I**	3
SC 101	Introduction to Speech Communication	3
		16
SEMESTER III		
CIS 164	COBOL Programming II	4
CIS 205	JCL and Operating Systems	4
ACC 202	Principles of Accounting II	3
+ Elective		3-4
++ Elective		3
		17-18
SEMESTER IV		
CIS 210	Assembly Language I	4
CIS 225	Systems Analysis & Design	4
CIS 258 / CIS 254	On-Line Applications or Data Base Systems	4
+++ Elective		3-4
		15-16

Minimum Hours Required: 63

+ Electives—must be selected from the following: Any CIS or CS course (including CIS 700-800 Cooperative Work Experience).

BUS 105	Introduction to Business	3
BUS 234	Business Law	3
BUS 237	Organizational Behavior	3
ECO 201	Principles of Economics I	3
ECO 202	Principles of Economics II	3
MGT 136	Principles of Management	3
MKT 206	Principles of Marketing	3
MTH 202	Introductory Statistics	3

Other 200 level Accounting courses.

++ Electives—must be selected from the following:

ART 104	Art Appreciation	3
ENG 102	Composition II	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
ENG 210	Technical Writing	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3

Foreign Language

+++ Electives—must be selected from the following:

CIS 108	PC Software Applications	4
CIS 114	Problem Solving With the Computer	4
CIS 118	Text Processing Applications	3
CIS 167	C Programming	4
CIS 168	4th Generation Language Concepts	3
CIS 170	RPG Programming	3
CIS 172	BASIC Programming	3
CIS 173	PASCAL Programming for Business	3
CIS 218	Spreadsheet Applications	4

NOTE: Students may obtain credit toward a degree for only one of each of the pairs of courses listed below:

CIS 172 or CS 122
CIS 210 or CS 211
CIS 103 or CS 111
CIS 173 or CS 112

*MTH 111 and MTH 130 may be substituted

**ACC 131 Bookkeeping I and ACC 132 Bookkeeping II may be substituted for ACC 201 Principles of Accounting I

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

DIGITAL ELECTRONICS TECHNOLOGY

Eastfield only

(Associate Degree)

This curriculum is designed to prepare a graduate to work as a technician on devices that require digital circuits such as computers, test equipment, automatic control units and central distribution systems. The student will learn schematic interpretation, test equipment usage, and technical communications.

		CREDIT HOURS
SEMESTER I		
ET 190	D.C. Circuits and Electrical Measurements*	4
COM 131 / ENG 101	Applied Communications or Composition I	3
MTH 195	Technical Mathematics I**	3
PSY 131 / PSY 101	Applied Psychology and Human Relations or Introduction to Psychology	3
+ Elective(s)		3-4
		16-17
SEMESTER II		
ET 191	A.C. Circuits*	4
ET 192	Digital Computer Principles	3
ET 193	Active Devices	4
SC 101	Introduction to Speech Communication	3
+ + Elective(s)		3-4
		17-18
SEMESTER III		
ET 260	Sinusoidal Circuits	4
ET 263	Digital Computer Theory	4
ET 266	Computer Applications	4
+ + Elective(s)		3-4
		15-16
SEMESTER IV		
ET 238	Linear Integrated Circuits	4
ET 264	Digital Systems	4
ET 265	Digital Research	3
ET 267	Microprocessors	4
		15
Minimum Hours Required		63

+ Electives — must be chosen from the following:

ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
BUS 143	Personal Finance	3
CIS 103	Introduction to Computer Information Systems	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
MUS 104	Music Appreciation	3
OFC 172	Beginning Typing	3
PHY 131	Applied Physics	4
SPA 101	Beginning Spanish	4

+ + Electives—must be selected from the following:

ET 101	Introduction to Telecommunications	4
ET 170	Printed Circuit Board Manufacturing	1
ET 172	Soldering	1
ET 174	Oscilloscope Utilization	1
ET 194	Instrumentation	3
ET 200	Special Applications of Electronics	4
ET 261	Pulse and Switching Circuits	4
ET 268	Microprocessor Troubleshooting and Interface	4
ET 290	Advanced Electronic Devices	4
ET 291	Linear Integrated Circuit Applications	4
ET 292	Telephony Switching Systems	4
ET 293	Basic Radio Circuitry	4
ET 294	High Frequency Transmission Systems	4
ET 295	Telecommunications Signaling	4
ET 296	System Installation and Testing	6
ET 703	Cooperative Work Experience	3
ET 704	Cooperative Work Experience	4
ET 803	Cooperative Work Experience	3
ET 804	Cooperative Work Experience	4
CIS 210	Assembly Language I	4
CS 111	Computing Science I	3
CS 122	Introduction to Basic Programming	3
CS 211	Assembly Language	3
DFT 182	Technician Drafting	2
DFT 231	Electronic Drafting	3
DFT 240	Printed Circuit Design	3
DFT 243	Advanced Printed Circuit Design	3
DFT 245	Computer Aided Design	3
EGR 101	Engineering Analysis	2
EGR 105	Engineering Design	3
EGR 204	Electrical Systems Analysis	3
MTH 196	Technical Mathematics II	3
MTH 101	College Algebra	3
MTH 102	Plane Trigonometry	3
MTH 104	Elementary Functions and Coordinate Geometry I	5
MTH 105	Elementary Functions and Coordinate Geometry II	5
MTH 106	Elementary Functions and Coordinate Geometry III	5
MTH 121	Analytic Geometry	3
MTH 124	Calculus	5
MTH 202	Introductory Statistics	3
MTH 221	Linear Algebra	3
MTH 225	Calculus II	4
MTH 226	Calculus III	3
MTH 230	Differential Equations	3

*ET 135 may be substituted for ET 190 and ET 191.

**MTH 101, 102, 121, 124, 225, or 226 may be substituted for MTH 195.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

DRAFTING AND COMPUTER AIDED DESIGN

Eastfield and Mountain View only

(Associate Degree)

This program prepares the student for employment in a wide range of industries as a drafter or engineering aide. Information in related fields is provided to enable the student to work effectively with engineers and professional staff. Enrollment in drafting cooperative work experience courses (co-op) provides students with on-the-job experience while in the program.

		CREDIT HOURS
SEMESTER I		
DFT 135	Reproduction Processes	2
DFT 183	Basic Drafting	4
COM 131	Applied Communications or	
ENG 101	Composition I	3
MTH 195	Technical Mathematics I or	
MTH 101	College Algebra	3
** Elective		3-4
		15-16
SEMESTER II		
DFT 160	Manufacturing Fundamentals	2
DFT 245	Computer Aided Design	3
+ DFT Course or		
++ Cooperative Work Experience		3-4
MTH 196	Technical Mathematics II or	
MTH 102	Plane Trigonometry	3
SC 101	Introduction to Speech Communication	3
		14-15
SEMESTER III		
+ DFT Course		3
EGR 106	Descriptive Geometry	3
HD 105	Basic Processes of Interpersonal Relationships or	
PSY 131	Applied Psychology and Human Relations	3
** Elective or		
++ Cooperative Work Experience		3-4
* Elective		3
		15-16
SEMESTER IV		
DFT 246	Advanced CAD-Electronic or	
DFT 248	Advanced CAD-Mechanical or	
DFT 249	Advanced CAD-Architectural	3
+ DFT Course or		
++ Cooperative Work Experience		3-4
PHY 131	Applied Physics	4
GVT 202	American Government or	
HST 102	History of the United States	3
** Elective		3-4
		16-18

Minimum Hours Required: 60

+ DFT Courses—must be selected from the following:

DFT 136	Geological and Land Drafting	3
DFT 184	Advanced Mechanical Drafting	3
DFT 185	Architectural Drafting	4
DFT 230	Structural Drafting	3
DFT 231	Electronic Drafting	3
DFT 232	Technical Illustration	3
DFT 234	Advanced Technical Illustration	4
DFT 235	Building Equipment (Mechanical and Electrical)	3
DFT 236	Pipe Drafting	3
DFT 246	Advanced CAD-Electronic	3
DFT 248	Advanced CAD-Mechanical	3
DFT 249	Advanced CAD-Architectural	3
DFT 250	Sheet Metal Design	3
DFT 251	Industrial Design	3
DFT 255	Selected Topics in Drafting	3

++Drafting Cooperative Work Experience courses—must be selected from the following:

DFT 703	Cooperative Work Experience	3
DFT 704	Cooperative Work Experience	4
DFT 713	Cooperative Work Experience	3
DFT 714	Cooperative Work Experience	4
DFT 803	Cooperative Work Experience	3
DFT 804	Cooperative Work Experience	4
DFT 813	Cooperative Work Experience	3
DFT 814	Cooperative Work Experience	4

*Elective—must be selected from the following:

ACC 131	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
BUS 105	Introduction to Business	3
ECO 201	Principles of Economics I	3
FR 101	Beginning French	4
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
SPA 101	Beginning Spanish	4
THE 101	Introduction to Theatre	3

**Electives—must be selected from the following:

BPR 177	Blueprint Reading	2
BPR 178	Blueprint Reading	2
OFC 176	Beginning Typing	1
CIS 103	Introduction to Computer Information Systems	3
GA 120	Printing Fundamentals	3

This elective may also be selected from Drafting courses as approved by the Drafting Department.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

DRAFTING AND COMPUTER AIDED DESIGN — ELECTRONIC DESIGN OPTION

Eastfield only

(Associate Degree)

This program prepares the student for employment in a wide range of electronic industries as a drafter or engineering aide. Information in related fields is provided to enable the student to work effectively with the engineer and professional staff. Cooperative work experience (co-op) can be a learning activity within the program.

		CREDIT HOURS
SEMESTER I		
DFT 160	Manufacturing Fundamentals	2
DFT 183	Basic Drafting	4
COM 131 / ENG 101	Applied Communications or Composition I	3
ET 190	D.C. Circuits and Electrical Measurements	4
MTH 195 / MTH 101	Technical Mathematics I or College Algebra	3
		16
SEMESTER II		
DFT 231	Electronic Drafting	3
DFT 240	Printed Circuit Design	3
MTH 196 / MTH 102	Technical Mathematics II or Plane Trigonometry	3
PSY 131	Applied Psychology and Human Relations	3
SC 101	Introduction to Speech Communication	3
		15
SEMESTER III		
DFT 135	Reproduction Processes	2
DFT 241 / DFT 243	Integrated Circuit Design or Advanced Printed Circuit Design	3
DFT 245	Computer Aided Design	3
ET 192 / ET 250	Digital Computer Principles or Principles of Electronic Integrated Circuits	3-4
**	Elective	3-4
		14-16
SEMESTER IV		
+	DFT Course	3
+	DFT Course	3
DFT 246	Advanced CAD-Electronic	3
*	Elective	3
**	Elective	3-4
		15-16

Minimum Hours Required: 60

+ DFT Courses—must be selected from the following:

DFT 232	Technical Illustration	3
DFT 242	Advanced Integrated Circuit Design	3
DFT 247	Advanced Printed Circuit Design	3
DFT 249	Advanced CAD-Architectural	3
DFT 250	Sheet Metal Design	3
DFT 255	Selected Topics in Drafting	3
DFT 703	Cooperative Work Experience	3
DFT 704	Cooperative Work Experience	4
DFT 713	Cooperative Work Experience	3
DFT 714	Cooperative Work Experience	4
DFT 803	Cooperative Work Experience	3
DFT 813	Cooperative Work Experience	3
DFT 814	Cooperative Work Experience	4
EGR 106	Descriptive Geometry	3

*Elective—must be selected from the following:

ACC 131	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
BUS 105	Introduction to Business	3
ECO 201	Principles of Economics I	3
FR 101	Beginning French	4
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
MGT 160	Principles of Purchasing	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
SPA 101	Beginning Spanish	4
THE 101	Introduction to Theatre	3

**Elective—must be selected from the following:

BPR 177	Blueprint Reading	2
BPR 178	Blueprint Reading	2
CIS 103	Introduction to Computer Information Systems	3
ET 191	AC Circuits	3
GA 120	Printing Fundamentals	3
OFC 176	Beginning Typing I	1

This elective may also be selected from Drafting courses as approved by the Drafting Department.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

ELECTRONIC TELECOMMUNICATIONS

Eastfield, Mountain View, and North Lake only

(Associate Degree)

This program is designed to prepare students to work as hardware technicians in the field of telecommunications. The student will be trained to test, interface, troubleshoot, and repair equipment for the telecommunications industry. The student will learn schematic interpretation, test equipment usage, and technical communications.

		CREDIT HOURS
SEMESTER I		
ET 101	Introduction to Telecommunications	4
ET 190	DC Circuits and Electrical Measurements	4
MTH 195	Technical Mathematics I	3
ENG 101	Composition I	3
PSY 101 PSY 131	Introduction to Psychology or Applied Psychology and Human Relations	3
		17
SEMESTER II		
ET 191	AC Circuits	4
ET 192	Digital Computer Principles	3
ET 193	Active Devices	4
SC 101	Introduction to Speech Communication	3
+ +Electives		3-4
		17-18
SEMESTER III		
ET 292	Telephony Switching Systems	4
ET 293	Basic Radio Circuitry	4
+ +Electives		3-4
+ +Electives		3-4
		14-16
SEMESTER IV		
ET 294	High Frequency Transmission Systems	4
ET 295	Telecommunication Signaling	4
ET 296	System Installation and Testing	6
+ Elective(s)		3-4
		17-18
Minimum Hours Required		65

+ Electives must be chosen from the following:

ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
BUS 143	Personal Finance	3
CIS 103	Introduction to Computer Information Systems	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
MUS 104	Music Appreciation	3
OFC 172	Beginning Typing	3
PHY 131	Applied Physics	4
SPA 101	Beginning Spanish	4

+ +Electives must be selected from the following:

CHM 101	General Chemistry	4
CS 111	Computing Science I	3
CS 112	Computing Science II	3
DFT 182	Technician Drafting	2
DFT 231	Electronic Drafting	3
DFT 240	Printed Circuit Design	3
DFT 243	Advanced Printed Circuit Design	3
DFT 245	Computer Aided Design	3
ET 135	DC-AC Theory and Circuit Analysis	6
ET 170	Printed Circuit Board Manufacturing	1
ET 172	Soldering	1
ET 174	Oscilloscope Utilization	1
ET 194	Instrumentation	4
ET 200	Special Applications of Electronics	4
ET 238	Linear Integrated Circuits	4
ET 260	Sinusoidal Circuits	4
ET 261	Pulse and Switching Circuits	4
ET 263	Digital Computer Theory	4
ET 264	Digital Systems	4
ET 265	Digital Research	4
ET 266	Computer Applications	4
ET 267	Microprocessors	4
ET 268	Microprocessor Troubleshooting and Interface	4
ET 290	Advanced Electronic Devices	4
ET 291	Linear Integrated Circuit Applications	4
ET 704	Cooperative Work Experience	4
ET 713	Cooperative Work Experience	3
ET 804	Cooperative Work Experience	4
EGR 101	Engineering Analysis	2
EGR 105	Engineering Design Graphics	3
EGR 204	Electrical Systems Analysis	3
MTH 196	Technical Mathematics	3
MTH 101	College Algebra	3
MTH 102	Plane Trigonometry	3
MTH 104	Elementary Functions and Coordinate Geometry I	5
MTH 105	Elementary Functions and Coordinate Geometry II	5
MTH 106	Elementary Functions and Coordinate Geometry III	5
MTH 121	Analytic Geometry	3
MTH 124	Calculus	5
MTH 202	Introductory Statistics	3
MTH 221	Linear Algebra	3
MTH 225	Calculus II	4
MTH 226	Calculus III	3
MTH 230	Differential Equations	3
PHY 111	Introductory General Physics	4

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

GRAPHIC COMMUNICATIONS

Eastfield only

(Associate Degree)

The student's understanding of graphic processes is developed for employment in a commercial printing firm or publication facility such as a newspaper or magazine. Students also learn production and management concepts and techniques useful in the field of graphic communications including photography and journalism.

		CREDIT HOURS
SEMESTER I		
GA 120	Printing Fundamentals	3
GA 136	Beginning Copy Preparation	3
ENG 101	Composition I or	
COM 131	Applied Communications	3
JN 101	Introduction to Mass Communications	3
OFC 172	Beginning Typing	3
		15
SEMESTER II		
GA 134	Basic Camera Operations	3
GA 140	Beginning Offset Printing	3
MTH 130	Business Mathematics or	
MTH 115	College Mathematics I	3
SC 101	Introduction to Speech Communication	3
+ Elective		3
		15
SEMESTER III		
GA 142	Basic Typesetting	3
GA 234	Intermediate Camera Operations	3
GA 236	Advanced Copy Preparation	3
GA 714	Cooperative Work Experience or	4
+ Elective		(3)
PHO 110	Introduction to Photography and Photo-Journalism	3
		15-16
SEMESTER IV		
GA 240	Advanced Offset Printing or	
GA 242	Intermediate Typesetting	3
GA 814	Cooperative Work Experience or	4
+ + Elective		(3)
JN 102	News Gathering and Writing or	
PHO 111	Advanced Photography and Photo-Journalism	3
PSY 101	Introduction to Psychology or	
PSY 131	Applied Psychology and Human Relations	3
+ + Elective		3
		15-16
Minimum Hours Required		61

+ Electives—must be selected from the following:

GA 206	Graphic Projects	3
GA 225	Special Topics	3
CIS 103	Introduction to Computer Information Systems	3
DFT 232	Technical Illustrations	3
JN 103	News Gathering and Writing	3
PHO 111	Advanced Photography and PhotoJournalism	3
PHO 207	Photography for Publication	3

+ + Electives—must be selected from the following:

ACC 131	Bookkeeping I	3
BUS 105	Introduction to Business	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

GRAPHIC COMMUNICATIONS — GRAPHIC ARTS

Eastfield only

(Certificate)

This certificate program provides the student with skill development opportunities in the field of graphic arts. Successful completion of this certificate program qualifies a person for employment in a commercial printing firm or in the printing division of a large company.

		CREDIT HOURS
SEMESTER I		
GA 120	Printing Fundamentals	3
GA 136	Beginning Copy Preparation	3
ENG 101	Composition I or	
COM 131	Applied Communications	3
JN 101	Introduction to Mass Communications	3
OFC 172	Beginning Typing	3
		15
SEMESTER II		
GA 134	Basic Camera Operations	3
GA 140	Beginning Offset Printing	3
MTH 130	Business Mathematics or	
MTH 115	College Mathematics I	3
SC 101	Introduction to Speech Communication	3
+ Elective		3
		15
Minimum Hours Required		30

+ Elective—must be selected from the following:

GA 225	Special Topics	3
GA 206	Graphic Projects	3
CIS 103	Introduction to Computer Information Systems	3
DFT 232	Technical Illustration	3
JN 103	News Gathering and Writing	3
PHO 111	Advanced Photography and PhotoJournalism	3

INTERPRETER TRAINING PROGRAM

Eastfield only

(Associate Degree)

This program is designed to train individuals at a paraprofessional level to work with the deaf. Course work will provide skills to work as an interpreter for the deaf, educational assistant,aide with the multiply-handicapped, or house parent in residential schools.

		CREDIT HOURS
SEMESTER I		
ITP 140	Introduction to Deafness	3
ITP 141	Beginning Sign Language	4
ITP 144	Psychosocial Aspects of Deafness	3
ITP 148	Receptive Fingerspelling	1
ENG 101	Composition I	3
		14
SEMESTER II		
ITP 143	Intermediate Sign Language	4
ITP 147	Language Development of the Deaf	3
ITP 150	Management Techniques for the Interpreter/Aide	4
ITP 802	Cooperative Work Experience	2
+ Elective		3
		16
SEMESTER III		
ITP 231	Interpreting: Ethics and Specifics	3
ITP 240	Advanced Sign Language	4
ITP 250	Interpreting: Sign to Voice	3
BIO 101	General Biology	4
SC 101	Introduction to Speech Communication	3
		17
SEMESTER IV		
ITP 248	Rehabilitation of the Multiply-Handicapped Deaf	3
ITP 251	Education/Specialized Signs	4
ITP 253	Interpreting: Voice to Sign	3
ITP 260	Practicum	3
MTH 101 MTH 130	College Algebra or Business Mathematics	3
		16
Minimum Hours Required		63

+ Electives — must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

INTERPRETER TRAINING PROGRAM – SIGN LANGUAGE STUDIES

Eastfield only

(Certificate)

This certificate offers entry level skills toward the development of sign language competency.

		CREDIT HOURS
SEMESTER I		
ITP 140	Introduction to Deafness	3
ITP 141	Beginning Sign Language	4
ITP 144	Psychosocial Aspects of Deafness	3
ITP 148	Receptive Fingerspelling	1
ENG 101	Composition I	3
		14
SEMESTER II		
ITP 143	Intermediate Sign Language	4
ITP 147	Language Development of the Deaf	3
ITP 802 ITP 803	Cooperative Work Experience or Cooperative Work Experience	2 (3)
ENG 102	Compostion II	3
+ + Elective		3-4
		15-17
Minimum Hours Required		29

+ + Elective — must be selected from the following:

ITP 150	Management Techniques for the Interpreter/Aide	4
ITP 231	Interpreting: Ethics and Specifics	3
ITP 247	Special Problems in Deafness	3
ITP 248	Rehabilitation of the Multiply-Handicapped Deaf	3

MANAGEMENT CAREERS— ADMINISTRATIVE MANAGEMENT OPTION

Offered at all seven campuses

(Associate Degree)

The Administrative Management Option is designed for students seeking a broad program of study in all phases of business practices. This option focuses not only at the core of management (principles of management, organizational behavior, personnel administration) but also encompasses the critical areas of business operations (principles of marketing, accounting, business law).

		CREDIT HOURS
SEMESTER I		
MGT 136	Principles of Management	3
BUS 105	Introduction to Business	3
ENG 101	Composition I	3
MTH 111	Mathematics for Business and Economics I or	
MTH 130	Business Mathematics	3
+ Elective		3
		15
SEMESTER II		
MKT 206	Principles of Marketing	3
ACC 201	Principles of Accounting I	3
ENG 102	Composition II	3
CIS 103	Introduction to Computer Information Systems	3
+ + Elective		3
		15
SEMESTER III		
ACC 202	Principles of Accounting II	3
BUS 234	Business Law	3
ECO 201	Principles of Economics I	3
PSY 131	Applied Psychology and Human Relations	3
SC 101	Introduction to Speech Communication	3
		15
SEMESTER IV		
MGT 242	Personnel Administration	3
BUS 237	Organizational Behavior	3
ECO 202	Principles of Economics II	3
OFC 231	Business Communications	3
+ + Elective		3
+ + + Elective		3
		18
Minimum Hours Required:		63

+ Elective—must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to the Humanities	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

+ + Electives— may be selected from the following:

MGT 153	Small Business Management	3
MGT 171	Introduction to Supervision	3
MGT 212	Special Problems in Business	1
MGT 703	Cooperative Work Experience	3
MGT 704	Cooperative Work Experience	4
MKT 137	Principles of Retailing	3
MKT 230	Salesmanship	3
MKT 233	Advertising and Sales Promotion	3
OFC 160	Office Calculating Machines	3
OFC 172	Beginning Typing	3

+ + + Elective—must be selected from the following:

GVT 201	American Government	3
GVT 202	American Government	3
HST 101	History of the United States	3
HST 102	History of the United States	3
SOC 101	Introduction to Sociology	3
SOC 102	Social Problems	3
HD 105	Basic Process of Interpersonal Relationship	3
HD 106	Personal and Social Growth	3
ANT 100	Introduction to Anthropology	3
PSY 103	Human Sexuality	3
PSY 101	Introduction to Psychology	3

*Students may substitute ACC 131 and ACC 132 for ACC 201. Only three hours may be applied to the required number of hours for granting the degree.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

MANAGEMENT CAREERS— MID-MANAGEMENT OPTION

Offered at all seven campuses

(Associate Degree)

The Mid-Management Program provides an opportunity for students to acquire knowledge in the management field and at the same time update and sharpen personal management skills. In addition to learning about supervision, personnel management, human relations psychology, problem-solving, decision-making, and other related business topics, students also participate in an on-the-job management training course with their present employers. These management training courses at work allow students to apply what is learned in the classroom environment and obtain the valuable practical experience necessary to become competent business managers. The Mid-Management Program allows students the opportunity to bridge the gap between theory and practice as professional managers.

		CREDIT HOURS
SEMESTER I		
MGT 136	Principles of Management	3
MGT 150	Management Training	4
MGT 154	Management Seminar: Role of Supervision	2
BUS 105	Introduction to Business	3
ENG 101	Composition I	3
		15
SEMESTER II		
MGT 151	Management Training	4
MGT 155	Management Seminar: Personnel Management	2
CIS 103	Introduction to Computer Information Systems	3
MTH 111	Mathematics for Business and Economics I or	
MTH 130	Business Mathematics	3
ENG 102	Composition II	3
+ Elective		3
		18
SEMESTER III		
MGT 250	Management Training	4
MGT 254	Management Seminar: Organizational Development	2
ACC 201	Principles of Accounting I*	3
ECO 201	Principles of Economics I	3
PSY 131	Applied Psychology and Human Relations	3
SC 101	Introduction to Speech Communication	3
		18
SEMESTER IV		
MGT 251	Management Training	4
MGT 255	Management Seminar: Planning Strategy and the Decision Process	2
ECO 202	Principles of Economics II	3
++ Elective		3
+++ Elective		3
		15
Minimum Hours Required:		66

+ Elective—must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to the Humanities	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

++ Elective—may be selected from the following:

MGT 153	Small Business Management	3
MGT 212	Special Problems in Business	1
MKT 137	Principles of Retailing	3
MKT 230	Salesmanship	3
MKT 233	Advertising and Sales Promotion	3
OFC 160	Office Calculating Machines	3
OFC 172	Beginning Typing	3

+++ Electives—must be selected from the following:

GVT 201	American Government	3
GVT 202	American Government	3
HST 101	History of the United States	3
HST 102	History of the United States	3
SOC 101	Introduction to Sociology	3
SOC 102	Social Problems	3
HD 105	Basic Processes of Interpersonal Relationship	3
HD 106	Personal and Social Growth	3
ANT 100	Introduction to Anthropology	3
PSY 100	Human Sexuality	3
PSY 101	Introduction to Psychology	3

*Students may substitute ACC 131 and ACC 132 for ACC 201. Only three hours may be applied to the required number of hours for granting the degree.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

MANAGEMENT CAREERS— TRANSPORTATION AND LOGISTICS MANAGEMENT OPTION

Eastfield only

(Associate Degree)

The Transportation and Logistics Management Option is designed to prepare trained entry-level personnel for the transportation industry with the ability to advance into management positions such as traffic manager, terminal manager, and safety specialist.

		CREDIT HOURS
SEMESTER I		
TRT 146	Transportation and Traffic Management	3
BUS 105	Introduction to Business	3
ENG 101	Composition I	3
MGT 136	Principles of Management	3
MTH 111	Mathematics for Business and Economics I or	
MTH 130	Business Mathematics	3
		15
SEMESTER II		
TRT 145	Principles of Rates and Pricing	3
ACC 201	Principles of Accounting I or	
ACC 131	Bookkeeping I	3
SC 101	Introduction to Speech Communication	3
MGT 171	Introduction to Supervision	3
+ + Elective or Cooperative Work Experience		3
		15
SEMESTER III		
TRT 215	Physical Distribution	3
CIS 103	Introduction to Computer Information Systems	3
ECO 201	Principles of Economics I	3
MKT 206	Principles of Marketing	3
PSY 131	Applied Psychology and Human Relations or	
PSY 101	Introduction to Psychology	3
		15
SEMESTER IV		
TRT 243	Export/Import Practices	3
TRT 247	Economics of Transportation	3
BUS 234	Business Law	3
MGT 242	Personnel Administration	3
+ Elective or Cooperative Work Experience		3
		15
Minimum Hours Required:		60

+ Electives—must be selected from the following:

TRT 260	Studies in Transporation Technology	1
TRT 713	Cooperative Work Experience	3
TRT 803	Cooperative Work Experience	3
TRT 813	Cooperative Work Experience	3
ACC 202	Principles of Accounting II	3
BUS 237	Organizational Behavior	3
MKT 230	Salesmanship	3
MKT 233	Advertising and Sales Promotion	3
MTH 202	Introductory Statistics	3
OFC 231	Business Communications	3

+ + Elective—must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to the Humanities	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

OFFICE CAREERS

Offered at all seven campuses

The Office Careers freshman student is provided a core study related to working in an office environment. After completing this core, the sophomore student will begin the specialized program tracks of Administrative Assistant Legal Secretary.

		CREDIT HOURS
CORE CURRICULUM		
(For all first year students in Office Careers)		
SEMESTER I		
ENG 101	Composition I	3
MTH 130	Business Mathematics	3
OFC 150	Automated Filing Procedures	3
**OFC 160	Office Calculating Machines	3
**OFC 172	Beginning Typing*	3
BUS 105	Introduction to Business	3
		18
SEMESTER II		
ENG 102	Composition II	3
OFC 162	Office Procedures	3
OFC 173	Intermediate Typing*	3
ACC 131	Bookkeeping I or	
ACC 201	Principles of Accounting	3
CIS 103	Introduction to Computer Information Systems	3
**OFC 179	Office Information Systems Concepts	2
**OFC 182	Introduction to Word Processing Equipment	1
		18
Minimum Hours Required		36

*Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests. If a student places out, any OFC course may be taken to supplement the minimum hours required.

**Note: OFC 172 Equivalent to 176, 177 and 178
OFC 160 Equivalent to 192, 193 and 194
OFC 190 Equivalent to 179, 182 and 185

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

OFFICE CAREERS — ADMINISTRATIVE ASSISTANT OPTION

Offered at all seven campuses

(Associate Degree)

The primary objective of the Administrative Assistant Option to the Office Careers Program is to prepare students for positions as assistants to administrators within public or private firms and agencies. Emphasis in this program is on the development of organizational and management skills in addition to basic office skills.

		CREDIT HOURS
SEMESTERS I and II		
Core Curriculum		36
SEMESTER III		
OFC 231	Business Communications	3
SC 101	Introduction to Speech Communication	3
PSY 131	Applied Psychology and Human Relations or	
HD 105	Basic Processes of Interpersonal Relationships	3
**OFC 185	Basic Machine Transcription	1
OFC 282	Word Processing Applications	1
*OFC 273	Advanced Typing Applications	2
OFC 159	Beginning Shorthand or	
OFC 103	Speedwriting	4
		17
SEMESTER IV		
HUM 101	Introduction to the Humanities	3
OFC 283	Specialized Software	1
MGT 136	Principles of Management or	
BUS 237	Organizational Behavior	3
OFC 166	Intermediate Shorthand or	
OFC 106	Speedwriting Dictation and Transcription	4
OFC 803, 804	Cooperative Work Experience	3-4
		14-15
Minimum Hours Required		67

*Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests. If a student places out, any OFC course may be taken to supplement the minimum hours required.

**NOTE: OFC 190 Equivalent to 179, 182 and 185

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

OFFICE CAREERS — LEGAL SECRETARY OPTION

Offered at all seven campuses

(Associate Degree)

The primary objective of this option is to prepare students to become competent legal secretaries, capable of performing office and clerical duties within public and private firms and agencies. Students enrolled in the program will have an opportunity to secure intensive training in basic skills. An Associate in Applied Arts and Sciences Degree is awarded for successful completion.

		CREDIT HOURS
SEMESTERS I and II		
Core Curriculum		36
SEMESTER III		
OFC 231	Business Communications	3
SC 101	Introduction to Speech Communication	3
PSY 131	Applied Psychology and Human Relations or	
HD 105	Basic Processes of Interpersonal Relationships	3
**OFC 185	Basic Machine Transcription	1
OFC 282	Word Processing Applications	1
OFC 273	Advanced Typing Applications*	2
HUM 101	Introduction to the Humanities	3
		16
SEMESTER IV		
BUS 234	Business Law	3
OFC 167	Legal Terminology and Transcription	3
OFC 274	Legal Secretarial Procedures	3
OFC 285	Applied Machine Transcription	1
OFC 803-804	Cooperative Work Experience	3-4
		13-14
Minimum Hours Required		65

*Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests. If a student places out, any OFC course may be taken to supplement the minimum hours required.

**NOTE: OFC 190 Equivalent to 179, 182 and 185

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

OFFICE CAREERS — GENERAL OFFICE

Offered at all seven campuses

(Certificate)

The General Office Certificate Program with a clerical emphasis is designed to provide the student with a basic working knowledge of office procedures.

		CREDIT HOURS
SEMESTER I		
ENG 101	Composition I	3
MTH 130	Business Mathematics	3
**OFC 160	Office Calculating Machines	3
**OFC 172	Beginning Typing*	3
BUS 105	Introduction to Business	3
CIS 103	Introduction to Computer Information Systems	3
		18
SEMESTER II		
OFC 162	Office Procedures	3
OFC 173	Intermediate Typing*	3
**OFC 190	Principles of Word Processing	4
OFC 231	Business Communications	3
ACC 131	Bookkeeping I or	
ACC 201	Principles of Accounting	3
		16
Minimum Hours Required		34

*Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests. If students place out, any OFC course may be taken to supplement the minimum hours required.

**NOTE: OFC 172 Equivalent to 176, 177 and 178
OFC 160 Equivalent to 192, 193 and 194
OFC 190 Equivalent to 179, 182 and 185

OFFICE INFORMATION SYSTEMS SPECIALIST

Offered at all seven campuses

(Associate Degree)

This program introduces the skills for operators, supervisors, and managers in automated office environments. Office Information Systems involves the use of automated equipment and techniques that include speed gathering, processing, storing, and distributing printed materials.

This program develops the skills to work with a group of principals as a part of a team under the direction of an administrative support supervisor/informations systems manager. The specialist handles transcription and manipulation of data using a variety of software applications and provides special secretarial services.

		CREDIT HOURS
SEMESTER I		
ENG 101	Composition I	3
MTH 130	Business Mathematics	3
**OFC 160	Office Calculating Machines	3
*OFC 173	Intermediate Typing	3
**OFC 179	Office Information Systems Concepts	2
***OFC 182	Introducation to Word Processing Equipment	1
		*15
SEMESTER II		
ENG 102	Composition II	3
OFC 162	Office Procedures	3
**OFC 185	Basic Machine Transcription	1
*OFC 273	Advanced Typing Applications	2
***OFC 282	Word Processing Applications	1
CIS 103	Introduction to Computer Information Systems	3
ACC 131 / ACC 201	Bookkeeping I or Principles of Accounting	3
		16
SEMESTER III		
SC 101	Introduction to Speech Communication	3
PSY 131 / HD 105	Applied Psychology and Human Relations or Basic Processes of Interpersonal Relationships	3
OFC 150	Automated Filing Procedures	3
OFC 231	Business Communications	3
***OFC 283	Specialized Software	1
OFC 285	Applied Machine Transcription	1
+ Elective		3
		17
SEMESTER IV		
OFC 256	Office Management	3
CIS 160	Data Communications	3
OFC 803-804	Cooperative Workd Experience or	
Elective(s)		3-4
+ Electives		3
++ Electives		3
		15-16
Minimum Hours Required:		63

+ Electives—must be selected from the following:

OFC 143	Contemporary Topics in Office Careers	1
OFC 182	Introduction to Word Processing Equipment***	1
OFC 282	Word Processing Applications***	1
OFC 283	Specialized Software	1

+ + Electives—must be selected from the following:

BUS 105	Introduction to Business	3
BUS 234	Business Law	3
MGT 136	Principles of Management	3

*Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests.

**Note:

OFC 160 Equivalent to 192, 193, and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 190 Equivalent to 179, 182, and 185

***Must be repeated for credit two additional times using different emphasis/equipment/software.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

SOCIAL WORK ASSOCIATE

Eastfield only

(Associate Degree)

The Social Work Associate Program is designed to prepare individuals interested in working with people to obtain entry-level employment in public and private social service agencies. The social service worker is equipped with skills, knowledge, values, and sensitivity equipped with skills, knowledge, values, and sensitivity to effectively serve human needs in a variety of community settings. Students have the options to select courses that will prepare them to work in general social services or specialized social services for chemical abuse or the aging.

		CREDIT HOURS
SEMESTER I		
SW 101	Orientation to Social Services	3
SW 103	Social Work Methods	3
SW 105	Basic Interviewing and Counseling Skills	3
ENG 101	Composition I or	
COM 131	Applied Communications	3
HD 106	Personal and Social Growth	3
		15
SEMESTER II		
SW 107	Abnormal Behavior or	
SW 109	Physiology of Addiction	3
SW 111	Aging in America or	
SW 113	Alcoholism Counseling	3
PSY 101	Introduction to Psychology	3
SC 101	Introduction to Speech Communication	3
SOC 101	Introduction to Sociology	3
		15
SEMESTER III		
SW 201	Introduction to Social Work	3
SW 203	Alcoholism Treatment Models or	
SW 205	Social Policies and Programs for the Aging	3
SW 207	Prevention of Chemical Abuse/ Dependency or	
SW 209	Community Services for the Aging	3
SW 703	Cooperative Work Experience or	
SW 704	Cooperative Work Experience	3-4
MTH 101	College Algebra or	
MTH 115	College Math I	3
		15-16
SEMESTER IV		
SW 211	Family Intervention in Chemical Abuse or	
SW 213	Chronic Illness and the Aging	3
SW 215	Issues in Chemical Abuse and Addiction or	
†Elective		3
SW 803	Cooperative Work Experience or	
SW 804	Cooperative Work Experience	3-4
CIS 103	Introduction to Computer Information Systems	3
SPA 101	Beginning Spanish or Approved Humanities Elective	3-4
		15-17
Minimum Hours Required		60

†Electives — must be selected from the following:

SW 226	Nursing Home Activity Director Training	4
SW 228	Special Topics in Social Services	3
SW 232	Human Behavior and Social Environment	3
SW 713	Cooperative Work Experience	3
SW 813	Cooperative Work Experience	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

SOCIAL WORK — HUMAN SERVICES

Eastfield only

(Certificate)

This certificate program provides training in three areas: child development, social work, and interpreter training. Students will attain interdisciplinary competencies and select one area in which to do their cooperative work experience. Students completing this certificate may choose to obtain entry level jobs in the human services field or continue their associate degree work in one of the three areas.

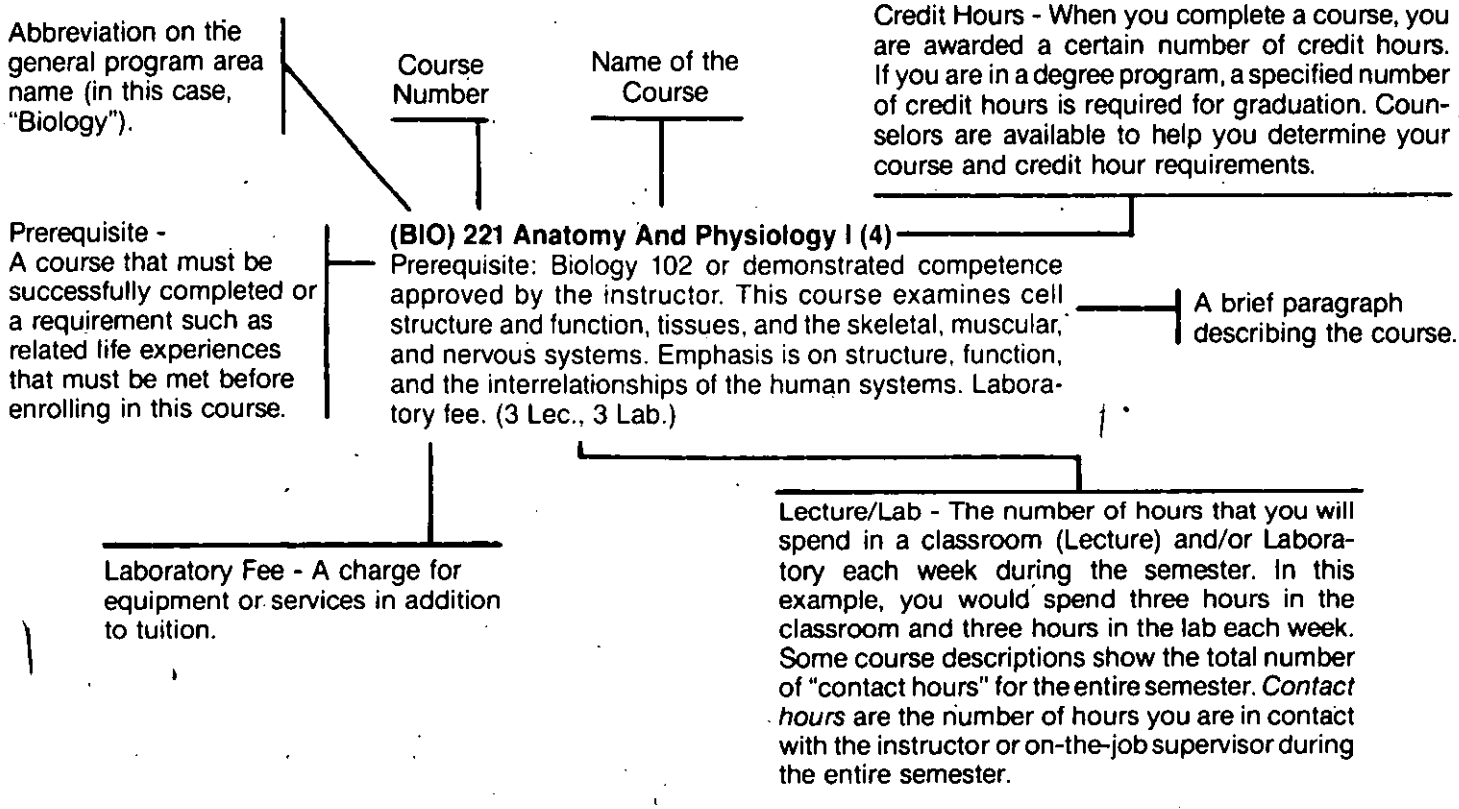
		CREDIT HOURS
SEMESTER I		
SW 101	Orientation to Social Services	3
CD 141	Early Childhood Development, 3-5 Years	3
CD 236	Childhood Problems	3
ITP 140	Introduction to Deafness	3
ITP 141	Beginning Sign Language	4
		16
SEMESTER II		
SW 103	Social Work Methods	3
SW 201	Introduction to Social Work	3
SW 703	Cooperative Work Experience	3
CD 239	Studies in Child Guidance	3
ITP 143	Intermediate Sign Language	4
		16
Minimum Hours Required		32

Course Descriptions

Including General Education and Career Program Courses

- All courses listed in the District catalog are not available at every college. The District catalog contains descriptions of both General Education courses and Technical/Occupational courses offered collectively by the seven colleges of the Dallas County Community College District. The listing is alphabetical by course subject title.
- Each campus within the District publishes a catalog which reflects courses and programs that are offered on that campus.
- All courses listed in this catalog may not be offered during the current year. It is suggested that students plan their schedules with the help of a college counselor well in advance of registration.

Understanding The Course Descriptions



In the following course descriptions, the number of credit hours for each course is indicated in parenthesis opposite the course number and title. Courses numbered 100 (except Music 199, Art 199 and Theater 199) or above may be applied to requirements for associate degrees. Courses numbered below 100 are developmental in nature and may not be applied to degree requirements. Students are urged to consult their counselors or specific college catalogs for information about transferability of courses to four-year institutions. Course prerequisites may be waived only by the appropriate division chairperson.

ACCOUNTING

(ACC) 131 Bookkeeping I (3)
The fundamental principles of double-entry bookkeeping are presented and applied to practical business situations. Emphasis is on financial statements, trial balances, work sheets, special journals, and adjusting and closing entries. A practice set covering the entire business cycle is completed. (3 Lec.)

(ACC) 132 Bookkeeping II (3)
Prerequisite: Accounting 131. This course covers accruals, bad debts, taxes, depreciation, controlling accounts, and business vouchers. Bookkeeping for partnerships and corporations is introduced. (3 Lec.)

(ACC) 201 Principles of Accounting I (3)
This course covers the theory and practice of measuring and interpreting financial data for business units. Topics include depreciation, inventory valuation, credit losses, the operating cycle, and the preparation of financial statements. *(This course is offered on campus and may be offered via television.)* (3 Lec.)

(ACC) 202 Principles Of Accounting II (3)
Prerequisite: Accounting 201. Accounting procedures and practices for partnerships and corporations are studied. Topics include cost data and budget controls. Financial reports are analyzed for use by creditors, investors, and management. (3 Lec.)

(ACC) 203 Intermediate Accounting I (3)
Prerequisite: Accounting 202. This course is an intensive study of the concepts, principles, and practice of modern financial accounting. Included are the purposes and procedures underlying financial statements. (3 Lec.)

(ACC) 204 Managerial Accounting (3)
Prerequisite: Accounting 202. This course is a study of accounting practices and procedures used to provide information for business management. Emphasis is on the preparation and internal use of financial statements and budgets. Systems, information, and procedures used in management planning and control are also covered. (3 Lec.)

(ACC) 205 Business Finance (3)
Prerequisites: Economics 201 or 202 and Accounting 201. This course focuses on the financial structure in the free enterprise system. Topics include interest rates, value analysis, the financing of business firms and government, and security markets. Financial requirements for decision-making and capital formation are analyzed. (3 Lec.)

(ACC) 207 Intermediate Accounting II (3)
This course continues Accounting 203. Principles and problems in fixed liabilities and capital stock are examined. Equities, business combinations and the analysis and interpretation of supplementary statements are also included. (3 Lec.)

(ACC) 238 Cost Accounting (3)
Prerequisite: Accounting 202. The theory and practice of accounting for a manufacturing concern are presented. The measurement and control of material, labor, and factory overhead are studied. Budget, variance analysis, standard costs, and joint and by-product costing are also included. (3 Lec.)

(ACC) 239 Income Tax Accounting (3)
Prerequisite: Accounting 202 or demonstrated competence approved by the instructor. This course examines basic income tax laws which apply to individuals and sole proprietorships. Topics include personal exemptions, gross income, business expenses, non-business deductions, capital gains, and losses. Emphasis is on common problems. (3 Lec.)

(ACC) 250 Microcomputer-Based Accounting Applications (3)
Prerequisites: Accounting 202 and Computer Information Systems 103. This course is designed to provide students with an overview of microcomputer-based accounting systems for small businesses. Actual "hands-on" experience will be provided utilizing systems for general ledger, accounts receivable, accounts payable, and payroll. Additional study may be devoted to financial planning and budgeting applications using electronic worksheet programs. Laboratory fee. (2 Lec., 2 Lab.)

(ACC) 703, 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(ACC) 704, 714, 804, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

AIR CONDITIONING AND REFRIGERATION

(ACR) 109 Contemporary Topics I (2)
Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. Laboratory fee. (1 Lec., 2 Lab.)

(ACR) 110 Contemporary Topics II (3)
Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 120 Principles of Refrigeration (6)
This course is a comprehensive course that includes Air Conditioning 121 and 122. Students may register in the comprehensive course or the inclusive courses. The physical principles applying to refrigeration systems are studied including thermodynamics, gas laws, heat transfer, refrigerants, pressure-enthalpy diagrams, vapor compression systems, safety procedures and the proper safe use of handtools. Laboratory fee. (4 Lec., 5 Lab.)

(ACR) 121 Principles of Refrigeration I (3)
The physical principles applying to refrigeration systems including thermodynamics, gas laws and heat transfer are covered by this course. The proper use of handtools and safety procedures followed in the industry are presented. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 122 Principles of Refrigeration II (3)
Prerequisite: Air Conditioning and Refrigeration 121. This course is a continued study of the physical principles related to refrigeration systems including basic properties of refrigerants and the construction of pressure-enthalpy diagrams. The operation of vapor compression systems are studied in detail. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 125 Principles of Electricity (6)
This course is a comprehensive course that includes Air Conditioning 126 and 127. Students may register in the comprehensive course or the inclusive courses. The electrical principles applied to the air conditioning and refrigeration systems are studied including simple circuits, circuits, basic electrical units, test instruments, construction and diagnosis of complex electrical circuits, alternating current motors and electrical safety procedures. Laboratory fee. (4 Lec., 5 Lab.)

(ACR) 126 Principles of Electricity I (3)
This course is a study of the principles of electricity as applied in the air conditioning and refrigeration service field. Simple circuits, circuit components, basic electrical units and test instruments are covered. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 127 Principles of Electricity II (3)
Prerequisite: Air Conditioning and Refrigeration 126. This course continues the study of electricity applied to air conditioning and refrigeration. Emphasis is placed on the construction and diagnosis of complex electrical circuits and alternating current motors used in the air conditioning and refrigeration service industry. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 130 Residential Cooling Systems (6)
Prerequisite: Air Conditioning and Refrigeration 120 and 125. This course is a comprehensive course that includes Air Conditioning 131 and 132. Students may register in the comprehensive course or the inclusive courses. This course covers compressors, condensors, evaporators, metering devices, pipe sizing, piping practices, seasonal maintenance, electrical systems, system troubleshooting and system installation. Laboratory fee. (4 Lec., 5 Lab.)

(ACR) 131 Residential Cooling Systems I (3)
Prerequisite: Air Conditioning and Refrigeration 122 and 127. The principles of refrigeration and electricity are applied to residential cooling systems. Emphasis is placed on compressors, condensors, evaporators, metering devices and electrical components function and relationship. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 132 Residential Cooling Systems II (3)
Prerequisite: Air Conditioning and Refrigeration 131. This course includes pipe sizing, piping practices, seasonal maintenance, system troubleshooting and system installation. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 140 Residential Heating Systems (6)
Prerequisite: Air Conditioning and Refrigeration 120 and 125. This course is a comprehensive course that includes Air Conditioning 141 and 142. Students may register in the comprehensive course or the inclusive courses. The servicing of residential heating systems is studied. Topics include gas-fired furnaces, electric furnaces, heat pumps, control circuits and other related topics. Laboratory fee. (4 Lec., 5 Lab.)

(ACR) 141 Residential Heating Systems I (3)
Prerequisite: Air Conditioning and Refrigeration 122 and 127. This course is a study of the procedures and principles used in servicing residential heating systems including gas-fired and electric furnaces. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 142 Residential Heating Systems II (3)
Prerequisite: Air Conditioning and Refrigeration 141. Heat pumps, heating system control circuits and other topics related to residential heating systems are covered in this course. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 200 Contractor Estimating (6)
This course is a comprehensive course that includes Air Conditioning 209 and 210. Students may register in the comprehensive course or the inclusive courses. The study of load calculations, air duct design, building plans, construction codes, state and local licenses, job estimating and job scheduling are covered in this course. Laboratory fee. (4 Lec., 5 Lab.)

(ACR) 209 Contractor Estimating I (3)
This course is a study of load calculations, air duct design and building plans used in the industry by service contractors. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 210 Contractor Estimating II (3)
Prerequisite: Air Conditioning and Refrigeration 209. This course continues the study of contractor estimating including construction codes, state and local licenses, job estimating elements, and job scheduling. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 212 System Servicing (6)
Prerequisite: Air Conditioning and Refrigeration 130 and 140. This course is a comprehensive course that includes Air Conditioning 213 and 140. Students may register in the comprehensive course or the inclusive courses. This course includes psychrometric air properties, system balancing, the service of humidifiers and electronic air cleaners, advanced system troubleshooting, and system installation. Laboratory fee. (4 Lec., 5 Lab.)

(ACR) 213 System Servicing I (3)
Prerequisite: Air Conditioning and Refrigeration 132 and 142. The topics of psychrometric air properties, system balancing, the service of humidifiers and electronic air cleaners are covered in this course. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 214 System Servicing II (3)
Prerequisite: Air Conditioning and Refrigeration 213. This course is a continuation of system servicing with emphasis on advanced system troubleshooting and system installation. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 221 Refrigeration Loads (3)
Prerequisite: Air Conditioning and Refrigeration 130 and 140. This course focuses on the analysis and estimation of refrigeration loads for medium and low temperature systems. Product storage data and procedures for calculating loads with a variety of products and refrigeration equipment are included. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 222 Advanced Systems (3)
Prerequisites: Air Conditioning and Refrigeration 221. Large commercial and industrial air conditioning systems are introduced. Basic system designs, equipment and control systems are the main topics. Instruction on air handling units, air volume boxes, centrifugal chillers, absorption systems, cooling towers, water treatment, and chilled water systems is included. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 223 Medium Temperature Refrigeration Systems (3)
Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Service and installation procedures for medium temperature equipment as found in food stores, warehouses, distribution centers, and processing plants are presented. Particular attention is given to electrical and mechanical features and to defrost subsystems. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 224 System Testing And Balancing (3)
Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 222. Concepts and procedures for determining the effectiveness and efficiency of an air conditioning system are studied. System balance, capacity, load requirements and energy consumption are considered. Also included are the performance data and the use of test instruments for measurement of air flow, water flow, energy consumption, and recording of temperature. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 227 Low Temperature Refrigeration Systems (3)
Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Service and installation procedures for low temperature equipment as found in food stores, warehouses, distribution centers, and industrial plants are presented. Particular attention is given to electrical and mechanical characteristics and to defrost system requirements. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 228 Air Conditioning System Equipment Selection (3)
Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 222. Methods of equipment selection are covered for air conditioning load requirements. Consideration is given to system layout, utility service, control schemes, duct sizing, and installation practices. Laboratory fee. (2 Lec., 3 Lab.)

(ACR) 229 Refrigeration Equipment Selection (3)
Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 223 or 227. This course presents a procedure for selecting equipment and estimating the capacity of commercial refrigeration systems. Consideration is given to component compatibility, system continuity control, balancing, and efficiency. Laboratory fee. (2 Lec., 2 lab.)

(ACR) 230 Energy Conservation (3)
Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 229. The flow of energy in an air conditioning or refrigeration system is examined in depth. Emphasis is on cost effectiveness and energy savings. Practical situations are examined where industry offers a range of equipment or construction designs using various sources of energy with different degrees of efficiency. Laboratory fee. (2 Lec., 2 Lab.)

(ACR) 703, 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(ACR) 704, 714, 804, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

ANTHROPOLOGY

(ANT) 100 Introduction To Anthropology (3)
This course surveys the origin of mankind involving the processes of physical and cultural evolution, ancient man, and preliterate man. Attention is centered on fossil evidence, physiology and family/group roles and status. (3 Lec.)

(ANT) 101 Cultural Anthropology (3)
Cultures of the world are surveyed, and emphasis is given to those of North America. Included are the concepts of culture, social and political organization, language, religion and magic, and elementary anthropological theory. (This course is offered on campus and may be offered via television.) (3 Lec.)

(ANT) 104 American Indian Culture (3)
Native Americans are studied from three perspectives: Native American history and prehistory; traditional Indian cultures; and native Americans today. The latter theme stresses current topics such as discrimination, poverty, employment, reservations, The Bureau of Indian Affairs, self-determination, health care, etc. (3 Lec.)

(ANT) 110 The Heritage Of Mexico (3)
This course (cross-listed as History 110) is taught in two parts each semester. The first part of the course deals with the archeology of Mexico beginning with the first humans to enter the North American continent and culminating with the arrival of the Spanish in 1519 A.D. Emphasis is on archaic cultures, the Maya, the Toltec, and Aztec empires. The second part of the course deals with Mexican history and modern relations between the United States and Mexico. The student may register for either History 110 or Anthropology 110 but may receive credit for only one of the two. (3 Lec.)

(ANT) 231 Introduction To Archeology (3)
This course is an anthropological approach to archeology. Topics include an introduction to the study of humanity's past. How archeologists retrieve, process, analyze and interpret surviving prehistoric materials is covered, as well as a survey of world prehistory through neolithic times. (3 Lec.)

ART

(ART) 104 Art Appreciation (3)
Films, lectures, slides, and discussions focus on the theoretical, cultural and historical aspects of the visual arts. Emphasis is on the development of visual and aesthetic awareness. (3 Lec.)

(ART) 105 Survey Of Art History (3)
This course covers the history of art from prehistoric time through the Renaissance. It explores the culture, geophysical, and personal influences on art styles. (3 Lec.)

(ART) 106 Survey Of Art History (3)
This course covers the history of art from the Baroque period through the present. It explores the cultural, geophysical and personal influences on art styles. (3 Lec.)

(ART) 110 Design I (3)
Basic concepts of design with two-dimensional materials are explored. The use of line, color, illusion of space or mass, texture, value, shape and size in composition is considered. (2 Lec., 4 Lab.)

(ART) 111 Design II (3)
Basic concepts of design with three-dimensional materials are explored. The use of mass, space, movement and texture is considered. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 114 Drawing I (3)
This beginning course investigates various media, techniques and subjects. It explores perceptual and descriptive possibilities and considers drawing as a developmental process as well as an end in itself. (2 Lec., 4 Lab.)

(ART) 115 Drawing II (3)
Prerequisite: Art 114. This course is an expansion of Art 114. It stresses the expressive and conceptual aspects of drawing, including advanced compositional arrangements, a range of wet and dry media, and the development of an individual approach to theme and content. (2 Lec., 4 Lab.)

(ART) 116 Jewelry Design and Construction (3)
This course explores the uses of metal in design, basic fabrication techniques in metal, bezel setting of stones, and simple casting. Emphasis is on original design. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 117 Advanced Jewelry Design and Construction (3)
Prerequisite: Art 116. This course continues Art 116. Advanced fabrication, lost wax casting, setting of faceted stones, and forging and shaping of metal, including repousse and chasing are presented. Emphasis is on original design. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 118 Creative Photography For The Artist I (3)
Prerequisites: Art 110, Art 114, or demonstrated competence approved by the instructor. Creative use of the camera is studied. Photosensitive materials are examined as a means of making expressive graphic images. Emphasis is black and white processing and printing techniques. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 119 Creative Photography For The Artist II (3)
Prerequisite: Art 118 or demonstrated competence approved by the instructor. This course is a continuation of Art 118. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 199 Problems in Contemporary Art (1)
Area artists, critics and art educators speak with students about the work exhibited in the gallery and discuss current art styles and movements. They also discuss specific aspects of being artists in contemporary society. This course may be repeated for credit. (1 Lec.)

(ART) 201 Drawing III (3)
Prerequisites: Art 110, Art 111, Art 115, sophomore standing or demonstrated competence approved by the instructor. This course covers the analytic and expressive drawing of the human figure. Movement and volume are stressed. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 202 Drawing IV (3)
Prerequisites: Art 201, sophomore standing or demonstrated competence approved by the instructor. This course continues Art 201. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 205 Painting I (3)
Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by the instructor. This studio course stresses fundamental concepts of painting with acrylics and oils. Emphasis is on painting from still life, models and the imagination. (2 Lec., 4 Lab.)

(ART) 206 Painting II (3)
Prerequisite: Art 205. This course continues Art 205. Emphasis is on individual expression. (2 Lec., 4 Lab.)

(ART) 208 Sculpture I (3)
Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by the instructor. Various sculptural approaches are explored. Different media and techniques are used. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 209 Sculpture II (3)
Prerequisite: Art 208. This course continues Art 208. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 215 Ceramics I (3)
Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by the instructor. This course focuses on the building of pottery forms by coil, slab and use of the wheel. Glazing and firing are also included. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 216 Ceramics II (3)
Prerequisite: Art 215 or demonstrated competence approved by the instructor. Glaze technology is studied. Advanced problems in the creation of artistic and practical ceramic ware. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 217 Watercolor I (3)
Prerequisites: Art 110, Art 111 and Art 115 or demonstrated competence approved by the instructor. This course explores studio techniques in water base media. Emphasis is placed on exploration of a variety of modes and techniques as a means to original expression. (2 Lec., 4 Lab.)

(ART) 218 Watercolor II (3)
Prerequisite: Art 217. This course continues the development of skills in water base media. (2 Lec., 4 Lab.)

(ART) 227 Design III (3)
Prerequisites: Art 110, 111, 114 and 115. This course is a development of two and three dimensional projects in a variety of materials. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

(ART) 229 Design IV (3)
Prerequisite: Art 227. This course is a continued investigation into the problems of two-and three-dimensional concepts. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

ASTRONOMY

(AST) 101 Descriptive Astronomy (3)
This course surveys the fundamentals of astronomy. Emphasis is on the solar system. Included is the study of the celestial sphere, the earth's motions, the moon, planets, asteroids, comets, meteors and meteorites. (This course is offered on campus and may be offered via television.) (3 Lec.)

(AST) 102 General Astronomy (3)
Stellar astronomy is emphasized. Topics include a study of the sun, the properties of stars, star clusters, nebulae, interstellar gas and dust, the Milky Way Galaxy and external galaxies. (3 Lec.)

(AST) 103 Astronomy Laboratory I (1)
Prerequisite: Credit or concurrent enrollment in Astronomy 101. The student uses simple equipment to make elementary astronomical observations of the motions of celestial objects. Also covered are elementary navigational techniques, graphical techniques of calculating the position of a planet or comet, and construction of simple observing equipment. This course includes night observations. Laboratory fee. (3 Lab.)

(AST) 104 Astronomy Laboratory II (1)
Prerequisite: Credit or concurrent enrollment in Astronomy 102. The student makes and uses elementary astronomical observations. Topics include timekeeping, the various uses of spectra, and the motions of stars and galaxies. This laboratory includes night observations. Laboratory fee. (3 Lab.)

AUTO BODY

(AB) 111 Basic Metal Principles (3)
Prerequisite: Concurrent enrollment in Auto Body 112. The use of hand and air tools is covered. Filling of plastic is included. Preparing the metal, sanding, masking, and priming surfaces on minor damages are emphasized. Laboratory fee (90 Contact Hours)

(AB) 112 Applied Basic Metal Principles (2)
Prerequisite: Concurrent enrollment in Auto Body 111. This course emphasizes hands-on use of hand and air tools used in metal repair. Techniques covered in Auto Body 111 will be applied to minor repair. Laboratory fee. (60 Contact Hours)

(AB) 113 Minor Metal Repair (3)
Prerequisite: Concurrent enrollment in Auto Body 114. Body construction and sheet metal alignment are studied. Emphasis is on the various techniques of applying plastic to minor damages. Laboratory fee. (90 Contact Hours)

(AB) 114 Applied Minor Metal Repair (2)
Prerequisite: Concurrent enrollment in Auto Body 113. This course emphasizes the hands-on techniques used in sheet metal alignment and damage correction. Procedures and tools included in Auto Body 113 will be covered. Laboratory fee. (60 Contact Hours)

(AB) 121 Basic Paint Principles (3)
Prerequisite: Concurrent enrollment in Auto Body 122. This course presents the use of sanders and other equipment. Sanding and applying primer and paint are stressed. The use and operation of the spray gun are covered. Laboratory fee. (90 Contact Hours)

(AB) 122 Applied Basic Paint Principles (2)
Prerequisite: Concurrent enrollment in Auto Body 121. This course will cover hands-on techniques in the use of power and hand sanding as well as use of the spray gun. The techniques covered in Auto Body 121 will be covered. Laboratory fee. (60 Contact Hours)

(AB) 123 Paint Blending And Spot Repair Techniques (3)
Prerequisite: Concurrent enrollment in Auto Body 124. The use of manufacturers' codes, mass and tint tone methods, and color selection are examined. Initial color matching, correction, and color tinting are covered. Spray gun maintenance, operation, patterns and corrective adjustments receive particular attention. Polishing, touch-up, and detailing procedures are studied. Topics include the use of rubbing compounds, polishes, and buffing techniques. Minor surface repairs are also included. Laboratory fee. (90 Contact Hours)

(AB) 124 Applied Blending And Spot Repair Techniques (2)
Prerequisite: Concurrent enrollment in Auto Body 123. This course examines potential problems that occur in the application of the finish on today's automobile. Recognition, prevention, and correction of problems are stressed. Laboratory fee. (60 Contact Hours)

(AB) 139 Body Shop Operations (3)
The basic business principles of managing an automobile service shop are studied. Emphasis is on management functions, financial analysis, and governmental regulations. (48 Contact Hours)

(AB) 211 Major Panel Replacement (3)
Prerequisite: Concurrent enrollment in Auto Body 212. The use of power tools and cutting tools is presented. Emphasis is on the repair and replacement of panels. Laboratory fee. (90 Contact Hours)

(AB) 212 Applied Major Panel Replacement (2)
Prerequisite: Concurrent enrollment in Auto Body 211. This course emphasizes repair and replacement of panels on in-service automobiles. The adjustment, repair and replacement of equipment and minor electrical apparatus are also covered. Laboratory fee. (60 Contact Hours)

(AB) 213 Major Collision And Frame Repair (3)
Students learn to use power frame alignment equipment through lecture, demonstration, and actual job repairs. Laboratory fee. (90 Contact Hours)

(AB) 221 Advanced Paint Techniques (3)
This course focuses on the development of painting skills. Emphasis is on mixing colors, matching colors, and texture. Special decorative effects are also covered, such as simulated wood and vinyl application. Transfer repair, renewal, removal, film application, painting and taping techniques are included. Laboratory fee. (90 Contact Hours)

(AB) 222 Applied Advanced Paint Techniques (2)
Prerequisite: Credit or concurrent enrollment in Auto Body 221. This course further develops painting skills with hands-on training, emphasizing mixing colors and matching color and texture of paint on in-service automobiles. Laboratory fee. (60 Contact Hours)

(AB) 225 Special Auto Body Applications (1)
This is a development course designed to allow students to program their own specialized objectives under instructional supervision. This will permit the student to upgrade existing skills or develop a new skill. This course may be repeated for credit as topics vary for a maximum of three credit hours. Laboratory fee. (30 Contact Hours)

(AB) 235 Estimating (3)
The procedures for estimating damage on automobiles are presented. (3 Lec.)

(AB) 245 Welding For Auto Body (3)
This course covers the basics of oxyacetylene welding, spot welding (electric), and electric arc welding. Laboratory fee. (90 Contact Hours)

(AB) 803 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(AB) 804 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

AUTOMOTIVE TECHNOLOGY

(AT) 109 Minor Vehicle Services (3)
This course introduces shop operations, customer relations, flat rate manuals, service manuals, safety, organizational design, pay structure, equipment, tools and basic operational theories. Also included are service procedures for lubrication, batteries, the cooling system, wheels and tires and new car pre-delivery service. Laboratory fee. (90 Contact Hours)

(AT) 110 Engine Repair I (4)
The operational theory of the internal combustion engine is studied. Engine rebuilding, mechanical diagnosis and failure analysis are introduced. Emphasis is on the proper use of hand tools, measuring instruments and equipment. Laboratory fee. (120 Contact Hours)

(AT) 112 Engine Repair II (4)
Prerequisite: Credit or concurrent enrollment in Automotive Technology 110. This course is a continuation of Automotive Technology 110. Engine rebuilding is continued with emphasis on in-service automotive repair. Laboratory fee. (120 Contact Hours)

(AT) 114 Engine Analysis And Tune-Up (4)
Techniques for diagnosing the automobile engine and other areas are covered. Electronics and conventional ignition systems are stressed. Carburetion and fuel injection systems are introduced. Complete tune-up procedures, using the latest test equipment are studied to insure the proper application to the automobile. Laboratory fee. (120 Contact Hours)

(AT) 116 Fuel And Emission Systems (4)
This course covers the principles and functions of the automotive fuel system including the carburetor, fuel pump, gas tank and emission control systems. Diagnosis and repair and adjustment of emission control systems, repair and adjustment of the carburetor, fuel injection and their components are stressed. Laboratory fee. (120 Contact Hours)

(AT) 119 Electrical Systems (3)
This course covers the automobile electrical system,

including batteries, wiring, lighting, alternators, generators, starters and voltage regulators. The use of electrical test equipment and schematics are covered. The proper care and use of tools is stressed. Laboratory fee. (90 Contact Hours)

(AT) 212 Special Automotive Applications (1)
This is a skill development course designed to allow students to program their own specialized objectives under instructional supervision. This course will permit the student to upgrade existing skills or develop a new skill. This course may be repeated for credit as topics vary for a maximum of three credit hours. Laboratory fee. (30 Contact Hours)

(AT) 222 Heating and Air Conditioning Systems (3)
This course focuses on the principles of operation and service techniques applied to automobile and air conditioning systems. Topics include components, testing, diagnosing, charging and repair practices. Laboratory fee. (90 Contact Hours)

(AT) 223 Brake Systems (4)
This course covers diagnosis and repair of both drum and disc brake systems, power brake boosters, master cylinders, wheel cylinders and related component parts. Laboratory fee. (120 Contact Hours)

(AT) 225 Front End Systems (4)
This course will cover the proper techniques and procedures for complete front-end service, wheel alignment, replacement of worn parts, balancing wheels and related front-end and steering mechanisms. Laboratory fee. (120 Contact Hours)

(AT) 227 Standard Transmission And Drive Trains (4)
This course includes the operating principles, construction, and maintenance of the manual transmission and related drive-train components. Laboratory fee. (120 Contact Hours)

(AT) 229 Automatic Transmissions I (4)
The theory, operation and diagnosis of automatic transmissions are studied. Rebuilding of automatic transmission is introduced. Laboratory fee. (120 Contact Hours)

(AT) 231 Automatic Transmissions II (4)
Prerequisite: Credit or concurrent enrollment in Automotive Technology 229. This course is a continuation of Automotive Technology 229. Transmission rebuilding is continued with emphasis on in-service automobile repair. Laboratory fee. (120 Contact Hours)

(AT) 248 Automotive Electronics (3)
Prerequisite: Automotive Technology 118 or demonstrated competence approved by the instructor. A study of solid state and microprocessor electronics used in the automotive electrical system with emphasis on diagnostic and troubleshooting procedures and use of test equipment. Laboratory fee. (90 Contact Hours)

(AT) 703, 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience) (1 Lec., 15 Lab.)

(AT) 704, 714, 804, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

BIOLOGY

(BIO) 101 General Biology (4)
This course is intended for students majoring and minoring in biology and related disciplines. It is a prerequisite for all higher level biology courses. Topics include the scientific method, fundamental general and biological chemistry, cell structure and function including membrane transport, cell reproduction, cell energetics and homeostatic mechanisms. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 102 General Biology (4)
This course is a continuation of Biology 101 and is intended for students majoring and minoring in biology and related disciplines. Topics include Mendelian and molecular genetics, developmental biology, evolution and the diversity of life, and ecology. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 110 Introductory Botany (4)
This course introduces plant form and function. Topics ranging from the cell through organs are included. Emphasis is on the vascular plants, including the taxonomy and life cycles of major plant divisions. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 115 Biological Science (4)
Selected topics in biological science are presented for the non-science major. Topics include the cell concept and basic chemistry as it relates to biology. An introduction to genetics, evolution, cellular processes, such as mitosis, meiosis, respiration, and photosynthesis, and plant and animal reproduction is also covered. Laboratory fee. (This course is offered on campus and may be offered via television.) (3 Lec., 3 Lab.)

(BIO) 116 Biological Science (4)
Selected topics in biological science are presented for the non-science major. Topics include the systems of the human body, disease, drug abuse, aging, evolution, ecology, and people in relation to their environment. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 120 Introduction To Human Anatomy And Physiology (4)
Prerequisite: Prior enrollment in Biology 115 is recommended for those with no previous high school biology. Major topics include cell structure and function, tissues, organization of the human body, and the following organ systems: skeletal, muscular, nervous, and endocrine. This course is a foundation course for specialization in Associate Degree Nursing and allied health disciplines. Other students interested in the study of structure and function of the human body should consult a counselor. Emphasis is on homeostasis. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 121 Introduction To Human Anatomy And Physiology (4)
Prerequisite: Biology 120. This course is a continuation of Biology 120. Major topics include the following organ systems: digestive, circulatory, respiratory, urinary, and reproductive. Emphasis is on homeostasis. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 123 Applied Anatomy And Physiology (4)
This course surveys human anatomy and physiology. The various body systems are studied and examined. This course is suggested for students of the health occupations in accordance with their program requirements. It is open to other students. This course will apply toward meeting the science requirement for non-science majors. No previous science background is presumed. Laboratory fee. (3 Lec., 2 Lab.)

(BIO) 203 Intermediate Botany (4)
Prerequisites: Biology 101 and 102. The major plant groups are surveyed. Emphasis is on morphology, physiology, classification, and life cycles. Evolutionary relationships of plants to each other and their economic importance to humans are also covered. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 211 Invertebrate Zoology (4)
Prerequisite: Eight hours of biological science. This course surveys the major groups of animals below the level of chordates. Consideration is given to phylogeny, taxonomy, morphology, physiology, and biology of the various groups. Relationships and importance to higher animals and humans are stressed. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 216 General Microbiology (4)
Prerequisite: Biology 102 or 121 or demonstrated competence approved by the instructor. Topics include growth, reproduction, nutrition, genetics, and ecology of microorganisms, as well as aspects of microbial disease, immunology and chemotherapy. Laboratory activities constitute a major part of the course. Laboratory fee. (3 Lec., 4 Lab.)

(BIO) 218 Field Biology (3)
Local plant and animal life are surveyed in relationship to the environment. Aquatic and terrestrial communities are studied with reference to basic ecological principles and techniques. Emphasis is upon classification, identification, and collection of specimens in the field. This course may be repeated for credit. (2 Lec., 4 Lab.)

(BIO) 221 Anatomy And Physiology I (4)
Prerequisite: Biology 102 or demonstrated competence approved by the instructor. This course examines cell structure and function, tissues, and the skeletal, muscular, and nervous systems. Emphasis is on structure, function, and the interrelationships of the human systems. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 222 Anatomy and Physiology II (4)
Prerequisite: Biology 221 or demonstrated competence approved by the instructor. This is the second course of a two course sequence. Structure and function as related to the human circulatory, respiratory, urinary, digestive, reproductive, and endocrine systems are studied. Emphasis is placed on the inter-relationships of these systems. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 223 Environmental Biology (3)
The principles of aquatic and terrestrial communities are presented. Emphasis is on the relationship of these principles to the problems facing people in a modern technological society. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 226 Genetics (4)
This course focuses on genetics. Topics include Mendelian inheritance, recombination genetics, the biochemical theory of genetic material, and mutation theory. Plant and animal materials are used to study population genetics, linkage, gene structure and function, and other concepts of heredity. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 230 Mammalian Physiology (4)
Prerequisite: Twelve hours of biology, eight hours of inorganic chemistry or concurrent registration in organic chemistry and demonstrated competence approved by the instructor. This course is a study of the function of various mammalian systems. Emphasis is on interrelationships. Instruments are used to measure various physiological features. Laboratory fee. (3 Lec., 3 Lab.)

(BIO) 235 Comparative Anatomy of the Vertebrates (4)
Prerequisites: Biology 101 and 102. For science majors and pre-medical and pre-dental students. Major groups of vertebrates are studied. Emphasis is on morphology and evolutionary relationships. Laboratory fee. (3 Lec., 4 Lab.)

BLUEPRINT READING

(BPR) 177 Blueprint Reading (2)
Engineering drawings are described and explained. Topics include multiview projection, sections, auxiliaries, bill of materials, symbols, notes, conventions, and standards. The skills of visualization, dimensioning, and sketching of machine parts are covered. (I Lec., 3 Lab.)

(BPR) 178 Blueprint Reading (2)
Prerequisite: Blueprint Reading 177. The different types of prints are read. More complex prints are included. Types of

prints include machine, piping, architectural, civil, structural, electrical, electronic, numerical control documents, and aircraft. Calculations required in blueprint reading are emphasized. (1 Lec., 3 Lab.)

BUSINESS

(BUS) 105 Introduction to Business (3)
This course provides an introduction to business operations. Topics include: the business system, legal forms of business, organization and management, business functions (production, marketing, finance, risk management, information systems, accounting) and the environments affecting business (the economy, labor, government regulation, social responsibility, law, international business, and technology). (This course is offered on campus and may be offered via television.) (3 Lec.)

(BUS) 143 Personal Finance (3)
Personal financial issues are explored. Topics include financial planning, insurance, budgeting, credit use, home ownership, savings, investment, and tax problems. (3 Lec.)

(BUS) 234 Business Law (3)
This course presents the legal principles affecting business decisions. The law of contracts, agency sales, negotiable instruments, and secured transactions are specifically covered. (3 Lec.)

(BUS) 237 Organizational Behavior (3)
The persisting human problems of administration in modern organizations are covered. The theory and methods of behavioral science as they relate to organizations are included. (3 Lec.)

CHEMISTRY

(CHM) 101 General Chemistry (4)
Prerequisites: Developmental Mathematics 093 or equivalent and any one of the following: high school chemistry, Chemistry 115, or the equivalent. This course is for science and science-related majors. Fundamental concepts of chemistry are presented including states and properties of matter, the periodic table, chemical reaction types and energy relationships, chemical bonding, atomic and molecular structure, stoichiometry, gas laws and solutions. Laboratory fee. (3 Lec., 3 Lab.)

(CHM) 102 General Chemistry (4)
Prerequisite: Chemistry 101. This course is for science and science-related majors. It is a continuation of Chemistry 101. Previously learned and new concepts are applied. Topics include reaction kinetics and chemical equilibrium, acids, bases, salts and buffers, thermodynamics, colligative properties of solutions, electrochemistry, transition-metal chemistry, nuclear chemistry, qualitative inorganic analysis and an introduction to organic chemistry. Laboratory fee. (3 Lec., 3 Lab.)

(CHM) 115 Chemical Science (4)
Prerequisite: Developmental Mathematics 091 or the equivalent. This course is for non-science majors. Fundamental concepts are presented in lecture and laboratory including the periodic table, atomic structure, chemical bonding, reactions, stoichiometry, states of matter, properties of metals, nonmetals and compounds, acid-base theory, oxidation-reduction, solutions and nuclear chemistry. Descriptive chemistry is emphasized. Laboratory fee. (3 Lec., 3 Lab.)

(CHM) 116 Chemical Science (4)
Prerequisite: Chemistry 115 or demonstrated competence approved by the instructor. This course is for non-scientific majors. It surveys organic chemistry and biochemistry. The reactions, syntheses, nomenclature, uses, purposes and properties of the important classes of organic and biochemical compounds are studied. Laboratory fee. (3 Lec., 3 Lab.)

(CHM) 170 Chemistry of Flammable Materials (3)
Prerequisite: Chemistry 116. Characteristics and behavior of various materials that burn or react violently are studied. Flammable liquids, combustible solids, and gases are included. Storage, transportation, and handling are covered. Emphasis is on emergency situations and methods of control. (3 Lec.)

(CHM) 201 Organic Chemistry I (4)
Prerequisite: Chemistry 102. This course is for science and science-related majors. It introduces the fundamental classes of organic (carbon) compounds and studies aliphatic and aromatic hydrocarbons in detail. It includes occurrence, structure, stero-chemistry, nomenclature, and reactions and mechanisms of synthesis. Lab includes: synthesis, purification by distillation, recrystallization, extraction and chromatography, and identification by spectroscopic, physical and chemical methods. Laboratory fee. (3 Lec., 4 Lab.)

(CHM) 202 Organic Chemistry II (4)
Prerequisite: Chemistry 201. This course is for science and science-related majors. It is a continuation of Chemistry 201. Topics studied include properties and syntheses of aliphatic and aromatic systems of aldehydes, ketones, carboxylic acids, esters, ethers, amines, alcohols and amides. Further topics include polyfunctional and heterocyclic compounds, amino acids, proteins, lipids and carbohydrates. Laboratory includes qualitative organic analysis. Laboratory fee. (3 Lec., 4 Lab.)

(CHM) 203 Quantitative Analysis (4)
Prerequisites: Chemistry 102, Mathematics 101. A survey of methods used in analytical chemistry: gravimetric and volumetric methods based on equilibria, oxidation-reduction, and acid-base theory, spectrophotometry, chromatography and electroanalytical chemistry. (2 Lec., 6 Lab.)

(CHM) 205 Chemical Calculations (2)
Prerequisite: Chemistry 102. Chemical calculations are reviewed. Emphasis is on stoichiometry and chemical equilibrium. (2 Lec.)

(CHM) 234 Instrumental Analysis (4)
Prerequisite: Chemistry 203 or demonstrated competence approved by the instructor. The role of modern electronic instrumentation in analysis is explored. Topics include infrared and ultraviolet spectroscopy, gas chromatography, potentiometric titration, electrochemistry, continuous flow

analysis, scintillation counting, eletrophoresis, flame photometry, and atomic absorption spectrophotometry as analytical tools. Laboratory fee. (2 Lec., 6 Lab.)

CHILD DEVELOPMENT

(CD) 100 Directed Participation Of Early Childhood Programs (1)
This course provides in-depth observation and participation experiences and activities with young children at the Parent/Child Study Center and other appropriate child-care facilities. It is repeated four times concurrently with required Child Development core or elective courses. (30 Contact Hours)

(CD) 125 Infant And Toddler Learning Environments Activities And Materials (4)
This course is a study of appropriate learning experiences for infants and toddlers in child-care facilities. Emphasis is on quality environments, learning activities, materials and effective teaching techniques. The laboratory experience includes observing and participating in the Parent/Child Study Center and community child-care facilities. Laboratory fee. (3 Lec., 2 Lab.)

(CD) 127 Early Childhood Development, 5-12 Years (3)
This course covers the principles of normal child growth and development from five through twelve years of age. Emphasis is on physical, intellectual, emotional, and social growth. Special attention is given to before and after school care. (3 Lec.)

(CD) 135 Introduction To Early Childhood Programs And Services (4)
This course is a study of historical and current early childhood development programs and services, as well as individuals influencing these programs. Laws and standards regulating these child-care facilities are covered. The laboratory experience includes observation of and participation with pre-schools and child-care centers in the community. Laboratory fee. (3 Lec., 2 Lab.)

(CD) 137 Early Childhood Learning Environments, Activities And Materials (4)
This course is a study of appropriate learning experiences for young children in child-care facilities. Emphasis is on quality environments, learning activities, materials and effective teaching techniques. The laboratory experience includes observation and participation in the Parent/Child Study Center and community child-care facilities. Laboratory fee. (3 Lec., 2 Lab.)

(CD) 140 Early Childhood Development, 0-3 Years (3)
This course covers the principles of normal child growth and development from conception through three years. Emphasis is on physical, intellectual, emotional, and social growth. (3 Lec.)

(CD) 141 Early Childhood Development, 3-5 Years (3)
This course covers the principles of normal child growth and development from three through five years of age. Emphasis is on physical, intellectual, emotional, and social growth. (3 Lec.)

(CD) 150 Nutrition, Health And Safety Of The Young Child (3)
Practical experience and information on the nutritional, health, and safety needs of the young child are provided. A survey of community services for parents and teachers is included. Students earn a first aid certificate during this course. Laboratory fee. (2 Lec., 2 Lab.)

(CD) 200 Application Of Learning Theories (1)
This course provides application of child development learning theories with young children at the Parent/Child Study Center and other appropriate child-care facilities. It is repeated four times concurrently with required Child Development core or elective courses. (30 Contact Hours)

(CD) 203 Parents And The Child Caregiver/Teacher (3)
Relationships between caregivers, teacher and parents of young children are studied. Emphasis is on ways to develop parental involvement in child-care facilities. The course includes observation and participation with teachers, parents, and young children in group settings. (3 Lec.)

(CD) 209 Early Childhood Development Special Projects (3)
Registration for this course must be preceded by an interview with a child development instructor. A particular dimension of child-care is explored in depth by the student in an individual project. Participation in a designated child-care center or facility directly related to the student's special project is included. This course is repeatable for credit as topics vary. (3 Lec.)

(CD) 233 Directed Participation Of Early Childhood Programs (4)
This course provides in-depth observation and participation experiences and activities with young children at the Parent/Child Study Center and other appropriate child-care facilities. Laboratory fee. (2 Lec., 5 Lab.)

(CD) 236 The Special Child: Growth And Development (3)
Children with special needs are studied with emphasis on physical, mental, and emotional/behavioral problems. This course provides a broad overview of these problem areas and serves as an introduction to the study of exceptional children. (3 Lec.)

(CD) 239 Studies In Child Guidance (3)
This course is a study of appropriate ways of guiding and teaching young children. Emphasis is on guidance principles that develop a positive self-concept in early childhood while recognizing individual differences and varied family situations. The course includes observation of and participation with young children in child-care facilities and interpretation of anecdotal records and case studies of young children. Laboratory fee. (2 Lec., 2 Lab.)

(CD) 244 Application Of Child Development Learning Theories (4)
This course provides application of child development learning theories with young children at the Parent/Child Study Center and other appropriate child-care facilities. Laboratory fee. (2 Lec., 5 Lab.)

(CD) 250 Supportive Services For Exceptional Children (3)
The focus of this course is on identifying local, state, and 10 national resources for exceptional children and their families. Referral and resource information for special children is gathered through field studies, community involvement, and independent activities. (3 Lec.)

(CD) 251 Learning Programs For Children With Special Needs (4)
This course focuses on successful model programs for encouraging maximum learning from young children with special needs. Materials, activities, and methods of working with children are examined. Laboratory fee.
(2 Lec., 5 Lab.)

(CD) 253 Abuse Within The Family (3)
The symptoms and causes of abusive behaviors within the family are the focus of this course. Emphasis is on developing skills and competencies in working with these families to help them lessen and alleviate abusive behaviors and experiences. Laboratory fee. (2 Lec., 2 Lab.)

(CD) 254 Introduction to Administration of Child Care Programs (3)
The management of preschooliday care centers is studied. Topics include budgeting, record-keeping, food, health and referral services, and personnel practices. Laboratory fee. (2 Lec., 2 Lab.)

(CD) 256 Advanced Administrative Practices for Child Care Facilities (3)
Prerequisite: Child Development 254. This course is a study of advanced administrative procedures for child-care programs. Topics include planning, financial management, personnel policies, evaluation, leadership styles, and facility design. Laboratory fee. (2 Lec., 2 Lab.)

(CD) 812 Cooperative Work Experience (2)
(See Cooperative Work Experience) (1 Lec., 10 Lab.)

(CD) 813 Cooperative Work Experience (3)
(See Cooperative Work Experience) (1 Lec., 15 Lab.)

(CD) 814 Cooperative Work Experience (4)
(See Cooperative Work Experience) (1 Lec., 20 Lab.)

COLLEGE LEARNING SKILLS

(CLS) 100 College Learning Skills (1)
This course is for students who wish to extend their learning skills for academic or career programs. Individualized study and practice are provided in reading, study skills and composition. This course may be repeated for a maximum of three credits. (I Lec.)

COMMUNICATIONS

(COM) 131 Applied Communications (3)
This course focuses on student writing. It emphasizes reading and analytical thinking skills and introduces research skills. Students practice writing for a variety of audiences and purposes, primarily job-related. (3 Lec.)

COMPUTER INFORMATION SYSTEMS

(CIS) 103 Introduction to Computer Information Systems (3)
This course provides an overview of computer information systems. Topics include history of computers, vocabulary, cultural impact, procedures and systems, development of basic algorithms, and number systems. The fundamentals of computer problem-solving are applied through the use of the BASIC programming language and microcomputer software packages. Laboratory fee. (This course is offered on campus and may be offered via television.) (3 Lec., 1 Lab.)

(CIS) 108 PC Software Applications (4)
This course surveys the use of the microcomputer in conducting professional activities and solving business problems. Topics include the study of hardware and software components of a microcomputer, the function of operating systems and the study and use of contemporary software application packages. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 111 Data Entry Applications and Concepts (3)
Prerequisites: Office Careers 176 or one year typing in high school or demonstrated competence approved by the instructor. This course provides hands on experience using a personal computer for data entry applications. Students will learn to use a data entry utility program to create, change, and modify data sets, as well as enter variable data. Speed and accuracy will be stressed. Laboratory fee. (2 Lec., 4 Lab.)

(CIS) 114 Problem Solving With The Computer (4)
Prerequisites: Business 105 or Management 136 and Computer Information Systems 103 or Computer Information Systems 108, or demonstrated proficiency approved by instructor. This course explores methods of solving business problems with the use of a microcomputer. Analysis and design methods are studied and applied to practical situations involving various business functions. Data security and privacy issues are also considered. (3 Lec., 2 Lab.)

(CIS) 118 Text Processing Applications (3)
Prerequisites: Computer Information Systems 108 or demonstrated proficiency approved by the instructor. This course covers text entry and editing, reformatting, search and replace, cut-and-paste, file and print operations, utilities including spelling checkers, outliners, and office productivity tools. Office automation concepts including desktop publishing, facsimile and networking are covered. Students will learn to use two commercially available text processors. Laboratory fee. (2 Lec., 3 Lab.)

(CIS) 150 Computer Program Logic and Design (3)
Prerequisite: Computer Information Systems 103 or demonstrated competence approved by the instructor. This course presents basic logic needed for problem solving with the computer. Topics include structured design tools and their application to general business problems. (3 Lec.)

(CIS) 160 Data Communications (3)
Prerequisite: Computer Information Systems 103. This course provides an introduction to data communications vocabulary, concepts, and uses. Topics include data communications hardware, software, networks, and protocols. (3 Lec.)

(CIS) 162 COBOL Programming I (4)
Prerequisites: Computer Information Systems 103, credit or concurrent enrollment in Computer Information Systems 150, or demonstrated competence approved by the instructor. This course develops structured programming skills using the COBOL language. Topics include input/output, comparisons, control breaks, introductory table concepts, and report formats. Skills in problem analysis, using design tools, coding, testing, and documentation are also developed. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 164 COBOL Programming II (4)
Prerequisites: Computer Information Systems 150 and 162 or demonstrated competence approved by the instructor. This course continues the development of programming skills using the COBOL language. Topics include advanced table concepts, sort techniques, disk file organizations and maintenance, debugging techniques, copy techniques, and subprograms. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 167 C Programming (4)
Prerequisite: Six credit hours in programming language courses, or demonstrated competence approved by the instructor. This course covers the fundamentals of the C Programming language. Topics include structured programming and problem solving techniques. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 168 4th Generation Language Concepts (3)
Prerequisite: Three credit hours in a programming language course or demonstrated competence approved by the instructor. This course presents an introduction to 4th generation languages and their relationship to software productivity. Topics include survey and definition of available products and their uses, current functions, evaluation standards, selection and implementation. Laboratory fee. (2 Lec., 2 Lab.)

(CIS) 170 RPG Programming (3)
Prerequisite: Three credit hours in a programming language course, or demonstrated competence approved by the instructor. This course introduces programming skills using the RPG II language. Topics include basic listings with levels of totals, multi-record input, exception reporting, look-ahead feature, and multi-file processing. Laboratory fee. (2 Lec., 2 Lab.)

(CIS) 172 BASIC Programming (3)
Prerequisite: Computer Information Systems 103 or demonstrated competence approved by the instructor. This course covers the fundamentals of the BASIC programming language. Topics include structured program development, Input/Output operations, interactive concepts and techniques, selection and iteration, arrays, functions, string handling, and file processing. Laboratory fee. (2 Lec., 2 Lab.)

(CIS) 173 Pascal Programming for Business (3)
Prerequisites: Three credit hours in a programming language course, or demonstrated competence approved by the instructor. This course is an introduction to the Pascal programming language. Topics will include structured programming and problem-solving techniques as they apply to business applications. Laboratory fee. (2 Lec., 2 Lab.)

(CIS) 205 JCL and Operating Systems (4)
Prerequisite: Credit or concurrent enrollment in Computer Information Systems 164 or Computer Information Systems 116 or demonstrated competence approved by the instructor. This course introduces mainframe operating system concepts, terminology, job control language, and utilities. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 210 Assembly Language I (4)
Prerequisites: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course focuses on basic concepts and instructions using a current mainframe assembler language and structured programming techniques. Topics include decimal features, fixed point operations using registers, selected macro instructions, introductory table concepts, editing printed output, and reading memory dumps. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 215 Micro Assembly Language (4)
Prerequisite: Six credit hours in programming language courses or demonstrated competence approved by the instructor. The basic elements of the assembler language are introduced and structured programming and top-down design techniques are applied. Topics include architecture and machine definition, data description and other assembler pseudo-ops, logic and shift, arithmetic processing, table concepts, printing, string and screen processing, macro definition, and disk processing. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 218 Spreadsheet Applications (4)
Prerequisites: Computer Information Systems 108 and Computer Information Systems 114 or demonstrated competence approved by the instructor. Using a commercially available spreadsheet package, this course covers the theory and uses of electronic spreadsheets including formula creation, template design, formatting features, statistical, mathematical and financial functions, file operations, report generation, graphics, and macro programming. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 220 Assembly Language II (4)
Prerequisite: Computer Information Systems 210 or demonstrated competence approved by the instructor. Advanced programming skills will be developed using a current mainframe assembler language. Topics include advanced fixed point operations, indexing, disk file organization and maintenance, advanced table concepts, data and bit manipulation techniques, macro writing, subprogram linkages, advanced problem anaylsis, debugging techniques, and introduction to floating point operations. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 225 Systems Analysis and Design (4)
Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course introduces and develops skills to analyze existing business systems and to design new systems using structured methodology. Emphasis is on a case study involving all facets of systems analysis and design. (3 Lec., 4 Lab.)

(CIS) 254 Data Base Systems (4)
Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course is an introduction to applications program development in a data base environment with emphasis on loading, modifying, and querying a data base. Topics include discussion and application of data structures, indexed and direct file organizations, data analysis, design, implementation, and data management. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 258 On-Line Applications (4)
Prerequisites: Computer Information Systems 160 and 164 or demonstrated competence approved by the instructor. This course covers teleprocessing monitors and introduces the concepts required to program on-line applications. Topics include on-line applications design, the functions of a teleprocessing monitor, program coding techniques, testing methods, and file handling. The CICS Command Level interface to the COBOL language will be used. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 260 Contemporary Topics in Computer Information Systems (1)
Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. (1 Lec.)

(CIS) 262 Contemporary Topics in Computer Information Systems (3)
Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. (3 Lec.)

(CIS) 263 Special Topics in Computer Information Systems (3)
Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Current developments in the rapidly changing field of computer information systems are studied. May be repeated when topics vary. Laboratory fee. (2 Lec., 2 Lab.)

(CIS) 265 Special Topics in Computer Information Systems (4)
Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Current developments in the rapidly changing field of computer information systems are studied. May be repeated when topics vary. Laboratory fee. (3 Lec., 4 Lab.)

(CIS) 272 Advanced BASIC Techniques (3)
Prerequisite: Computer Information Systems 172 or demonstrated competence approved by the instructor. This course continues the development of programming skills using the BASIC language and its application to typical business problems. Laboratory fee. (2 Lec., 2 Lab.)

(CIS) 701, 711, 801, 811 Cooperative Work Experience (1)
(See Cooperative Work Experience) (1 Lec., 5 Lab.)

(CIS) 702, 712, 802, 812 Cooperative Work Experience (2)
(See Cooperative Work Experience) (1 Lec., 10 Lab.)

(CIS) 703, 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience) (1 Lec., 15 Lab.)

(CIS) 704, 714, 804, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience) (1 Lec., 20 Lab.)

COMPUTER SCIENCE

(CS) 111 Computing Science I (3)
Prerequisite: Two years of high school algebra or Developmental Math 093 or demonstrated competence approved by the instructor. This introductory course is designed to meet the requirements for a four-year degree with a major or minor in computer science, mathematics, or a scientific field. Topics covered include computer organization and storage, number systems, and problem-solving using structured programming in Pascal. Laboratory fee. (3 Lec.)

(CS) 112 Computing Science II (3)
Prerequisites: Computer Science 111 and Math 101 or demonstrated competence approved by the instructor. This course is a continuation of Computer Science 111 and is designed to meet the requirements for a degree in computer science or a related field. Topics covered include a continuation of Pascal programming, structured problem solving, elementary data structures including arrays, records, files, and the use of pointer variables. Laboratory fee. (2 Lec., 2 Lab.)

(CS) 121 Introduction to FORTRAN Programming (3)
Prerequisite: Math 102 or demonstrated competence approved by the instructor. This course is intended primarily for students pursuing a degree in an engineering, science, or a related field who require a one-semester course in FORTRAN programming. Emphasis is on the use of the FORTRAN language in technical applications. Topics include input/output, structures, and formatting. Laboratory fee. (2 Lec., 2 Lab.)

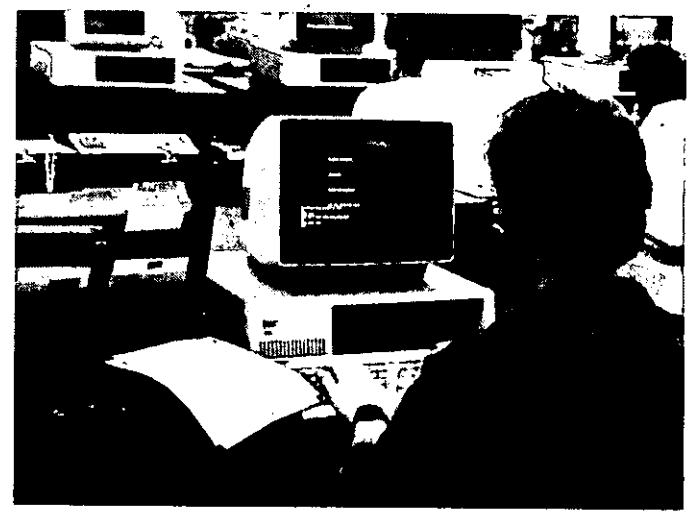
(CS) 122 Introduction to BASIC Programming (3)
Prerequisite: Developmental Math 093 or demonstrated competence approved by the instructor. This course is an introduction to the BASIC programming language. Topics include input/output, looping, decision structures, functions, arrays, disk files, and formatting. Emphasis is placed on structured programming techniques and algorithm development. Laboratory fee. (2 Lec., 2 Lab.)

(CS) 123 Introduction to PL/I Programming (3)
Prerequisites: Developmental Math 093 and Computer Science 111 or Computer Information Systems 105 or demonstrated competence approved by the instructor. This course is an introduction to the PL/I programming language. Emphasis is placed upon the structured approach to program design using both mathematical and business applications. Topics include string processing, simple data structures, internal search/sort techniques, and sequential file processing. Laboratory fee. (2 Lec., 2 Lab.)

(CS) 211 Assembly Language (3)
Prerequisite: Computer Science 112 or demonstrated competence approved by the instructor. This course is designed to meet the requirements for a degree in computer science or a related field. Topics covered include a study of assembly language programming, machine representation of data and instructions, and addressing techniques. Laboratory fee. (2 Lec., 2 Lab.)

(CS) 221 Introduction to Computer Organization (3)
Prerequisite: Computer Science 112 or demonstrated competence approved by the instructor. This course introduces the organization and structuring of the major hardware components of computers, the mechanics of information transfer and control within a digital computer system, and the fundamentals of logic design. Laboratory fee. (2 Lec., 2 Lab.)

(CS) 222 Introduction to File Processing (3)
Prerequisite: Computer Science 112 or demonstrated competence approved by the instructor. This course introduces the concepts and techniques of structuring data. Experience is provided in the use of secondary storage devices and applications of data structures and file processing techniques. Laboratory fee. (2 Lec., 2 Lab.)



COOPERATIVE WORK EXPERIENCE

701, 711, 801, 811 Cooperative Work Experience (1)
(1 Lec., 5 Lab.)

702, 712, 802, 812 Cooperative Work Experience (2)
(1 Lec., 10 Lab.)

703, 713, 803, 813 Cooperative Work Experience (3)
(1 Lec., 15 Lab.)

704, 714, 804, 814 Cooperative Work Experience (4)
(1 Lec., 20 Lab.)

Prerequisite: Completion of two courses in the student's major or instructor or coordinator approval. These courses consist of seminars and on-the-job experience. Theory and instruction received in the courses of the student's major curricula are applied to the job. Students are placed in work-study positions in their technical occupational fields. Their skills and abilities to function successfully in their respective occupations are tested. These work internship courses are guided by learning objectives composed at the beginning of each semester by the students, their instructors or coordinators, and their supervisors at work. The instructors determine if the learning objectives are valid and give approval for credit.

DANCE

(DAN) 155 Jazz I (1)
The basic skills of jazz dance are introduced. Emphasis is on technique and development, rhythm awareness, jazz styles, and rhythmic combinations of movement. Laboratory fee. (3 Lab.)

(DAN) 156 Jazz II (1)
Prerequisite: Dance 155 or demonstrated competence approved by the instructor. Work on skills and style in jazz dance is continued. Technical skills, combinations of steps and skills into dance patterns, and exploration of composition in jazz form are emphasized. Laboratory fee. (3 Lab.)

(DAN) 161 Beginning Ballet 1 (2)
This course explores basic ballet techniques. Included are posture, balance, coordination, rhythm, and flow of physical energy through the art form. Theory, terminology, ballet

history, and current attitudes and events in ballet are also studied. Barre exercises and centre floor combinations are given. Laboratory fee. (1 Lec., 3 Lab.)

(DAN) 163 Beginning Ballet II (2)
Prerequisite: Dance 161. This course is a continuation of Dance 161. Emphasis is on expansion of combinations at the barre. Connecting steps learned at centre are added. Jumps and pirouettes are introduced. Laboratory fee. (1 Lec., 3 Lab.)

DEVELOPMENTAL COMMUNICATIONS

(DC) 095 Communication Skills (3)
This course focuses on strengthening language communications. Topics include grammar, paragraph structure, reading skills, and oral communication. Emphasis is on individual testing and needs. (3 Lec.)

DEVELOPMENTAL LEARNING

(DL) 094 Learning Skills Improvement (1)
Learning skills are strengthened. Emphasis is on individual needs and personalized programs. This course may be repeated for a maximum of three credits. (2 Lab.)

DEVELOPMENTAL MATHEMATICS

(DM) Developmental Mathematics
Developmental Mathematics courses offer a review of mathematical skills. Developmental Mathematics 093 satisfies prerequisites for Mathematics 101, 111, 115, 116, and 117. Developmental Mathematics 091 satisfies prerequisites for Mathematics 130 and 195.

(DM) 090 Pre Algebra Mathematics (3)
This course is designed to develop an understanding of fundamental operations using whole numbers, fractions, decimals, and percentages and to strengthen basic skills in mathematics. The course is planned primarily for students who need to review basic mathematical processes. This is the first three-hour course in the developmental mathematics sequence. (3 Lec.)

(DM) 091 Elementary Algebra (3)
Prerequisite: Developmental Mathematics 090 or an appropriate assessment test score. This is a course in introductory algebra which includes operations on real numbers, polynomials, special products and factoring, rational expressions, and linear equations and inequalities. Also covered are graphs, systems of linear equations, exponents, roots, radicals, and quadratic equations. (3 Lec.)

(DM) 093 Intermediate Algebra (3)
Prerequisite: One year of high school algebra and an appropriate assessment test score or Developmental Mathematics 091. This course includes further development of the terminology of sets, operations on sets, properties of real numbers, polynomials, rational expressions, linear equations and inequalities, the straight line, systems of linear equations, exponents, roots, and radicals. Also covered are products and factoring, quadratic equations and inequalities, absolute value equations and inequalities, relations, functions, and graphs. (3 Lec.)

DEVELOPMENTAL READING

Students can improve their performance in English courses by enrolling in Developmental Reading courses. Developmental Reading 090 and 091 are valuable skill development courses for English 101. Reading 101 is especially helpful in courses that require a considerable amount of college-level reading. See the catalog descriptions in reading for full course content.

(DR) 090 Basic Reading Skills (3)
Development of comprehension and vocabulary skills, based on individual needs, is the focus of this course. Basic study skills are introduced. A score of 12 to 19 on the Descriptive Test of Language Skills Reading Comprehension Test would indicate that a student has the reading skills needed for this course. (3 Lec.)

(DR) 091 Preparation for College Reading (3)
This course emphasizes development of comprehension and vocabulary skills, according to individual needs. Also included are critical reading, rate flexibility, and basic study skills. A score of 20 to 27 on the Descriptive Test of Language Skills Reading Comprehension Test would indicate that a student has the reading skills needed for this course. (3 Lec.)

DEVELOPMENTAL WRITING

(DW) Developmental Writing
Students can improve their writing skills by taking Developmental Writing. These courses are offered for one to three hours of credit.

(DW) 090 Developmental Writing (3)
This course introduces the writing process. Course topics include practice in getting ideas, writing and rewriting, making improvements, and correcting mistakes. A learning lab is available to provide additional assistance. (3 Lec.)

(DW) 091 Developmental Writing (3)
This course focuses on the writing process. Course topics include inventing, drafting, revising and editing multi-paragraph papers. Building reading skills, using resources, developing thinking skills and improving attitudes toward writing comprise other course topics. A learning lab is available to provide additional assistance. (3 Lec.)

(DW) 092 Developmental Writing (1)
This course is a writing workshop designed to support students enrolled in English 101 and other courses requiring writing. (3 Lab.)

DRAFTING & COMPUTER AIDED DESIGN

(DFT) 135 Reproduction Processes (2)
Equipment and processes used to reproduce technical art are studied. Included are the graphic arts process camera, lithographic offset printing, diazo reproduction, blueprinting, photodrafting, microfilming, photocopying, silk screen printing, printed circuit board etching, thermography, typographics, xerography, engravings, and others. The rapidly expanding field of computer graphics is also covered. Lab work includes the preparation of flats for offset printing of brochures. Laboratory fee. (I Lec., 3 Lab.)

(DFT) 136 Geological and Land Drafting (3)
Prerequisite: Drafting 183 or the equivalent and Mathematics 196. Equivalence is based on high school drafting courses or on student's work experience. Sample of drawings and/or high school transcript must be presented. This is a specialty course to prepare one to work in civil drafting. Various drawings are completed, such as relief maps, plan and profile drawings, roadways, pipelines, and petroleum and geophysical maps. Calculations are made from surveyor's notes to plot traverse and contour lines and to determine areas and volume. A set of drawings is prepared for residential subdivision, a shopping center, or some other type of land development. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 160 Manufacturing Fundamentals (2)
Manufacturing fundamentals and production methods are studied. Modern fabrication techniques and equipment used in industry are presented. The functions and role of drafting are described. (2 Lec.)

(DFT) 182 Technician Drafting (2)
This course focuses on the reading and interpretation of engineering drawings. Topics include multiview drawings, pictorial drawings, dimensioning, measurement with scales, schematic diagrams, and printed circuit boards. Laboratory fee. (I Lec., 3 Lab.)

(DFT) 183 Basic Drafting (4)
This course is for students who have had little or no previous experience in drafting. Skill in orthographic, axonometric, and oblique sketching and drawing is developed. Topics include lettering, applied geometry, fasteners, sectioning, tolerancing, and auxiliaries. Experience is provided in using handbooks and other resource materials and in developing design skills. U.S.A.S.I., government, and industrial standards are used. Emphasis is on both mechanical skills and graphic theory. Laboratory fee. (2 Lec., 6 Lab.)

(DFT) 184 Advanced Mechanical Drafting (3)
Prerequisite: Drafting 183 or the equivalent. Equivalence is based on high school drafting courses or on student's work experience. Samples of drawings and/or a high school transcript must be presented. Drafting problems, design function, and specialized drafting areas are examined. Included are the detailing and assembling of machine parts, gears, cams, jigs, fixtures, metals, and metal forming processes. Drawing room standards and reproduction of drawings are studied. Detail and assembly drawings are made. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 185 Architectural Drafting (4)
This course begins with architectural lettering and drafting of construction details. Emphasis is on technique and use of appropriate material symbols and conventions. Working drawings are prepared, including plans, elevations, sections, and details. Drawings for buildings using steel, concrete, and timber structural components are covered. Reference materials are used to provide skills in locating data and in using handbooks. Laboratory fee. (2 Lec., 6 Lab.)

(DFT) 230 Structural Drafting (3)
Prerequisites: Drafting 184 and Mathematics 196. Stresses and thermal and elastic qualities of various materials are studied. Beams, columns, and other materials are included. Structural plans, details, and shop drawings of components are developed for buildings using steel, reinforced concrete, and timber structures. Emphasis is on drafting appropriate drawings for fabrication and erection of structural components. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 231 Electronic Drafting (3)
Prerequisite: Drafting 183. This course focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wiring diagrams, printed circuit boards, integrated circuits, component packaging, chassis design and current practices. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 232 Technical Illustration (3)
Prerequisite: Drafting 183. The rendering of three-dimensional drawings is covered. Orthographic views and engineers sketches are developed into isometric, dimetric, perspective, and diagramatic drawings of equipment and their environments. Technical sketching, hand mechanical lettering, air brush retouching of photographs, handling of commercially prepared pressure sensitive materials, and layout of schematics, charts, and graphs are practiced. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 234 Advanced Technical Illustration (4)
Prerequisite: Drafting 232. An area of specialization is chosen and pursued in depth. Examples are pictorials for color separation printing, air brush renderings, letterforms for logos and hand lettering, complex exploded views in isometric, perspective renderings, design of commercial displays and art for slide presentations. Laboratory fee. (2 Lec., 6 Lab.)

(DFT) 235 Building Equipment (Mechanical And Electrical) (3)
Prerequisite: Drafting 183 or Drafting 185. Plans and details for mechanical equipment are drawn. Equipment includes air conditioning, plumbing, and electrical systems. Emphasis is on the use of appropriate symbols and conventions. Mechanical and electrical features are coordinated with structural and architectural components. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 236 Pipe Drafting (3)
Prerequisites: Drafting 183 and Mathematics 195 or the equivalent. This course presents the methods of piping of fluids for refineries, petrochemical plants, and industrial facilities. ASME codes are applied to the design of pressure vessels, pipe fitting, welded and seamless piping, pumps,

and heat exchanges. Drawing techniques are emphasized in orthographic isometric projections. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 240 Printed Circuit Design (3)
Prerequisite: Drafting 231, concurrent enrollment in Drafting 231 or the equivalent. This course develops skills in the design of double-sided and multilayer printed circuit boards. Students design boards from schematics, parts lists, and manufacturing specifications. Some boards are designed for manual parts insertion and taped artworks. Others are designed for automatic parts insertion and digitized inputs for artworks. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 241 Integrated Circuit Design (3)
Prerequisites: Drafting 240, Electronics Technology 190 or the equivalent. Must be taken concurrently with Electronics Technology 250. This course develops skills in the design of integrated circuits. Electronic theory and laboratory exercises in active devices are combined with drafting lectures and laboratory drafting to enable students to design simple integrated circuits from schematic diagrams and given design rules. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 242 Advanced Integrated Circuit Design (3)
Prerequisite: Drafting 241. This course develops skills in the design of complex integrated circuits. Students work from schematic diagrams and two sets of given rules. Work is done to meet industrial standards of current technologies. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 243 Advanced Printed Circuit Design (3)
Prerequisite: Drafting 240. This course includes the design of double-sided, multi-layer, surface-mounted, and flex-cable printed circuit boards. Students select various types of integrated circuit chips while applying pen swapping and gate combination techniques. Industry standards are followed in design development. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 245 Computer Aided Design (3)
Prerequisite: Drafting 183 or the equivalent. Capabilities and limitations of the electronic computer as an aid to the designer are studied. Drafting procedures using an interactive system with computer graphics are practiced. Forms and uses of computer aided products are viewed in perspective with the overall design process. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 246 Advanced CAD-Electronic (3)
Prerequisites: Drafting 231 and Drafting 245 or the equivalent. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to printed circuit board or integrated circuit design. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 247 Applied Printed Circuit Design (3)
Prerequisite: Drafting 240. Special applications of printed circuit design techniques and principles in particular systems of design are studied. Specialization may be focused by classification of the electronic circuits, of resources for design, and of processes for manufacture of the printed circuits. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 248 Advanced CAD-Mechanical (3)
Prerequisites: Drafting 184 and Drafting 245 or the equivalent. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to three-dimensional design, specifically mechanical. Menu and library construction will be practiced while using the interactive graphic systems. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 249 Advanced CAD-Architectural (3)
Prerequisites: Drafting 185 and 245 or the equivalent. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to architectural drafting as it relates to the single-family residence. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 250 Sheet Metal Design (3)
Prerequisite: Drafting 183. This course includes the preparation of drawings for sheet metal developments. Topics include bend allowance, relief, standard bends for specific applications, cost factors to consider in manufacturing, metal specifications, finishing, coating, fasteners, and weldments. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 251 Industrial Design (3)
Prerequisite: Drafting 250. This course includes the design of metal and plastic packages for electronic, optical, and mechanical components. Topics include standard boxes, panels, mounts, brackets, fasteners, grommets, and other standard parts used in the design of packages. Standard catalogs and manuals are used to design packages for specific situations. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 255 Selected Topics in Drafting (3)
Prerequisite: Demonstrated competence as approved by the instructor. Special topics in advanced drafting are covered. Topics will be those with current industry applications and may be individualized for each student. Laboratory fee. (2 Lec., 4 Lab.)

(DFT) 703, 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(DFT) 704, 714, 804, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

EARTH SCIENCE

(ES) 117 Earth Science (4)
This course is for the non-science major. It covers the interaction of the earth sciences and the physical world. Geology, astronomy, meteorology, and space science are included. Selected principles and concepts of the applied sciences are explored. Laboratory fee. (This course is offered on campus and may be offered via television.) (3 Lec., 3 Lab.)

ECOLOGY

(ECY) 291 People And Their Environment II (3)
Environmental awareness and knowledge are emphasized. Topics include pollution, erosion, land use, energy resource depletion, overpopulation, and the effects of unguided technological development. Proper planning of societal and individual action in order to protect the natural environment is stressed. (This course may be offered via television.) (3 Lec.)

ECONOMICS

(ECO) 201 Principles of Economics I (3)
Sophomore standing is recommended. The principles of macroeconomics are presented. Topics include economic organization, national income determination, money and banking, monetary and fiscal policy, macroeconomic applications of international trade and finance, economic fluctuations, and growth. (This course is offered on campus and may be offered via television.) (3 Lec.)

(ECO) 202 Principles of Economics II (3)
Prerequisite: Economics 201 or demonstrated competence approved by the instructor. The principles of microeconomics are presented. Topics include the theory of demand, supply, and price of factors. Income distribution and theory of the firm are also included. Emphasis is given to microeconomic applications of international trade and finance as well as other contemporary microeconomic problems. (3 Lec.)

ELECTRONICS TECHNOLOGY

(ET) 135 DC-AC Theory And Circuit Analysis (6)
Prerequisites: Credit or concurrent enrollment in Mathematics 195 or the equivalent. This is an accelerated course combining DC circuits (ET 190) and AC circuits (ET 191) in one semester for students with previous electronics experience or a good mathematics background. Topics include the analysis of resistive, capacitive, inductive, and combination circuits. Magnetism, resonance, schematic symbols, and sine wave analysis are also included. Series, parallel, and series-parallel circuits are covered. Laboratory fee. (5 Lec., 3 Lab.)

(ET) 170 Printed Circuit Board Manufacturing (1)
The student will build a working printed circuit board. The course will begin with a schematic and parts list and progress through all steps necessary to produce a single sided photographically produced board. Laboratory fee. (1 Lec., 1 Lab.)

(ET) 172 Soldering (1)
This course is intended to ensure that the student understands the theory and use of tools and equipment for proper industrial soldering techniques. The prime emphasis is to build the student's skill in soldering. Laboratory fee. (1 Lec., 1 Lab.)

(ET) 174 Oscilloscope Utilization (1)
This course will cover all front panel controls on basic laboratory calibrated oscilloscopes. Emphasis will be placed on utilizaton of oscilloscope in troubleshooting a circuit. Laboratory fee. (1 Lec., 1 Lab.)

(ET) 190 DC Circuits and Electrical Measurements (4)
The mathematical theory of direct current circuits is presented in combination with laboratory fundamentals. Emphasis is on elementary principles of magnetism, electric concepts and units, diagrams, and resistance. Electromagnetism, series and parallel circuits, simple meter circuits, conductors, and insulators are also stressed. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 191 A.C. Circuits (4)
Prerequisite: Electronics Technology 190 and credit or concurrent enrollment in Mathematics 195 or the equivalent. This course covers the fundamental theories of alternating current. The theories are applied in various circuits. Included are laboratory experiments on power factor, sine wave analysis, resonant circuits, capacitance, inductance, Q of coils, magnetism, and resistance. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 192 Digital Computer Principles (3)
Prerequisite: Electronics Technology 190. This course is a study of number systems and arithmetic in various bases. Included are truth tables, relay and diode logic analysis, logic symbols, and basic functions include NOT, AND, NAND, OR NOR, and EX OR. Logic manipulations include basic laws, minterm, maxterm, sum of products, and product of sums expression forms. Venn diagrams, Veitch and Karnaugh reduction techniques, and circuit synthesis are also covered using design examples. Laboratory fee. (2 Lec., 2 Lab.)

(ET) 193 Active Devices (4)
Prerequisites: Electronics Technology 190 and credit or concurrent enrollment in Electronics Technology 191. Semiconductors (active devices) are the focus of this course. Topics include composition, parameters, linear and nonlinear characteristics, in-circuit action, amplifiers, rectifiers, and switching. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 194 Instrumentation (3)
Prerequisites: Electronics Technology 190 and credit or concurrent enrollment in Electronics Technology 191 and 193. Electrical devices for measurement and instrumentation are studied and applied to work situations. Included are basic AC and DC measurement meters, impedance bridges, oscilloscopes, signal generators, signal-tracers, and tube and transistor testers. The course concludes with a study of audio frequency test methods and equipment. Laboratory fee. (2 Lec., 3 Lab.)

(ET) 200 Special Applications Of Electronics (4)
This course is intended for use by any given group of students that desire specific topics to be covered. This course may substitute for any 200 level electronics course with the demonstrated competence approved by the instructor. This course is repeatable for credit as topics vary. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 238 Linear Integrated Circuits (4)
Prerequisites: Electronics Technology 190, 191, and 193. Differential amplifiers, operational amplifiers, and integrated circuit timers are investigated. Topics include comparators, detectors, inverting and non-inverting amplifiers, OP AMP adders, differentiating and integrating amplifiers, and instrumentation amplifiers. Digital to analog converters, analog to digital converters, special OP AMP applications, and integrated circuits timers are also included. Limitations and specifications of integrated circuits are covered. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 239 Microwave Technology (3)
Prerequisites: Electronics Technology 194 and Electronics Technology 231. Microwave concepts such as propagation, transmission lines including waveguides, standing waves, impedance matching, basic antennas and various basic microwave measurements are covered. Microwave measurement techniques such as power and frequency meter measurements and calibration, VSWR determinations, klystron characteristics, and waveguide tuning will be demonstrated. A basic radar system is discussed as time permits. (3 Lec.)

(ET) 250 Principles of Electronic Integrated Circuits (4)
Prerequisites: Electronics Technology 190 and concurrent enrollment in Drafting 241. This is a survey course of solid state devices and their associated circuitry. This course is intended to teach the student fundamentals of common electronic circuits which contain integrated circuits and to teach elements of solid state devices from the principle of the PN junction through the function of integrated circuits. Laboratory fee. (3 Lec., 2 Lab.)

(ET) 260 Sinusoidal Circuits (4)
Prerequisites: Electronics Technology 191 and 193. Power supply circuits are presented. Included are full wave rectification, filtering, and regulation. Amplifier circuits involving large and small signal analysis, coupling, classes of operation and feedback techniques are also covered. Semiconductor devices considered include the Zener diode, SCR, TRIAC, MOSFET, JFET, CMOS, and unijunction transistors. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 261 Pulse And Switching Circuits (4)
Prerequisites: Electronics Technology 191 and 193. Thevenin's theorem and superposition are applied to AC and DC sources. Waveform analysis is studied including pulse characteristics and pulsetrain measurements of harmonic content. Other topics include RC and RL circuit response to step inputs, exponential forms, diode clipper and clamp circuits, and transistor action in digital circuits involving saturation and cutoff. Gate types of RTL, DTL, TTL, ECL, and MOS technologies are also included. The bistable, monostable, and astable types of multivibrator circuits are covered. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 263 Digital Computer Theory (4)
Prerequisite: Electronics Technology 192. This course focuses on basic computer circuits. Included are flip-flops, shift registers, counters (sequential and nonsequential), operational amplifiers, and A to D converters. Analysis of specific current integrated circuits is also included. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 264 Digital Systems (4)
Prerequisite: Electronics Technology 192 and 263 or concurrent enrollment in Electronics Technology 263. The three major component systems of a digital computer are studied. The arithmetic-logic section covers arithmetic in binary, hexadecimal, counting, and number representation within a machine. The memory studies center around the operation of core and semiconductor memory assemblies which include addressing and data buffering. The control section deals with state, distributive, and ROM type of control circuits. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 265 Digital Research (3)
Prerequisites: Electronics Technology 192 and concurrent enrollment in Electronics Technology 263 and 264. The design, layout, construction, and calibrating of a major electronic project are covered. The project uses digital circuits. Students develop independent projects and prepare term papers on functions of components, operating specifications, and schematics. Laboratory fee.
(1 Lec., 5 Lab.)

(ET) 266 Computer Applications (4)
Prerequisite: Electronics Technology 192. Machine language and assembly language programming are the focus of this course. Emphasis is on problem solving for in-house computers. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 267 Microprocessors (4)
Prerequisite: Electronics Technology 192 and 266. This course is a study of microcomputers. Topics include architecture, software, interfacing, microprocessors, and microcomputer systems. Emphasis is on practical applications using in-house microcomputers. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 268 Microprocessor Troubleshooting and Interface (4)
Prerequisite: Electronic Technology 267. This course studies troubleshooting techniques on microprocessor, disk controls, CRT controls and interfaces. Emphasis is on hardware troubleshooting and peripheral interface. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 703, 713, 803 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(ET) 704, 804 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

ELECTRONIC TELECOMMUNICATIONS

(ET) 101 Introduction to Telecommunications (4)
This course is an introduction to the fundamentals of telecommunications, with an emphasis on analog and digital

voice transmission techniques and technology. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 290 Advanced Electronic Devices (4)
Prerequisite: Electronics Technology 193 and 101. This course continues the study of solid state devices and circuit theory. Emphasis will be on application of these devices in circuitry relevant to the telecommunications systems: power supplies, regulators, amplifiers and oscillators. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 291 Linear Integrated Circuit Applications (4)
Prerequisite: Electronics Technology 290 or concurrent enrollment in Electronics Technology 290. A study of operational amplifiers and their use as basic building blocks of linear integrated circuitry. Topics will include voltage level detectors, comparators, signal generating circuits, signal processing circuits, inverting and non-inverting amplifiers, differential, instrumentation and bridge amplifiers, active filters, I.C. timers, and selected linear integrated circuits. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 292 Telephony Switching Systems (4)
Prerequisites: Electronics Technology 290 or concurrent enrollment in Electronics Technology 290. This course will familiarize the student with the following topics: telephone set, public switched networks, local exchanges, networks, two and four wire systems, tip and ringing requirements, and an introduction to digital transmission techniques. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 293 Basic Radio Circuitry (4)
Prerequisites: Electronics Technology 290 or concurrent enrollment in Electronics Technology 290. This course covers the theory and practices of modern communications systems. Topics include amplitude modulation, frequency modulation, single sideband techniques and digital radio characteristics. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 294 High Frequency Transmission Systems (4)
Prerequisites: Electronics Technology 291, 292, and 293. The theory and application of longhaul transmission techniques utilized in the telecommunication industry will be covered. Microwave transmission, fiberoptics principles and satellite communication are major areas of emphasis. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 295 Telecommunication Signaling (4)
Prerequisite: Electronics Technology 294 or concurrent enrollment in Electronics Technology 294. This course covers circuit and system application necessary to implement signaling protocols, conversion systems, formats, and loop starts. Specific signaling topics are SF (single frequency) E & M, DX (duplex), and looping systems. Laboratory fee. (3 Lec., 3 Lab.)

(ET) 296 System Installation and Testing (6)
Prerequisites: Electronics Technology 295 or concurrent enrollment in Electronics Technology 295. This course is designed to familiarize the student with the installation of telecommunication switching equipment. Switching equipment theory, operation, maintenance, and troubleshooting techniques will be covered. Laboratory fee. (5 Lec., 2 Lab.)

ENGINEERING

(EGR) 101 Engineering Analysis (2)
Prerequisite: Two years of high school algebra or Developmental Mathematics 093 or demonstrated competence approved by the instructor. A mathematical scheme of analysis appropriate in engineering design is presented. Topics include natural quantities, vectors, Newton's laws, work, energy, first law of thermodynamics, information, dimensional analysis, physical modeling, compatibility, continuity, and interpretation of analytic results. Computer programming is taught and used in processing information for analysis. (2 Lec.)

(EGR) 105 Engineering Design Graphics (3)
Graphic fundamentals are presented for engineering communications and engineering design. A rational engineering design procedure is taught and computer aided design is introduced. Graphical topics include geometric construction, geometric modeling, orthographic drawing system, auxiliaries, sections, dimensions and tolerances, graphical analysis, pictorial and working drawings. Laboratory Fee. (2 Lec., 4 Lab.)

(EGR) 106 Descriptive Geometry (3)
Prerequisite: Drafting 183 or Engineering 105. This course provides training in the visualization of three dimensational structures. Emphasis is on accurately representing these structures in drawings by analyzing the true relationship between points, lines, and planes. Included are the generation and classification of lines, surfaces, intersections, developments, auxiliaries, and revolutions. Laboratory fee. (2 Lec., 4 Lab.)

(EGR) 107 Engineering Mechanics I (3)
Prerequisite: Credit or concurrent enrollment in Mathematics 124. This course is a study of the statics of particles and rigid bodies with vector mathematics in three dimensional space. Topics include the equilibrium of forces and force systems, resultants, free body diagrams, friction, centroids and moments of inertia, virtual works, and potential energy. Distributed forces, centers of gravity, and analysis of structures, beams, and cables are also presented. (3 Lec.)

(EGR) 108 Computer Methods In Engineering (3)
Prerequisite: Credit or concurrent enrollment in Mathematics 124. Fundamental methods of numerical analysis with applications by computer programming are presented. Topics include computer programming, recursion formulas, successive approximations, error analysis, nonlinear equations, and systems of linear equations and matrix methods. Probabilistic models, interpolation, determination of parameters, numerical integration, and solution of ordinary differential equations are also covered. (3 Lec.)

(EGR) 186 Manufacturing Processes (2)
This course introduces the student enrolled in technical programs to the many steps involved in manufacturing a product. This is accomplished by involving the class in producing a device with precision. The student gains practical experience with working drawings, a variety of

machine tools and the assembly of components. The student is made aware of the factors involved in selecting materials and economical utilization of materials. Laboratory fee. (I Lec., 2 Lab.)

(EGR) 187 Manufacturing Processes (2)
Prerequisite: Engineering 186. This course is a continuing study of the metal-working processes with emphasis on automation, programming and operation of CNC machines. Laboratory fee. (1 Lec., 2 Lab.)

(EGR) 201 Engineering Mechanics II (3)
Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 225. This is a study of dynamics. Particles and rigid bodies are examined as they interact with applied forces. Both constrained and general motions are included. Space, time, mass, velocity, acceleration, work and energy, impulse, and momentum are covered. (3 Lec.)

(EGR) 202 Engineering Mechanics Of Materials (3)
Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 225. Simple structural elements are studied. Emphasis is on forces, deformation, and material properties. The concepts of stress, strain, and elastic properties are presented. Analysis of thin walled vessels, members loaded in tension, torsion, bending and shear, combined loadings, and stability conditions are included. Behavioral phenomena such as fracture, fatigue, and creep are introduced. (3 Lec.)

(EGR) 204 Electrical Systems Analysis (3)
Prerequisite: Credit or concurrent enrollment in Mathematics 225. Electrical science is introduced. Included are fundamental electrical systems and signals. Basic concepts of electricity and magnetism with mathematical representation and computation are also covered. (3 Lec.)

(EGR) 205 Plane Surveying (3)
Prerequisites: Mathematics 102 or 196 and Engineering 105 or Drafting 183. This course focuses on plane surveying. Topics include surveying instruments , basic measuring procedures, vertical and horizontal control, error analysis, and computations. Traverse, triangulation, route alignments, centerlines, profiles, mapping, route surveying, and land surveying are also included. Laboratory fee. (2 Lec., 4 Lab.)

(EGR) 206 Electrical Engineering Laboratory (1)
Prerequisite: Credit or concurrent enrollment in Engineering 204. Various instruments are studied and used. These include the cathode ray oscilloscope, ammeters, voltmeters, ohmmeters, power supplies, signal generators, and bridges. Basic network laws, steady state and transient responses, and diode characteristics and applications are demonstrated. Computer simulation is introduced. Laboratory fee. (3 Lab.)

(EGR) 289 Mechanics of Structures (3)
Prerequisite: Mathematics 195. This is a basic course in engineering mechanics for technology students. Topics include force systems, equilibrium, moments, centroids, stresses and strains. Methods analysis and design of bolted and welded joints, trusses, beams, and columns are introduced. (3 Lec.)

ENGLISH

English
(Also see Developmental Reading and Developmental Writing.) Additional instruction in writing and reading is available through the Learning Skills Center.

(ENG) 101 Composition I (3)
Prerequisite: An appropriate assessment test score (ACT, DCCCD test, or SAT). This course focuses on student writing. It emphasizes reading and analytical thinking and introduces research skills. Students practice writing for a variety of audiences and purposes. (This course is offered on campus and may be offered via television.) (3 Lec.)

(ENG) 102 Composition II (3)
Prerequisite: English 101. In this course students refine the writing, research, and reading skills introduced in English 101. A related goal is the development of critical thinking skills. Writing assignments emphasize argumentation and persuasion. Students will also write a formal research paper. (This course is offered on campus and may be offered via television.) (3 Lec.)

English In The Sophomore Year
English 201, 202, 203, 204, 205, 206, 215 and 216 are independent units of three credit hours each, from which any combination of two will be selected to satisfy degree requirements in sophomore English.

(ENG) 201 British Literature (3)
Prerequisite: English 102. This course includes significant works of British writers from the Old English Period through the 18th century. (3 Lec.)

(ENG) 202 British Literature (3)
Prerequisite: English 102. This course includes significant works of British writers from the Romantic Period to the present. (3 Lec.)

(ENG) 203 World Literature (3)
Prerequisite: English 102. This course includes significant works of Continental Europe and may include works from other cultures. It covers the Ancient World through the Renaissance (3 Lec.)

(ENG) 204 World Literature (3)
Prerequisite: English 102. This course includes significant works of Continental Europe and may include selected works of other cultures from the Renaissance to the present. (3 Lec.)

(ENG) 205 American Literature (3)
Prerequisite: English 102. This course includes significant works of American writers from the Colonial through the Romantic Period. (3 Lec.)

(ENG) 206 American Literature (3)
Prerequisite: English 102. This course includes significant works of American writers from the Realistic Period to the present. (3 Lec.)

(ENG) 209 Creative Writing (3)
Prerequisite: English 102. The writing of fiction is the focus of this course. Included are the short story, poetry, and short drama. (3 Lec.)

(ENG) 210 Technical Writing (3)
Prerequisite: English 101 and English 102. The technical style of writing is introduced. Emphasis is on the writing of technical papers, reports, proposals, progress reports, and descriptions. (3 Lec.)

(ENG) 215 Studies in Literature (3)
Prerequisite: English 102. This course includes selections in literature organized by genre, period, or geographical region: Course descriptions are available each semester prior to registration. This course may be repeated for credit. (3 Lec.)

(ENG) 216 Studies in Literature (3)
Prerequisite: English 102. This course includes selections in literature organized by theme, interdisciplinary content or major author. Course titles and descriptions are available each semester prior to registration. This course may be repeated for credit. (3 Lec.)

ENGLISH-AS-A-SECOND LANGUAGE

The English-as-a-Second Language (ESL) credit curriculum is designed to develop students' language proficiency in the areas of listening, speaking, reading, and writing. The plan of study consists of thirteen courses divided into three tracks and four levels (Listening-Conversation, Reading, and Writing). The student enters the program by taking the Michigan Test of English Language Proficiency (MTELP). (The Michigan Test of Aural Comprehension, the MTAC, is used *optionally* on each campus.) The credit ESL curriculum is designed to interface both with Continuing Education ESL programs and with Developmental Studies programs on each campus.

ESL 031-034 (Listening-Conversation)
These courses prepare students to communicate orally in English. They can (but do not necessarily) precede the Reading (ESL 041-044) and Writing (ESL 051-054, ESL 063) courses.

ESL 041-044 (Reading)
These courses prepare a student for reading English in daily life and for reading college textbooks. All four ESL-Reading (ESL 041-044) courses precede the Developmental Reading courses in level of difficulty. Therefore, ESL students needing additional academic preparation should enroll for regular Developmental Reading courses upon completion of the ESL-Reading courses.

ESL 051-054/ESL 063 (Writing-Grammar)
These courses are designed to prepare a student for English 101. The courses involve three courses in syntax (grammar) development (ESL 051, ESL 052, ESL 063) and two courses in principles of composition (ESL 053 and ESL 054). Following these courses, each ESL student will be given the District Assessment Battery to determine readiness for English 101, Developmental Writing, or a combination of both, based on the test scores.

INGLES-COMO-SEGUNDO-IDIOMA

El programa de crédito de *Inglés-Como-Segundo-Idioma* (ESL) está diseñado para proporcionar al estudiante la abilidad de ser proficiente en el desarrollo del idioma inglés en las areas de escuchar, conversar, leer, y escribir. El plan de estudio consiste de trece cursos divididos en tres secciones y cuatro niveles: escuchar-conversar, leer, y escribir. El programa de ESL se entrelaza con los programas de Educación Continua (Continuing Education) y los de Estudios de Preparación (Developmental Studies).

ESL 031-034 (Escuchar y Conversar)
Estos cursos preparan al estudiante a comunicarse oralm ente en inglés. Pueden (pero no necesariamente) preceder la clase de Lectura (ESL 041-044) y Escritura (ESL 051-054, ESL 063).

ESL 041-044 (Lectura)
Estos cursos preparan al estudiante en la lectura del inglés en la vida diaria y a leer libros de texto al nivel colegial. Los cuatro cursos de Lectura (ESL 041-044) preceden los cursos Preparatorios de Lectura (Developmental Reading) en los diferentes grados de dificultad. Por lo tanto los estudiantes que necesiten preparación académica adicional se les recomienda matricularse en cursos regulares de Preparación de la Lectura (Developmental Reading) cuando terminen los cursos de Lectura de ESL (ESL-Reading).

ESL 051-054/ESL 063 (Escritura-Gramatica)
Estos cursos están diseñados para preparar al estudiante para pasar a la clase de Inglés 101 (English 101). Estas clases tienen tres cursos de desarrollo en la sintaxis (ESL 051, ESL 052, ESL 063) y dos cursos en Principios de la Composición (ESL 053 y ESL 054). Terminando estas clases, el estudiante tomará una evalución, para determinar si está preparado Para la clase de Inglés 101 (English 101), Desarrollo de la Escritura (Developmental Writing) o una combinación de ambas, basado en los resultados de la evaluación.

(ESL) 031 ESL Conversation — Listening (3)
This course is designed to develop academic and social skills needed to speak and understand English more effectively in school, in the market place, and in social situations. (3 Lec.)

(ESL) 032 ESL Conversation—Listening (3)
This course strengthens competencies initiated in ESL 031. Special emphasis is placed on academic listening and speaking skills. (3 Lec.)

(ESL) 033 ESL Conversation—Listening (3)
This course is designed to improve formal and informal conversation skills including listening comprehension, note-taking, oral reporting, and class discussion techniques. (3 Lec.)

(ESL) 034 ESL Conversation—Listening (3)
This course develops academic, professional, and social aural/oral skills. Emphasis is placed on analysis and critical thinking in English. (3 Lec.)

(ESL) 041 ESL Reading (3)
This course focuses on language development through reading activities. It includes reading comprehension, vocabulary, and word recognition. (3 Lec.)

(ESL) 042 ESL Reading (3)
This course is designed for students needing more practice in the skills and information introduced in ESL 041. Topics include reading comprehension, vocabulary development, word recognition, language and culture. (3 Lec.)

(ESL) 043 ESL Reading (3)
This course covers pre-reading strategy, specific reading comprehension skills, critical reading skills, vocabulary development, idioms, and use of the dictionary and library. (3 Lec.)

(ESL) 044 ESL Reading (3)
This course is designed for students needing more practice in the skills and information introduced in ESL 043. Topics include pre-reading strategies, specific reading comprehension skills, critical reading skills, vocabulary development, idioms, and use of the dictionary and library. (3 Lec.)

(ESL) 051 ESL Writing — Grammar (3)
This course emphasizes correct formation of basic sentences with particular attention to specific grammatical points. These basic sentence structures will also be reinforced in writing exercises. (3 Lec.)

(ESL) 052 ESL Writing—Grammar (3)
This course strengthens English grammar skills introduced in ESL 051. Students will learn to produce compound and complex sentence structures. (3 Lec.)

(ESL) 053 ESL Writing—Grammar (3)
Prerequisite: Concurrent enrollment in ESL 063 is recommended. This course introduces principles of composition and emphasizes the processes of paragraph formation. (3 Lec.)

(ESL) 054 ESL Writing — Grammar (3)
This course emphasizes improving skills in expository writing. Particular attention is given to improving unity, coherence, transition, and style as students progress to multi-paragraph compositions. (3 Lec.)

(ESL) 063 ESL Writing — Grammar (3)
Prerequisite: Concurrent enrollment in ESL 053 is recommended. This course includes an intensive grammar review of major points covered in ESL 051 and ESL 052 as well as an exploration of the more complex points of English grammar. (3 Lec.)

FRENCH

(FR) 101 Beginning French (4)
The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)

(FR) 102 Beginning French (4)
Prerequisite: French 101 or the equivalent. This course is a continuation of French 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. (3 Lec., 2 Lab.)

(FR) 201 Intermediate French (3)
Prerequisite: French 102 or the equivalent. Reading, composition, and intense oral practice are covered in this course. Grammar is reviewed. (3 Lec.)

(FR) 202 Intermediate French (3)
Prerequisite: French 201 or the equivalent. This course is a continuation of French 201. Contemporary literature and composition are studied. (3 Lec.)

GEOGRAPHY

(GPY) 101 Physical Geography (3)
The physical composition of the earth is surveyed. Topics include weather, climate, topography, plant and animal life, land, and the sea. Emphasis is on the earth in space, use of maps and charts, and place geography. (3 Lec.)

(GPY) 102 Economic Geography (3)
The relation of humans to their environment is studied. Included is the use of natural resources. Problems of production, manufacturing, and distributing goods are explored. Primitive subsistence and commercialism are considered. (3 Lec.)

(GPY) 103 Cultural Geography (3)
This course focuses on the development of regional variations of culture. Topics include the distribution of races, religions, and languages. Aspects of material culture are also included. Emphasis is on origins and diffusion. (3 Lec.)

GEOLOGY

(GEO) 101 Physical Geology (4)
This course is for science and non-science majors. It is a study of earth materials and processes. Included is an

introduction to geochemistry, geophysics, the earth's interior, and magnetism. The earth's setting in space, minerals, rocks, structures, and geologic processes are also included. Laboratory fee. (3 Lec., 3 Lab.)

(GEO) 102 Historical Geology (4)
This course is for science and non-science majors. It is a study of earth materials and processes within a developmental time perspective. Fossils, geologic maps, and field studies are used to interpret geologic history. Laboratory fee. (3 Lec., 3 Lab.)

(GEO) 103 Introduction to Oceanography (3)
The physical and chemical characteristics of ocean water, its circulation, relationship with the atmosphere, and the effect on the adjacent land are investigated. The geological development of the ocean basins and the sediment in them is also considered. Laboratory fee. (2 Lec., 2 Lab.)

(GEO) 201 Introduction To Rocks And Mineral Identification (4)
Prerequisites: Geology 101 and 102. This course introduces crystallography, geochemistry, descriptive mineralogy, petrology, and phase equilibria. Crystal models and hand specimens are studied as an aid to rock and mineral identification. This course is not intended for geology majors. Laboratory fee. (3 Lec., 3 Lab.)

(GEO) 205 Field Geology (4)
Prerequisites: Eight credit hours of geology or demonstrated competence approved by the instructor. Geological features, landforms, minerals, and fossils are surveyed. Map reading and interpretation are also included. Emphasis is on the identification, classification and collection of specimens in the field. This course may be repeated for credit. (3 Lec., 3 Lab.)

(GEO) 207 Geologic Field Methods (4)
Prerequisites: Geology 101 and 102. This course covers basic geologic and topographic mapping, observation of geologic structures and examination of petrologic systems in an actual field setting. Students will spend a major portion of the course collecting data for and constructing topographic and geologic maps and geologic cross sections and columns. (3 Lec., 3 Lab.)

(GEO) 209 Mineralogy (4)
Prerequisites: Geology 101 and 102 and Chemistry 102. This course covers basic geochemistry; crystal chemistry; crystallography, including symmetry elements, stereographic and gnomonic projections, Miller indices, crystal systems and forms; X-ray diffraction; optical properties of minerals; descriptive mineralogy including identification of hand specimens; phase equilibria. Laboratory fee. (3 Lec., 3 Lab.)

GOVERNMENT

(GVT) 201 American Government (3)
Prerequisite: Sophomore standing recommended. This course is an introduction to the study of political science. Topics include the origin and development of constitutional democracy (United States and Texas), federalism and intergovernmental relations, local governmental relations, local government, parties, politics, and political behavior. (This course is offered on campus and may be offered via television.) (3 Lec.)

(GVT) 202 American Government (3)
Prerequisite: Sophomore standing recommended. The three branches of the United States and Texas government are studied. Topics include the legislative process, the executive and bureaucratic structure, the judicial process, civil rights and liberties, and domestic policies. Other topics include foreign relations and national defense. (This course is offered on campus and may be offered via television.) (3 Lec.)

(GVT) 211 Introduction to Comparative Politics (3)
A comparative examination of governments, politics, problems and policies with illustrative cases drawn from a variety of political systems.

GRAPHIC ARTS

(GA) 120 Printing Fundamentals (3)
This course is a study of basic mathematics used in the printing industry. It includes proportional copy, enlargement and reduction, percentages, copy fitting, and conversion of inches into points and picas. Paper calculations for cutting and buying procedures are discussed. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 134 Basic Camera Operations (3)
Prerequisite: Graphic Arts 120. This course introduces the student to the Graphic Arts darkroom and photolithographic process camera. Operation of horizontal and vertical cameras are taught. Lab assignments include PMT's line and halftone photography, contacting and an introduction to process color. Stripping and platemaking procedures are also included. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 136 Beginning Copy Preparation (3)
Prerequisite: Graphic Arts 120. This course teaches the basic fundamentals of paste-up procedures. The student is introduced to design principles and balance. Lab assignments include proportions and paste-up of stationery, reply cards, and advertising posters. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 140 Beginning Offset Printing (3)
Prerequisite: Graphic Arts 120. This course covers principles, problems and techniques of the operation of an offset press. Students learn how to use different plate materials to print simple line work. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 142 Basic Typesetting (3)
Prerequisite: Office Careers 172 or demonstrated competence approved by the instructor. This course is an introduction to photo-composition. It is a study of text, headline and display type. Students will learn fundamentals of typesetting by setting cards, brochures, invitations, body copy and simple charts. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 206 Graphic Projects (3)
Prerequisite: Concurrent enrollment or 16 hours of credit in Graphic Arts. This course provides problem analysis and

project development. It gives the student the opportunity of producing a complete printed product. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 225 Special Topics (3)
This course is intended for use by any given group of students that desire specific topics to be covered. This course may substitute for any 200 level Graphic Arts course with the demonstrated competence approved by the instructor. This course is repeatable for credit as topics vary. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 234 Intermediate Camera Operations (3)
Prerequisite: Graphic Arts 134. Students gain expertise in working with problem line and halftone copy. Contacting and the use of filters are more fully discussed. Laboratory assignments include duotones, color keys, proofs, advanced stripping and platemaking techniques. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 236 Advanced Copy Preparation (3)
Prerequisite: Graphic Arts 136. This course builds upon the skills developed in beginning copy preparation. Emphasis is on precision ruling, masking, scribing, design and proportions. Principles of advertising and marketing are discussed. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 240 Advanced Offset Printing (3)
Prerequisite: Graphic Arts 140. This course covers halftones, 2-color and advanced line work for quality printing. Minor press maintenance and care, with discussions of paper, pricing and estimating procedures are covered. Troubleshooting for the small offset press is included. Laboratory fee. (2 Lec., 4 Lab.)

(GA) 242 Intermediate Typesetting (3)
Prerequisite: Graphic Arts 142. Advanced typesetting skills are acquired through business forms, graphs, newsletters, advertisements, etc. Proofreading and markup of copy for designated layouts will increase typesetting skills. Formatting and advanced codes will be included. Laboratory fee. (2 Lec. 4 Lab.)

(GA) 714, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

HISTORY

(HST) 101 History Of The United States (3)
The history of the United States is presented, beginning with the European background and first discoveries. The pattern of exploration, settlement, and development of institutions is followed throughout the colonial period and the early national experience to 1877. (This course is offered on campus and may be offered via television.) (3 Lec.)

(HST) 102 History Of The United States (3)
The history of the United States is surveyed from the Reconstruction era to the present day.The study includes social, economic, and political aspects of American life. The development of the United States as a world power is followed. (This course is offered on campus and may be offered via television.) (3 Lec.)

(HST) 105 Western Civilization (3)
The civilization in the West from ancient time through the Enlightenment is surveyed. Topics include the Mediterranean world, including Greece and Rome, the Middle Ages, and the beginnings of modern history. Particular emphasis is on the Renaissance, Reformation, the rise of the national state, the development of parliamentary government, and the influences of European colonization. (3 Lec.)

(HST) 106 Western Civilization (3)
This course is a continuation of History 105. It follows the development of civilization from the Enlightenment to current times. Topics include the Age of Revolution, the beginning of industrialism, 19th century, and the social, economic, and political factors of recent world history. (3 Lec.)

(HST) 110 The Heritage of Mexico (3)
This course (cross-listed as Anthropology 110) is taught in two parts each semester. The first part of the course deals with the archaeology of Mexico beginning with the first humans to enter the North American continent and culminating with the arrival of the Spanish in 1519 A.D. Emphasis is on archaic cultures, the Maya, the Toltec, and the Aztec empires. The second part of the course deals with Mexican history and modern relations between the United States and Mexico. The student may register for eithter History 110 or Anthropology 110, but may receive credit for only one of the two. (3 Lec.)

(HST) 112 Latin American History (3)
This course presents developments and personalities which have influenced Latin American history. Topics include Indian cultures, the Conquistadors, Spanish administration, the wars of independence, and relations with the United States. A brief survey of contemporary problems concludes the course. (3 Lec.)

(HST) 120 Afro-American History (3)
The role of the Black in American history is studied. The slave trade and slavery in the United States are reviewed. Contributions of black Americans in the U.S. are described. Emphasis is on the political, economic, and sociological factors of the 20th century. (3 Lec.)

(HST) 204 American Minorities (3)
Prerequisites: Sociology 101 or 6 hours of U.S. history recommended. Students may register for either History 204 or Sociology 204 but may receive credit for only one of the two. The principal minority groups in American society are the focus of this course. The sociological significance and historic contributions of the groups are presented. Emphasis is on current problems of intergroup relations, social movements, and related social changes. (3 Lec.)

(HST) 205 Studies In U.S. History (3)
Prerequisite: Sophomore standing and 6 hours of American history. Selected topics in the history of the United States are presented. The course may be repeated once for credit when different topics are presented. (3 Lec.)

HUMAN DEVELOPMENT

(HD) 100 Educational Alternatives (1)
The learning environment is introduced. Career, personal study skills, educational planning, and skills for living are all included. Emphasis is on exploring career and educational alternatives and learning a systematic approach to decision-making. A wide range of learning alternatives is covered, and opportunity is provided to participate in personal skills seminars. This course may be repeated for credit. (1 Lec.)

(HD) 104 Educational And Career Planning (3)
This course is designed to teach students the on-going process of decision making as it relates to career/life and educational planning. Students identify the unique aspects of themselves (interests, skills, values). They investigate possible work environments and develop a plan for personal satisfaction. Job search and survival skills are also considered. (3 Lec.)

(HD) 105 Basic Processes of Interpersonal Relationships (3)
This course is designed to help the student develop a self-awareness that will enable him/her to relate more effectively to others. Students are made aware of their feelings, values, attitudes, verbal and non-verbal behaviors. The course content, which utilizes an experiential model, also focuses on developing communication and problem-solving skills. (3 Lec.)

(HD) 106 Personal and Social Growth (3)
This course focuses on the interactions between the individual and the social structures in which he lives. Roles, social influences and personal adjustments to the world around us are explored in readings and classroom discussion. Human behavior, the diversity of lifestyles and the components of a healthy personality are studied in an effort to develop a pattern for growth that demonstrates a responsibility to self and society. (3 Lec.)

(HD) 107 Developing Leadership Behavior (3)
The basic purpose of this course is to help the student develop leadership and human relation skills. Topics include individual and group productivity, value systems, appropriate communication skills, and positive attitudes in a group environment. The concepts of leadership are explored through both theory and practice. These leadership activities can be applied to the student's personal, business, and professional interactions. (3 Lec.)

(HD) 110 Assessment Of Prior Learning (1)
Prerequisite: Limited to students in Technical/Occupational programs. Demonstrated competence approved by the instructor is required. This course is designed to assist students in documenting prior learning for the purpose of applying for college credit. Students develop a portfolio which includes a statement of educational/career goals, related non-collegiate experiences which have contributed to college-level learning, and documentation of such experiences. This course may be repeated for credit. (1 Lec.)

HUMANITIES

(HUM) 101 Introduction to the Humanities (3)
Related examples of humans' creative achievements are examined. Emphasis is on understanding the nature of humans and the values or human life. (This course is offered on campus and may be offered via television.) Laboratory fee required for television course. (3 Lec.)

(HUM) 102 Advanced Humanities (3)
Prerequisite: Humanities 101 or demonstrated competence approved by the instructor. Human value choices are presented through the context of the humanities.. Universal concerns are explored, such as a person's relationship to self and to others and the search for meaning. The human as a loving, believing and hating being is also studied. Emphasis is on the human as seen by artists, playwrights, filmmakers, musicians, dancers, philosophers, and theologians. The commonality of human experience across cultures and the premises for value choices are also stressed. (3 Lec.)

INTERPRETER TRAINING PROGRAM

(ITP) 140 Introduction to Deafness (3)
The psychology and history of educating the deaf are introduced. Emphasis is on the psychological, social, emotional, and occupational aspects of deafness. (3 Lec., 1 Lab.)

(ITP) 141 Beginning Sign Language (4)
Sign language and fingerspelling are introduced. Practice and experience in developing expressive and receptive skills are provided. Emphasis is on mastering expressive skills. Laboratory fee. (3 Lec., 2 Lab.)

(ITP) 143 Intermediate Sign Language (4)
Prerequisite: Interpreter Training 141. Receptive and expressive fingerspelling skills are increased. Basic vocabulary is expanded, and idioms are introduced. Emphasis is on mastering receptive skills. Laboratory fee. (3 Lec., 2 Lab.)

(ITP) 144 Psychosocial Aspects of Deafness (3)
This course focuses on exploration of the psychosocial aspects of deafness. Vocational problems are also explored and studied. (3 Lec.)

(ITP) 147 Language Development of the Deaf (3)
The language development of deaf persons is studied. The period from infancy to adulthood is included. The importance of family, community, and school relationships is stressed. Various methods and materials used in developing language are presented. An overview of learning theory and normal language acquisition is also included. (3 Lec.)

(ITP) 148 Receptive Fingerspelling (1)
Prerequisites: Interpreter Training 141 or concurrent enrol-

lment in Interpreter Training 141. This course increases the student's ability to read fingerspelling. Video tapes are used to demonstrate finger spelling —starting with two-letter words and progressing to words of several syllables. These words are presented individually as well as in sentences. (2 Lab.)

(ITP) 150 Management Techniques for the Interpreter/Aide (4)
This course will emphasize management of the classroom through techniques of behavior modification and training in interpersonal relationships. It will include defining the role of the teacher aide and the teacher aide/interpreter in the classroom. An overview of all types of media will be presented with emphasis on specialized classroom use of media for the deaf. The course will also cover the uses of auditory equipment with the deaf and training in techniques of using hearing aids and materials to enable the deaf to respond meaningfully to their environments. (3 Lec., 3 Lab.)

(ITP) 231 Interpreting: Ethics and Specifics (3)
Prerequisite: Interpreter Training 143 or demonstrated competence approved by the instructor. This class focuses on interpreter protocol, i.e., manner of dress, code of ethics, and language level. The student will learn about the preparation and training to become an interpreter for the deaf in different settings. Examples of these settings are legal, religious, vocational, medical, educational, counseling and rehabilitation. (3 Lec.)

(ITP) 240 Advanced Sign Language (4)
Prerequisite: Interpreter Training 143. Students will study linguistic aspects of American Sign Language and will apply this knowledge by translating written English selections into ASL. Students' vocabularies will be increased by their study of multiple English synonyms per ASL sign and "idiomatic" sign language expressions. Students will receive practice in the expressive and receptive modes of both sign language and fingerspelling. Emphasis will be on mastery of ASL. Laboratory fee. (3 Lec., 2 Lab.)

(ITP) 247 Special Problems in Deafness (3)
Prerequisite: Demonstrated competence approved by the instructor. Various topics are studied as demand warrants. Examples include residential care, introduction to rehabilitation, and the deaf/blind. This course may be repeated for credit when topics vary. (3 Lec.)

(ITP) 248 Rehabilitation of the Multiply Handicapped Deaf (3)
Other handicapping conditions accompanying deafness are studied. The emphasis is on problems of development and education and on severity of vocational problems when deafness is one of the handicaps. Techniques of management and instruction are included. Instructional personnel will include guest professionals from areas of all handicaps. (3 Lec., 1 Lab.)

(ITP) 250 Interpreting: Sign to Voice (3)
Prerequisite: Interpreter Training 240. This course is designed for the advanced sign language students. Sign to voice skills are developed and practiced through the use of video tapes (including Manual in coded English to ASL), audio tapes and live subjects. (3 Lec.)

(ITP) 251 Educational/Specialized Signs (4)
Prerequisites: Interpreter Training 141, 142, 143 and 240. This course provides students with knowledge of specialized signs, particularly educational signs. Other content covered is medical, sexual, legal, drug related, and religious. Additional content areas are explored as needed. Laboratory fee. (3 Lec., 2 Lab.)

(ITP) 253 Interpreting: Voice to Sign (3)
Prerequisite: Interpreter Training 240. Students will acquire theoretical information pertaining to the expressive aspect of interpreting. Students will interpret in class by using audio tapes and live speakers. Each student's vocabulary/sign choice and performance will be analyzed and recommendations made for improvement of delivery. Laboratory fee. (3 Lec.)

(ITP) 260 Practicum (3)
Prerequisites: Fifteen hours of Interpreter Training courses and demonstrated competence approved by the instructor. An extended practicum involves carefully selected areas of service to the deaf upon student demonstration of interest and aptitude. Course content is primarily applied practicum experiences in specific areas of interest. (10 Lab.)

(ITP) 802 Cooperative Work Experience (2)
(See Cooperative Work Experience) (1 Lec., 10 Lab.)

(ITP) 803 Cooperative Work Experience (3)
(See Cooperative Work Experience) (1 Lec., 15 Lab.)

JOURNALISM

(JN) 101 Introduction To Mass Communications (3)
This course surveys the field of mass communications. Emphasis is on the role of mass media in modern society. (3 Lec.)

(JN) 102 News Gathering And Writing (3)
Prerequisite: Typing ability. This course focuses upon recognizing newsworthy events, gathering information and writing the straight news story. It provides a basis for future study in newspaper and magazine writing, advertising, broadcast journalism and public relations. Students are required to write for the campus newspaper. (2 Lec., 3 Lab.)

(JN) 103 News Gathering And Writing (3)
Prerequisite: Journalism 102 or professional experience approved by the instructor. This course is a continuation of Journalism 102. Students study and practice writing more complex stories, such as features, profiles,follow-up stories, and sidebars. Students are required to write for the campus newspaper. (2 Lec., 3 Lab.)

(JN) 104 Student Publications (1)
Prerequisite: Demonstrated competence approved by the instructor. This course may not be taken for credit concurrently with Journalism 102 or 103. Individual staff assignments are made for the student newspaper. Assignments may be made in writing, advertising, photography, cartooning, or editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. (3 Lab.)

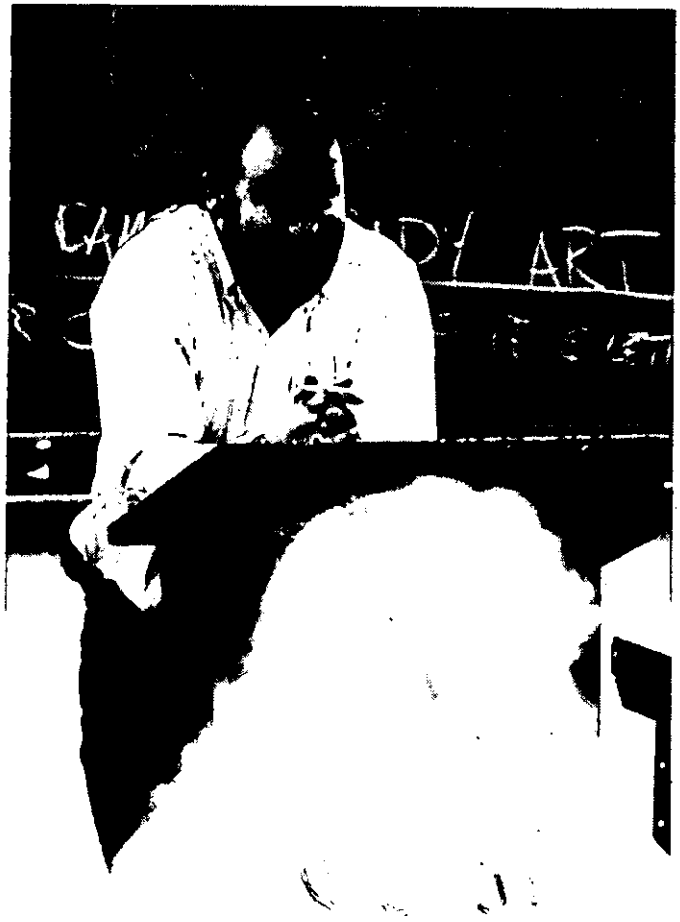
(JN) 105 Student Publications (1)
Prerequisite: Demonstrated competence approved by the instructor. This course may not be taken for credit concurrently with Journalism 102 or 103. This course is a continuation of Journalism 104. (3 Lab.)

(JN) 106 Student Publications (1)
Prerequisite: Demonstrated competence approved by the instructor. This course may not be taken for credit concurrently with Journalism 102 or 103. The course is a continuation of Journalism 105. (3 Lab.)

(JN) 202 Principles Of Advertising (3)
Fundamentals of advertising, including advertising appeals, print and broadcast copy writing, and design and selection of media will be covered. Typography as it relates to advertising is stressed. The course will provide students with the concepts they will need to go into the advertising field and into advanced advertising courses. (3 Lec.)

(JN) 203 Survey Of Broadcasting (3)
This course stresses broadcast organization and operations, and includes the theoretical and historical aspects of broadcasting. It introduces students to the social, political, technical, and economic aspects of the broadcasting industry. (3 Lec.)

(JN) 204 News Editing And Copy Reading (3)
Prerequisite: Journalism 102. This course focuses on editing news for newspaper, radio, and television. Emphasis is on writing headlines and laying out pages. (3 Lec.)



MANAGEMENT

(MGT) 136 Principles Of Management (3)
The process of management is studied. The functions of planning, organizing, leading, and controlling are included. Particular emphasis is on policy formulation, decision-making processes, operating problems, communications theory, and motivation techniques. This course is offered on campus and may be offered via television. (3 Lec.)

(MGT) 150 Management Training (4)
Prerequisite: Concurrent enrollment in Management 154 or demonstrated competence approved by the instructor. This course consists of supervised on-the-job training, giving practical experience to students of business management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge. (20 Lab.)

(MGT) 151 Management Training (4)
Prerequisite: Concurrent enrollment in Management 155 or demonstrated competence approved by the instructor. This course consists of supervised on-the-job training, giving practical experience to students of business management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge. (20 Lab.)

(MGT) 153 Small Business Management (3)
The student will study the fundamental approaches to planning, establishing, and operating a small business. The day-to-day operation of the business and reporting procedures will be studied as well as exploring the concepts of general management. (3 Lec.)

(MGT) 154 Management Seminar:Role Of Supervision (2)
Prerequisite: Concurrent enrollment in Management 150 or demonstrated competence approved by the instructor. This seminar is designed to explore the role of the supervisor from an applied approach. Emphasis is on improving leadership skills, motivational techniques, effective time management, goal-setting, planning and overcoming communication problems. (2 Lec.)

(MGT) 155 Management Seminar:Personnel Management (2)
Prerequisite: Concurrent enrollment in Management 151 or demonstrated competence approved by the instructor. This course is designed to explore the manager's role in attracting, selecting, and retaining qualified employees. Planning for and recruiting employees, selecting high performers, improving interviewing skills, conducting performance appraisals, training, EEO legislation, and labor relations are emphasized through an applied approach. (2 Lec.)

(MGT) 171 Introduction To Supervision (3)
Prerequisite: Enrollment in Technical/Occupational program or demonstrated competence approved by the instructor. This course is a study of today's supervisors and their problems. The practical concepts of modern-day, first-

line supervision are described. Emphasis is on the supervisor's major functions, such as facilitating relations with others, motivating, communicating, handling grievances, recruiting, counseling, and cost accounting. (3 Lec.)

(MGT) 212 Special Problems In Business (1)
Each student will participate in the definition and analysis of current business problems. Special emphasis will be placed upon relevant problems and pragmatic solutions that integrate total knowledge of the business process in American society. This course may be repeated for credit up to a maximum of three hours credit. (1 Lec.)

(MGT) 242 Personnel Administration (3)
This course presents the fundamentals, theories, principles, and practices of people management. Emphasis is on people and their employment. Topics include recruitment, selection, training, job development, interactions with others, labor/management relations, and government regulations. The managerial functions of planning, organizing, staffing, directing, and controlling are also covered. (3 Lec.)

(MGT) 250 Management Training (4)
Prerequisite: Concurrent enrollment in Management 254 or demonstrated competence approved by the instructor. This course consists of supervised on-the-job training, giving practical experience to students of business management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge. (20 Lab.)

(MGT) 251 Management Training (4)
Prerequisite: Concurrent enrollment in Management 255 or demonstrated competence approved by the instructor. This course consists of supervised on-the-job training, giving practical experience to students of business management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge. (20 Lab.)

(MGT) 254 Management Seminar:Organizational Development (2)
Prerequisite: Concurrent enrollment in Management 250 or demonstrated competence approved by the instructor. The role of managers in managing human resources, group interaction and team building, motivational dynamics, improving interpersonal communication skills, and dealing with company politics and conflict are explored in this course through an applied approach. (2 Lec.)

(MGT) 255 Management Seminar:Planning, Strategy, And The Decision Process (2)
Prerequisite: Concurrent enrollment in Management 251 or demonstrated competence approved by the instructor. This course is designed to develop managerial skills in individual and group decision-making and cause analysis. Rational and creative problem-solving skills are developed. Personal and organizational strategy skills are enhanced. (2 Lec.)

(MGT) 703 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(MGT) 704 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

MARKETING

(MKT) 137 Principles of Retailing (3)
The operation of the retail system of distribution is examined. Topics include consumer demand, requirements, computer use, store location and layout, and credit policies. Interrelationships are emphasized. (3 Lec.)

(MKT) 206 Principles of Marketing (3)
The scope and structure of marketing are examined. Marketing functions, consumer behavior, market research, sales forecasting, and relevant state and federal laws are analyzed. (3 Lec.)

(MKT) 230 Salesmanship (3)
The selling of goods and ideas is the focus of this course. Buying motives, sales psychology, customer approach, and sales techniques are studied. (3 Lec.)

(MKT) 233 Advertising and Sales Promotion (3)
This course introduces the principles, practices, and media of persuasive communication. Topics include buyer behavior, use of advertising media, and methods of stimulating sales people and retailers. The management of promotion programs is covered, including goals, strategies, evaluation, and control of promotional activities. (3 Lec.)

MATHEMATICS

(MTH) 101 College Algebra (3)
Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. This course is a study of functions and relations, absolute values, variation, quadratic equations, complex numbers, functions of two variables, systems of equations and inequalities, elementary aspects of the theory of equations, progressions, the binomial theorem, and algebraic proofs. (3 Lec.)

(MTH) 102 Plane Trigonometry (3)
Prerequisite: Mathematics 101 or equivalent. This course is a study of angular measures, functions of angles, identities, solutions of triangles, equations, inverse trigonometric functions, and complex numbers. (3 Lec.)

(MTH) 111 Mathematics for Business and Economics I (3)
Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. This course includes equations, inequalities, matrices, linear programming; linear, quadratic, polynomial, rational, exponential, and logarithmic functions; and probability. Applications to business and economics problems are emphasized. (3 Lec.)

(MTH) 112 Mathematics for Business and Economics II (3)
Prerequisite: Mathematics 111. This course includes limits, differential calculus, integral calculus, and appropriate applications. (3 Lec.)

(MTH) 121 Analytic Geometry (3)
Prerequisite: Mathematics 102 or equivalent. This course is a study of the real numbers, distance, the straight line, conics, transformation of coordinates, polar coordinates, parametric equations, and three-dimensional space. (3 Lec.)

(MTH) 124 Calculus I (5)
Prerequisite: Mathematics 121 or equivalent. This course is a study of limits, continuity, derivatives, and integrals of algebraic and transcendental functions, with applications. (5 Lec.)

(MTH) 130 Business Mathematics (3)
Prerequisites: One year of high school algebra and an appropriate assessment test score or Developmental Mathematics 091 or the equivalent. This course is intended primarily for students in specialized occupational programs. It is a study of simple and compound interest, bank discount, payrolls, taxes, insurance, mark up and mark down, corporate securities, depreciation, and purchase discounts. (3 Lec.)

(MTH) 139 Applied Mathematics (3)
This course is a study of commercial, technical, and other applied uses of mathematics. Topics vary to fit the needs of the students enrolled in a particular technical/occupational program. The prerequisite will vary accordingly and be determined by the needed skils. (3 Lec.)

(MTH) 195 Technical Mathematics I (3)
Prerequisites: One year of high school algebra and an appropriate assessment test score or Developmental Mathematics 091 or the equivalent. This course is designed for technical students. It covers the basic concepts and fundamental facts of plane and solid geometry, computational techniques and devices, units and dimensions, the terminology and concepts of elementary algebra, functions, coordinate systems, simultaneous equations, and stated problems. (3 Lec.)

(MTH) 196 Technical Mathematics II (3)
Prerequisite: Mathematics 195. This course is designed for technical students. It includes a study of topics in algebra, an introduction to logarithms, and an introduction to trigonometry, trigonometric functions and the solution of triangles. (3 Lec.)

(MTH) 202 Introductory Statistics (3)
Prerequisite: Two years of high school algebra or demonstrated competence approved by the instructor. This course is a study of collection and tabulation of data, bar charts, graphs, sampling, measures of central tendency and variability, correlation, index numbers, statistical distributions, probability, and application to various fields. (3 Lec.)

(MTH) 221 Linear Algebra (3)
Prerequisite: Mathematics 124 or equivalent. This course is a study of matrices, linear equations, dot products, cross products, geometrical vectors, determinants, n-dimensional space, and linear transformations. (3 Lec.)

(MTH) 225 Calculus II (4)
Prerequisite: Mathematics 124 or the equivalent. This course is a study of techniques of integration, polar coordinates, parametric equations, topics in vector calculus, sequences, series, indeterminate forms, and partial differentiation with applications. (4 Lec.)

(MTH) 226 Calculus III (3)
Prerequisite: Mathematics 225 or the equivalent. This course is a study of topics in vector calculus, functions of several variables, and multiple integrals, with applications. (3 Lec.)

(MTH) 230 Differential Equations (3)
Prerequisite: Mathematics 225 or demonstrated competence approved by the instructor. This course is a study of ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, boundary value problems, and applications. (3 Lec.)

MUSIC

(MUS) 103 Guitar Ensemble (1)
Music composed and arranged for a guitar ensemble is performed. Works for a guitar and a different instrument or for guitar and a voice are also included. This course may be repeated for credit. (3 Lab.)

(MUS) 104 Music Appreciation (3)
The basic elements of music are surveyed and examined in the music literature of western civilization, particularly from the Baroque Period to the present. Cultural influences on the music of each era are observed. (3 Lec.)

(MUS) 105 Italian Diction (1)
The phonetic sounds of the Italian language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(MUS) 106 French Diction (1)
The phonetic sounds of the French language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(MUS) 107 German Diction (1)
The phonetic sounds of the German language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(MUS) 108 English Diction (1)
The phonetic sounds of the English language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(MUS) 110 Music Literature (3)
The music of recognized composers in the major periods of music history is examined. Topics include the characteristics of sound, elements of music, performance media, and musical texture. Emphasis is on the music of the late Gothic, Renaissance and Baroque eras. (3 Lec.)

(MUS) 111 Music Literature (3)
Prerequisite: Music 110. This course is a continuation of Music 110. The compositional procedures and forms used by composers are studied. Emphasis is on the Classical, Romantic, and Modern periods. (3 Lec.)

(MUS) 112 Guitar Literature And Materials (3)
The body of music for the guitar is surveyed. Emphasis is on the repertoire of instruments in the guitar family, such as the lute. Transcription and arranging are studied as well as the selection of a program for public performance. (3 Lec.)

(MUS) 113 Foundations Of Music I (3)
This course focuses on participation and skills for satisfactory performance in singing, playing an instrument, listening, and creating rhythmic responses. The ability to manage notation (music reading) is developed. (3 Lec.)

(MUS) 114 Foundations In Music II (3)
Prerequisite: Music 113. This course prepares students with limited music training for Music 145 and increases their general music understanding. Emphasis is on rhythmic and melodic training, chord functions, melody, textures, and basic analysis of music. (3 Lec.)

(MUS) 115 Jazz Improvisation (2)
The art of improvisation is introduced. Basic materials, aural training, analysis, and common styles are presented. This course may be repeated for credit. (1 Lec., 2 Lab.)

(MUS) 117 Piano Class I (1)
This course is primarily for students with no knowledge of piano skills. It develops basic musicianship and piano skills. This course may be repeated for credit. (2 Lab.)

(MUS) 118 Piano Class II (1)
The study of piano is continued. Included are techniques, skills, harmonization, transposition, improvisation, accompanying, sight-reading, and performing various styles of repertoire. This course may be repeated for credit. (2 Lab.)

(MUS) 119 Guitar Class I (1)
This course is primarily for students with limited knowledge in reading music or playing the guitar. It develops basic guitar skills. This course may be repeated for credit. (2 Lab.)

(MUS) 120 Guitar Class II (1)
Prerequisite: Music 119 or the equivalent. This course is a continuation of Music 119. Emphasis is on classical guitar techniques and music reading skills. This course may be repeated for credit. (2 Lab.)

(MUS) 121-143 Applied Music-Minor (1)
This course is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the student's secondary area and consists of a one-half hour lesson a week. Private music may be repeated for credit. Laboratory fee required. (1 Lec.)

(MUS) 145 Music Theory I (3)
This course presents the basic elements of music. Emphasis is on notation, cadences, classification of diatonic triads, scales and modes. (3 Lec.)

(MUS) 146 Music Theory II (3)
Prerequisite: Music 145. This course focuses on part-writing and harmonization with triads and their inversions. Also included is a chord vocabulary expanded to include materials from the common practice period as well as later periods. (3 Lec.)

(MUS) 150 Chorus (1)
Prerequisite: Demonstrated competence approved by the instructor. A wide variety of music representing the literature of the great eras of music history is studied and performed. This course may be repeated for credit. (3 Lab.)

(MUS) 151 Voice Class I (1)
This course is for non-voice majors. It presents the principles of breathing, voice production, tone control, enunciation, and phrasing in two group lessons a week. This course may be repeated for credit. (2 Lab.)

(MUS) 152 Voice Class II (1)
This course is a continuation of Music 151. It is open to all non-voice majors. Emphasis is on solo singing, appearance in studio recital, stage deportment, and personality development. Two group lessons are given a week. This course may be repeated for credit. (2 Lab.)

(MUS) 155 Vocal Ensemble (1)
A group of mixed voices concentrates on excellence of performance. Membership is open to any student by audition. The director selects those who possess special interest and skill in the performance of advanced choral literature. This course may be repeated for credit. (3 Lab.)

(MUS) 160 Band (1)
Prerequisite: Demonstrated competence approved by the instructor is required for non-wind instrument majors. The band studies and performs a wide variety of music in all areas of band literature. This course may be repeated for credit. (3 Lab.)

(MUS) 161 Musicianship I (1)
This course relates to topics in Music 145. Aural skills including sight-singing, ear training, and keyboard are developed. (3 Lab)

(MUS) 162 Musicianship II (1)
Prerequisite: Music 161. This course relates to topics in

Music 146. Aural music skills including sight-singing, ear training, and keyboard are further developed. (3 Lab.)

(MUS) 170 Orchestra (1)
Experience is provided in performing and reading orchestral literature and in participating in the college orchestra. This course may be repeated for credit. (3 Lab.)

(MUS) 171 Woodwind Ensemble (1)
A group of woodwind instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. (3 Lab.)

(MUS) 172 Brass Ensemble (1)
A group of brass instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. (3 Lab.)

(MUS) 173 Percussion Ensemble (1)
A group of percussion instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. (3 Lab.)

(MUS) 174 Keyboard Ensemble (1)
A group of keyboard instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. (3 Lab.)

(MUS) 175 String Ensemble (1)
A group of string instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. (3 Lab.)

(MUS) 185 Stage Band (1)
Prerequisite: The demonstrated competence approved by the instructor. In the Stage Band students study and perform a wide variety of music. Emphasis is on the jazz-oriented, big-band styles of the 1960's. This course may be repeated for credit. (3 Lab.)

(MUS) 203 Composition (3)
Prerequisites: Music 145 and 146 or demonstrated competence approved by the instructor. This course covers composing in small forms for simple media in both traditional styles and styles of the student's choice. The course may be repeated for credit. (3 Lec.)

(MUS) 205 Guitar Pedagogy (1)
Guitar method books are surveyed. Emphasis is on the strengths and weaknesses of each method. Structuring lessons and optimizing each individual teacher-student relationship are also discussed. (2 Lec.)

(MUS) 221-243 Applied Music-Concentration (2)
This course is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the area of the student's concentration and consists of two half-hour lessons a week. Laboratory fee required. Private music may be repeated for credit. (1 Lec.)

(MUS) 245 Music Theory III (3)
Prerequisite: Music 146. This course is a continuation of the study of music theory. It includes the materials of modulation, larger forms, and thematic development. (3 Lec.)

(MUS) 246 Music Theory IV (3)
Prerequisite: Music 245. This course is a continuation of the topics developed in Music 245. The preceding materials are expanded to include melody, harmony, tonality, and the formal processes of 20th century music. (3 Lec.)

(MUS) 251-270 Applied Music-Major (3)
This course is primarily for music performance majors and is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the area of the student's major instrument, and consists of two half-hour lessons a week. Laboratory fee. (1 Lec.)

(MUS) 271 Musicianship III (1)
Prerequisite: Music 162. This course relates to topics in Music 245. Aural music skills, including sight-singing, ear training, and keyboard are developed. (3 Lab.)

(MUS) 272 Musicianship IV (1)
Prerequisite: Music 271. This course relates to topics in Music 246. Aural music skills, including sight-singing, ear training, and keyboard are developed. (3 Lab.)

OFFICE CAREERS

(OFC) 103 Speedwriting Theory (4)
Prerequisite: Credit or concurrent enrollment in Office Careers 172 or one year of typing. The principles of speedwriting are introduced. Included is the development of the ability to read, write and transcribe speedwriting notes. Basic spelling, grammar and punctuation rules are reviewed. (3 Lec., 2 Lab.)

(OFC)106 Speedwriting Dictation and Transcription (4)
Prerequisite: Office Careers 103. Principles of speedwriting are applied to build dictation speed and transcription rate. Special attention is given to the review of grammar, spelling and punctuation rules. Laboratory fee. (3 Lec., 2 Lab.)

(OFC) 143 Contemporary Topics In Office Careers (1)
Prerequisite: Demonstrated competence approved by the instructor. This course emphasizes current topics of interest in office career fields. Realistic solutions to problems relevant to the needs of industry are presented. This course may be repeated for credit with difference emphasis up to six hours. (1 Lec.)

(OFC) 159 Beginning Shorthand (4)
Prerequisites: Credit or concurrent enrollment in Office Careers 172 or one year of typing in high school. The principles of Gregg Shorthand are introduced. Included is the development of the ability to read, write, and transcribe shorthand outlines. Knowledge of the mechanics of English is also developed. Laboratory fee. (3 Lec., 2 Lab.)

(OFC) 160 Office Calculating Machines (3)
This course focuses on the development of skills in using office machines. Adding machines, printing calculators, and electronic display calculators, and electronic printing calculators are included. Emphasis is on developing the touch system for both speed and accuracy. Office Careers 160 is equivalent to Office Careers 192, 193, and 194. Laboratory fee. (3 Lec.)

(OFC) 162 Office Procedures (3)
Prerequisite: Office Careers 173 or concurrent enrollment or demonstrated competence approved by the instructor. This course bridges the gap between the basic skills courses and current office practices. Topics include records management, electronic filing, reprographics, mail, telephone usage, financial transactions, and interpersonal relations. (3 Lec.)

(OFC) 166 Intermediate Shorthand (4)
Prerequisites: Office Careers 159 or one year of shorthand in high school, Office Careers 172 or one year of typing in high school. The principles of Gregg Shorthand are studied. Emphasis is on increased speed dictation, accuracy in typing from shorthand notes, and beginning techniques of transcription skills. Also included are oral reading, speed building, and grammar. Office Careers 166 is equivalent to Office Careers 187, 188, and 189. Laboratory fee. (3 Lec., 2 Lab.)

(OFC) 167 Legal Terminology and Transcription (3)
Prerequisite: Office Careers 173 and Office Careers 185 or concurrent enrollment or demonstrated competence approved by the instructor. Legal terms are the focus of this course. Included are the spelling and use of legal terms and Latin words and phrases. Intensive practice is provided in building speed and accuracy in the transcription of legal terms. Laboratory fee. (3 Lec.)

(OFC) 172 Beginning Typing (3)
This course is for students with no previous training in typing. Fundamental techniques in typing are developed. The skills of typing manuscripts, business letters, and tabulations are introduced. Office Careers 172 is equivalent to Office Careers 176, 177, and 178. Laboratory fee. (2 Lec., 3 Lab.)

(OFC) 173 Intermediate Typing (3)
Prerequisites: Office Careers 172 or one year of typing in high school. Typing techniques are developed further. Emphasis is on problem solving. Increasing speed and accuracy in typing business forms, correspondence, and manuscripts are also covered. Laboratory fee. (2 Lec., 3 Lab.)

(OFC) 176 Keyboarding (1)
This course is for students with no previous training in typing. The course introduces the typewriter parts. Alphabetic keys, numeric keys, and symbol keys are covered. Fundamental techniques are refined, and speed is developed. Laboratory fee. (1 Lec., 1 Lab.)

(OFC) 177 Beginning Typing II (1)
Prerequisite: Office Careers 176. Practical techniques for business correspondence are developed. Memorandums, personal letters, and business letters are covered. Exercises to increase skill are stressed.Laboratory fee.(1 Lec.)

(OFC) 178 Beginning Typing III (1)
Prerequisite: Office Careers 176. The typing of manuscripts and tables is emphasized. Production typing is included, and proper report typing is developed. Exercises to increase skill are also included. Laboratory fee. (2 Lab.)

(OFC) 179 Office Information Systems Concepts (2)
This course introduces information/word processing and describes its effect on traditional office operations. An understanding of basic information word processing principles, concepts, terminology and advantages of word processing environment system is introduced. This course does not include the operation of a dedicated wordprocessor or microcomputer. (2 Lec.)

(OFC) 182 Introduction to Word Processing Equipment (1)
Prerequisites: Office Careers 173 and Office Careers 179 or concurrent enrollment. This course introduces the fundamental techniques required in the operation of word processing equipment. Basic concepts of electronic storage and retrieval involved in creating, printing, centering, and revising documents are introduced. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

(OFC) 185 Basic Machine Transcription (1)
Prerequisite: Office Careers 172. This course introduces the basic equipment, techniques, and skills required to transcribe recorded business information into mailable documents. Emphasis is placed on grammar, punctuation, and spelling skills required in word processing operations. Automated equipment and audio transcription machines are used. Laboratory fee. (1 Lec., 1 Lab.)

(OFC) 190 Principles of Word Processing (4)
Prerequisite: Office Careers 173 or concurrent enrollment. This course introduces word processing and describes its effect on traditional office operations. An understanding of basic word processing principles and fundamental techniques required in the operation of word processing and transcription equipment are introduced. Emphasis is placed on grammar, punctuation, and spelling skills required in word processing operations. Office Careers 190 is equivalent to Office Careers 179, 182, and 185. Laboratory fee. (3 Lec., 3 Lab.)

(OFC) 192 Office Machines I (1)
Business mathematical skills needed to operate office machines are reviewed. Ten-key touch development is introduced. Speed development is incorporated with accuracy requirements. Laboratory fee. (1 Lec.)

(OFC) 193 Office Machines II (1)
Prerequisite: Office Careers 192. This course offers extensive training on basic office machines. Speed development and business applications are stressed. Laboratory fee. (1 Lec.)

(OFC) 194 Office Machines III (1)
Prerequisite: Office Careers 192. Extensive training on basic office machines is continued. Speed development and business applications are stressed. Laboratory fee. (1 Lec.)

(OFC) 231 Business Communications (3)
Prerequisites: Office Careers 172 or one year of typing in high school and Communications 131 or English 101. This practical course includes a study of letter forms, the mechanics of writing and the composition of various types of communications. A critical analysis of the appearance and content of representative business correspondence, proposals, and reports is made. (3 Lec.)

(OFC) 256 Office Management (3)
This course focuses on the organization, design, and control of office activities. Topics include office practice, office services, and wage payment plans. The selection, training and supervision of employees are covered. Office planning, organizing, and controlling techniques are presented. Responsibilities of the office manager are also included. (3 Lec.)

(OFC) 266 Advanced Shorthand (4)
Prerequisites: Office Careers 166 or two years of shorthand in high school and Office Careers 173 or two years of typing in high school. Emphasis is on building dictation speed. Producing mailable, typed transcriptions under timed conditions is also stressed. Vocabulary and extensive production work capabilities are developed. Laboratory fee. (3 Lec., 2 Lab.)

(OFC) 273 Advanced Typing Applications (2)
Decision-making and production of all types of business materials under timed conditions are emphasized. A continuation of skill development and a review of typing techniques are also stressed. Accuracy at advanced speeds is demanded. Laboratory fee. (1 Lec., 2 Lab.)

(OFC) 274 Legal Secretarial Procedures (3)
Prerequisities: Office Careers 167. This course focuses on procedures of the legal secretary. Topics include reminder and filing systems, telephone usage, dictation and correspondence, the preparation of legal documents, and the court system. Client contacts, use of law library, research techniques, timekeeping, billing, bookkeeping, and ethics are also covered. Ways to obtain a position as a legal secretary are described. (3 Lec.)

(OFC) 282 Word Processing Applications (1)
Prerequisites: Office Careers 190 or 182 and completion of or concurrent enrollment in Office Careers 185. This course is designed for students who have a basic knowledge of word processing equipment. Advanced word processing concepts and machine functions are developed on a specific keyboard. Special emphasis is placed on producing mailable documents. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

(OFC) 283 Specialized Software (1)
Prerequisite: Office Careers 282 or demonstrated competence approved by the instructor. Current information/word processing technology is presented. Specialized applications are performed using automated equipment which the student has previously mastered. Applications will include graphics, math functions, spreadsheets, and the use of other software packages. Dedicated word processing equipment or microcomputers will be used in this course. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

(OFC) 285 Applied Machine Transcription (1)
Prerequisites: Office Careers 173 or 190 and Office Careers 185 or demonstrated competence approved by the instructor. This course is designed for students with basic skills in machine transcription. Emphasis is placed on increasing accuracy and speed in the timed transcription of recorded information. Composing and dictating business communications are introduced. (1 Lec., 1 Lab.)

(OFC) 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

(OFC) 714, 804, 814 Cooperative Work Experience (4)
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

PHILOSOPHY

(PHI) 102 Introduction To Philosophy (3)
The fundamental problems in philosophy are surveyed. Methods to deal with the problems are discussed. Ancient and modern views are examined as possible solutions. (3 Lec.)

(PHI) 103 Critical Thinking (3)
This course is designed to improve students' critical thinking ability. Students will both analyze and construct arguments. Elementary deductive forms, common fallacies, and inductive reasoning are considered. (3 Lec.)

(PHI) 105 Logic (3)
The principles of logical thinking are analyzed. The methods and tools of logic are applied to real-life situations. Fallacies, definitions, analogies, syllogisms, Venn diagrams, and other topics are discussed. (3 Lec.)

(PHI) 202 Introduction To Social And Political Philosophy (3)
The relationships of philosophical ideas to the community are presented. Emphasis is on concepts of natural rights, justice, education, freedom, and responsibility. (3 Lec.)

(PHI) 203 Ethics (3)
The classical and modern theories of the moral nature of the human are surveyed. Alternative views of responsibilities to self and society are posed. Ethical issues and their metaphysical and epistemological bases are vivified. Emphasis is on applying ethical principles in life. (3 Lec.)

(PHI) 207 History Of Ancient Philosophy (3)
The history of philosophy from pre-Socratic times to the Renaissance is examined. Connections are made between the pre- Socratics, Plato, and Aristotle; Stoicism, Epicureanism, and Scholasticism are considered. (3 Lec.)

(PHI) 208 History Of Modern Philosophy (3)
The history of philosophy from the Renaissance through the 19th century is examined. Emphasis is on continental rationalism, British empiricism, Kantian metaphysics and epistemology, and the Hegelian system as it relates to 20th century philosophies. The historical relationship between these schools of thought is explored. (3 Lec.)

PHOTOGRAPHY

(PHO) 110 Introduction To Photography And Photo-Journalism (3)
Photography and photo-journalism are introduced. Topics include the general mechanics of camera lenses and shutters and the general characteristics of photographic films, papers, and chemicals. Darkroom procedures are presented, including enlarging, processing, contact printing, and exposing films and papers. Artificial lighting is studied. Laboratory fee. (2 Lec., 4 Lab.)

(PHO) 111 Advanced Photography And Photo-Journalism (3)
Techniques learned in Photography 110 are refined. Emphasis is on photographic communication. Laboratory fee. (2 Lec., 4 Lab.)

(PHO) 122 Commercial Photography I (3)
Commercial or contract photography is studied. Field, studio, and darkroom experience for various kinds of photography is discussed. Included are social photography, portrait and studio photography, fashion and theatrical portfolio, publicity photography, and convention photography. The use of natural, stationary, flash, and strobe artificial lights is covered. Laboratory fee. (2 Lec., 4 Lab.)

(PHO) 123 Commercial Photography II (3)
This course is a continuation of Photography 120. Publicity photography, architectural photography, interior photography, and advertising photography are included. The latest equipment, papers, films, and techniques are explored. Exchanges are made with sample clients, employers, studios, and agencies. Laboratory fee. (2 Lec., 4 Lab.)

(PHO) 207 Photography For Publications (3)
This course is designed for the student who is interested in journalistic editing, publications photography, and graphic arts procedures. It encourages skills in all three areas and prepares the student for a broad job market that includes photojournalism, printing, editing, composing, and general copy preparation. Students who enroll in this course should have a background in journalism, photography, and graphic arts and be of sophomore standing. Laboratory fee. (2 Lec., 4 Lab.)

PHYSICAL EDUCATION

(PEH) 100 Lifetime Sports Activities (1)
Beginning level skills in various lifetime sports are presented as well as rules, etiquette, safety, strategy, offensive and defensive elements, and conditioning activities where appropriate. Physical Education 100 may be repeated for credit when students select different activities in subsequent semesters. Laboratory fee. (3 Lab.)

(PEH) 101 Health for Today (3)
Emphasis is placed on relating course content to lifestyle to foster a better understanding of the major health issues of today. Current issues include, but are not limited to: emotional health, chemical use and abuse, human sexuality, major diseases, physical fitness, nutrition, aging, death and dying. (This course is offered on campus and may be offered via television.) (3 Lec.)

(PEH) 104 Beginning Soccer (1)
Course content emphasizes the basic playing skills of both indoor and outdoor soccer at the beginner level, as well as rules, strategies, safety, offensive and defensive patterns of play, and competitive activities. Laboratory fee. (3 Lab.)

(PEH) 109 Outdoor Recreation (3)
Outdoor recreation and organized camping are studied. Both the development of these activities and present trends are covered. (3 Lec.)

(PEH) 112 Beginning Softball (1)
Course content includes the basic playing skills of softball at the beginner level, as well as rules, strategies, safety, offensive and defensive elements, and competitive activities. These common elements will be applied to fast pitch, slow pitch, and coed softball. Laboratory fee. (3 Lab.)

(PEH) 113 Beginning Handball And Racquetball (1)
Basic handball and racquetball skills, rules and strategies are taught and class tournaments are conducted. 24 class hours are devoted to each activity. Laboratory fee. (3 Lab.)

(PEH) 114 Beginning Badminton (1)
Course content emphasizes the basic playing skills of badminton at the beginner level, as well as rules, strategies, safety, offensive and defensive elements, and competitive activities. Each of the above elements will be applied to the singles, doubles, and mixed-double games. Laboratory fee. (3 Lab.)

(PEH) 115 Physical Fitness (1)
Students are introduced to fitness related activities for the purposes of gaining the knowledge and skills necessary to evaluate personal fitness level and to develop a personal lifelong fitness program. Activities include, but are not limited to: aerobics, circuit training, flexibility and agility exercises, and weight training. Physical Education 115 may be repeated for credit. Laboratory fee. (3 Lab.)

(PEH) 116 Intramural Athletics (1)
Intramural competition in a variety of activities is offered for men and women. A uniform is required. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(PEH) 117 Beginning Archery (1)
The beginning level skills of target shooting, bow hunting, clout shooting, and wand and trap shooting are emphasized, as well as history, rules of competition, preparation and care of all archery equipment, and safety. Laboratory fee. (3 Lab.)

(PEH) 118 Beginning Golf (1)
Course content emphasizes the basic skills involved in club selection, golf course analysis, shot selection and execution of the golf swing. Rules, scoring, handicapping and etiquette are included. Equipment is furnished. Laboratory fee. (3 Lab.)

(PEH) 119 Beginning Tennis (1)
This course emphasizes the acquisition of beginning level skills in the execution of forehand strokes, backhand strokes, the serve, and the volley. Rules, strategies of the singles and doubles games, etiquette, safety, and competitive activities are included. Laboratory fee. (3 Lab.)

(PEH) 120 Beginning Bowling (1)
Basic bowling skills at the beginner level are emphasized as well as rules, strategies, safety, scoring, and competitive activities. All classes are conducted at an off-campus bowling lane. Laboratory fee. Lane fee. (3 Lab.)

(PEH) 122 Beginning Gymnastics (1)
Beginning level skills in both men's and women's all-around gymnastic events are emphasized. Men's events include horizontal bar, pommel horse, rings, vaulting, floor exercise, and parallel bars. Women's events include floor exercise, vaulting, balance beam, and uneven parallel bars. Basic tumbling skills are also included. All appropriate events will be incorporated into a beginner's level routine. Laboratory fee. (3 Lab.)

(PEH) 123 Beginning Swimming (1)
This course is designed to teach a non-swimmer or a shallow water swimmer only to become a safe and efficient deep water swimmer. After the development of sufficient skill to perform a modified crawl stroke, the elementary back stroke, survival floating and jumping into deep water, leveling off and changing directions, swimmers will be able to swim in deep water. Laboratory fee. (3 Lab.)

(PEH) 124 Social Dance (1)
This course is for students who have limited experience in dance. Ballroom and social dancing are offered. Included are fundamental steps and rhythms of the fox-trot, waltz, tango, and recent dances. "Country" dancing includes the two-step, Cotton-Eyed Joe, square dance, and other dances. Laboratory fee. (3 Lab.)

(PEH) 125 Conditioning Exercise (1)
This course focuses on understanding exercise and its effect on the body. Physical fitness is improved through a variety of conditioning activities. A uniform is required. Laboratory fee. (3 Lab.)

(PEH) 126 Aerobics (1)
This course emphasizes the development of cardiovascular endurance by utilizing choreographed routines which may combine basic dance patterns with walking, jogging, and jumping, etc. Depending on the physical fitness level of the student, each routine can be performed at different intensities. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(PEH) 127 Beginning Basketball And Volleyball (1)
Basic basketball and volleyball rules, skills and strategies are taught and class tournaments are conducted. Sections using men's rules and women's rules may be offered separately. 24 class hours will be devoted to each sport. Laboratory fee. (3 Lab.)

(PEH) 131 Weight Training And Conditioning (1)
Instruction and training in weight training and conditioning techniques are offered. A uniform is required. The course may be repeated for credit. Laboratory fee. (3 Lab.)

(PEH) 132 Self-Defense (1)
Various forms of self-defense are introduced. The history and philosophy of the martial arts are explored. The student should progress from no previous experience in self-defense to an adequate skill level covering basic self-defense situations. Both mental and physical aspects of the arts are stressed. (3 Lab.)

(PEH) 134 Outdoor Education (1)
Knowledge and skills in outdoor education and camping are presented. Planned and incidental experiences take place, including a week-end camp-out. Laboratory fee. (3 Lab.)

(PEH) 144 Introduction To Physical Education (3)
This course is for students majoring in physical education and is designed for professional orientation in physical education, health, and recreation. The history, philosophy, and modern trends of physical education are surveyed. Topics include teacher qualifications, vocational opportunities, expected competencies, and skill testing. (3 Lec.)

(PEH) 147 Sports Officiating I (3)
This course is for students who choose officiating for an avocation and who want to increase their knowledge and appreciation of sports. Sports covered in this course are football, basketball, and other sports as appropriate. Students are expected to officiate intramural games. (2 Lec., 2 Lab.)

(PEH) 148 Sports Officiating II (3)
This course is for students who choose officiating for an avocation and who want to increase their knowledge and appreciation of sports. Sports covered in this course are softball, track and field, baseball, and other sports as appropriate. Students are expected to officiate intramural games. (2 Lec., 2 Lab.)

(PEH) 200 Lifetime Sports Activities II (1)
This course is a continuation of Physical Education 100. Students participate in selected activities. Instruction is at the intermediate and intermediate/advanced levels. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(PEH) 217 Intermediate Archery (1)
Prerequisite: Successful completion of Physical Education 117 or approval of instructor. Archery activities and skills presented in Physical Education 117 are reviewed with emphasis placed on competitive target shooting and field archery. Laboratory fee. (3 Lab.)

(PEH) 218 Intermediate Golf (1)
Prerequisite: Successful completion of Physical Education 118 or approval of instructor. Skills and techniques presented in Physical Education 118 are refined beyond the beginner level. Analysis and practice of the golf swing, swing theory and methods, strategy, and actual course playing are emphasized. Laboratory fee. Green fees. (3 Lab.)

(PEH) 219 Intermediate Tennis (1)
Prerequisite: Successful completion of Physical Education 119 or approval by the instructor. Emphasis is placed on proper execution of the strokes presented in Physical Education 119 as well as on specialty shots such as the lob, overhead, and spins. Competitive activities in singles, doubles and mixed doubles will be available. Laboratory fee. (3 Lab.)

(PEH) 222 Intermediate Gymnastics (1)
Prerequisite: Physical Education 122 or previous gymnastic training. Tumbling and the all-around events for men and women as presented in Physical Education 122 will be emphasized at the intermediate performance level. Course emphasis is placed on the development, preparation, and presentation of gymnastic routines. Laboratory fee. (3 Lab.)

(PEH) 223 Intermediate Swimming (1)
Prerequisite: Successful completion of Physical Education 123, Red Cross Beginning Swimmer Certificate or approval of instructor. The correct performance of the crawl, elementary back stroke, side stroke and breast stroke will be emphasized. Some speed and endurance swimming will be required. Laboratory fee. (3 Lab.)

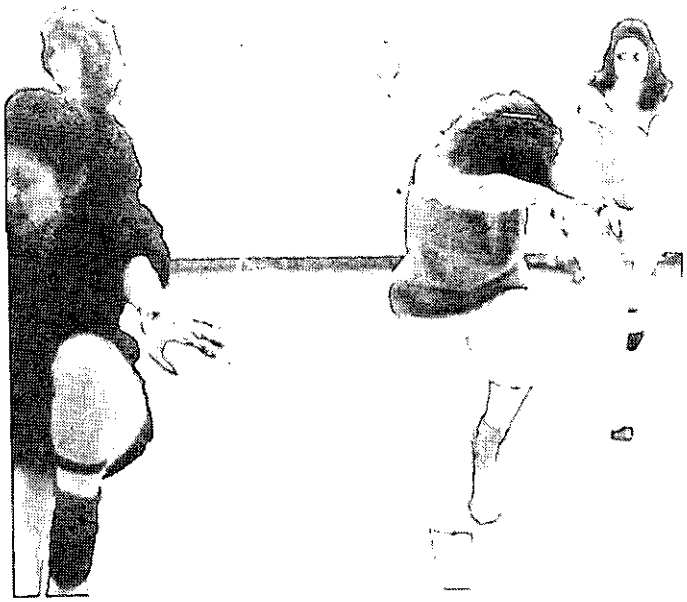
(PEH) 225 Skin and Scuba Diving (2)
Prerequisite: Physical Education 223 or demonstrated competence approved by the instructor. This course includes the use of equipment, safety, physiology, and open water diving. All equipment is supplied except mask, fins, and snorkel. The student may rent needed equipment at the time of registration. Students completing course requirements receive certification as basic scuba divers from the Professional Association of Diving Instructors (PADI) or the National Association of Underwater Instructors (NAUI) or the Young Men's Christian Association (YMCA). Laboratory fee. (1 Lec., 2 Lab.)

(PEH) 226 Advanced Life Saving (1)
Prerequisite: Physical Education 223 or deep water swimming ability. Successful completion of this course qualifies students for the Red Cross Advanced Life Saving Certificate. Laboratory fee. (3 Lab.)

(PEH) 231 Intermediate Weight Training (1)
Prerequisite: Physical Education 131. Skills and instruction in weight training techniques are developed beyond the beginner stage. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(PEH) 232 Intermediate Self Defense (1)
Prerequisite: Physical Education 132 or demonstrated competence approved by the instructor. Students will be introduced to intermediate forms of defense and combination of self defense methods. Emphasis is on practical application of self defense movements. Laboratory fee. (3 Lab.)

(PEH) 233 Jogging For Fitness (1)
Development and improvement of physical fitness through jogging is emphasized. Fitness concepts and jogging skills will be introduced. Laboratory fee. (3 Lab.)



(PEH) 234 Water Safety Instructor (2)
Prerequisite: Current Advanced Life Saving Card. The principles and techniques for instructors in water safety and life saving classes are covered. Completion of the course qualifies the student to test for certification by the Red Cross as a water safety instructor. A uniform is required. Laboratory fee. (1 Lec., 2 Lab.)

(PEH) 236 The Coaching Of Football And Basketball (3)
The skills and techniques of coaching football and basketball are presented. Included are the history, theories, philosophies, rules, terminology, and finer points of the sports. Emphasis is on coaching techniques. (2 Lec., 2 Lab.)

(PEH) 257 Advanced First Aid And Emergency Care (3)
The Advanced First Aid and Emergency Care course of the American Red Cross is taught, presenting both theory and practice. Various aspects of safety education also are included. (3 Lec.)

PHYSICAL SCIENCE

(PSC) 118 Physical Science (4)
This course is primarily for non-science majors. It is a study of the basic principles and concepts of physics, chemistry, and nuclear science. The three basic sciences are related to the physical world at an introductory level. Laboratory fee. (3 Lec., 3 Lab.)

(PSC) 119 Physical Science (4)
This course is for non-science majors. It focuses on the interaction of the earth sciences and the physical world. Geology, astronomy, meteorology, and space science are emphasized. Selected principles and concepts are explored. Laboratory fee. (3 Lec., 3 Lab.)

PHYSICS

(PHY) 111 Introductory General Physics (4)
Prerequisite: Two years of high school algebra, including trigonometry, or the equivalent. This course is for predental, biology, pre-medical, pre-pharmacy, and pre-architecture majors and other students who need a two-semester technical course in physics. Mechanics and heat are studied. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 112 Introductory General Physics (4)
Prerequisite: Physics 111. This course is a continuation of Physics 111. Electricity, magnetism, light, and sound are studied. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 117 Concepts In Physics (4)
This course is for non-science majors. It introduces principles of physics and does not require a mathematical background. Emphasis is on classical mechanics and thermodynamics. Historical developments and their impact on daily life are included. The principle of energy conservation is stressed, and current problems of world-wide energy production are examined. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 118 Concepts In Physics (4)
This is for non-science majors. It introduces principles of physics and does not require a mathematical background. Emphasis is on modern developments in physics. Topics include acoustics, electricity and magnetism, light and the electromagnetic spectrum, atomic physics, and relativity. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 131 Applied Physics (4)
Prerequisite: Mathematics 195 or concurrent enrollment in Mathematics 195. This course is primarily for students in technical programs. The properties of matter, mechanics, and heat are introduced. Emphasis is on uses and problem-solving. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 132 Applied Physics (4)
Prerequisite: Physics 131. This course is a continuation of Physics 131. Concepts of sound, light, electricity, magnetism, and atomic theory are explained. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 201 General Physics (4)
Prerequisite: Credit or concurrent enrollment in Mathematics 124. This course is designed primarily for physics, chemistry, mathematics, and engineering majors. The principles and applications of mechanics, wave motion, and sound are studied. Emphasis is on fundamental concepts, problem-solving, notation, and units. The laboratory includes a one-hour problem session. Laboratory fee. (3 Lec., 3 Lab.)

(PHY) 202 General Physics (4)
Prerequisites: Physics 201 and credit or concurrent enrollment in Mathematics 225. This course presents the principles and applications of heat, electricity, magnetism, and optics. Emphasis is on fundamental concepts, problem solving, notation and units. The laboratory includes a one-hour problem session. Laboratory fee. (3 Lec., 3 Lab.)

PSYCHOLOGY

(PSY) 101 Introduction to Psychology (3)
Introduction to Psychology surveys major topics in the study of behavior. Factors which determine and affect behavior are examined. Psychological principles are applied to the human experience. This course is offered on campus and may be offered via television. (3 Lec.) 

(PSY) 103 Human Sexuality (3)
Students may register for either Psychology 103 or Sociology 103 but receive credit for only one of the two. Topics include physiological, psychological, and sociological aspects of human sexuality. (3 Lec.)

(PSY) 131 Applied Psychology and Human Relations (3)
Psychological principles are applied to human relations problems in business and industry. Topics include group dynamics and adjustment factors for employment and advancement. (3 Lec.)

(PSY) 201 Developmental Psychology (3)
Prerequisite: Psychology 101. This course is a study of human growth, development, and behavior. Emphasis is on psychological changes during life. Processes of life from prenatal beginnings through adulthood and aging are included. (This course is offered on campus and may be offered via television.) (3 Lec.)

(PSY) 202 Applied Psychology (3)
Prerequisite: Psychology 101. Psychological facts and principles are applied to problems and activities of life. Emphasis is on observing, recording, and modifying human behavior. Some off-campus work may be required. (3 Lec.)

(PSY) 205 Psychology of Personality (3)
Prerequisite: Psychology 101. This course is an introduction to the study of personality. Topics of personality and adjustment will be studied in the context of various personality theories. Emphasis will be on the application of those topics. (3 Lec.)

(PSY) 207 Social Psychology (3)
Prerequisite: Psychology 101 or Sociology 101. Students may register for either Psychology 207 or Sociology 207 but may receive credit for only one. Theories of individual behavior in the social environment are surveyed. Topics include the socio-psychological process, attitude formation and change, interpersonal relations, and group processes. (3 Lec.)

RADIO/TELEVISION

(RTV) 210 Television Production I (3)
Prerequisite: Journalism 101 or demonstrated competence approved by the instructor. This course introduces the student to station organization, studio operation, and the use of studio equipment. Topics include continuity, camera operation, sound, lighting, and videotape recording. (2 Lec., 3 Lab.)

(RTV) 211 Television Production II (3)
Prerequisite: Radio/TV 210. This course is a continuation of Radio/TV 210. Emphasis is on the concept and technique of production of television broadcasts in practical situations. (2 Lec., 3 Lab.)

READING

(RD) 101 College Reading and Study Skills (3)
Comprehension techniques for reading college texts are emphasized. Also included are vocabulary development, critical reading, and rate flexibility. Study skills addressed include listening, notetaking, underlining, concentrating, and memory. (3 Lec.)

(RD) 102 Speed Reading And Learning (3)
Reading and learning skills are addressed. Speed reading techniques and comprehension are emphasized. Learning and memory skills are also covered. (3 Lec.)

RELIGION

(REL) 101 Religion In American Culture (3)
This course examines the nature of religion in America. It covers important influences from the past and characteristic of current religious groups and movements. Emphasis is on understanding the role of religion in American life. (3 Lec.)

(REL) 102 Contemporary Religious Problems (3)
Both classic and recent issues are explored. Such topics as the nature of religion, the existance of God, world religions, mysticism, sexuality and religion, and the interpretation of death are included. This course may be offered with emphasis on a specific topic, such as death and dying. (3 Lec.)

(REL) 201 Major World Religions (3)
This course surveys the major world religions. Hinduism Buddhism, Judaism, Islam, and Christianity are included The history of religions is covered, but the major emphasis is on current beliefs. Other topics may also be included, such as the nature of religion, tribal religion, and alternatives to religion. (3 Lec.)

SOCIAL WORK

(SW) 101 Orientation to Social Services (3)
The historical development of social services in our society is surveyed. Emphasis is on current needs, practices, and projected changes. Contact with community agencies gives students the opportunity to assess their interest in a helping profession. (3 Lec.)

(SW) 103 Social Work Methods (3)
Basic social work practices are introduced. Terminology and techniques are studied. Primary functions performed by social service workers are identified. (3 Lec.)

(SW) 105 Basic Interviewing and Counseling Skills (3)
Social work methods such as intake interviewing, relationship building, and problem identification and resolution are studied. Techniques of listening, observing, and recording are practiced. Various therapeutic models are reviewed. (3 Lec.)

(SW) 107 Abnormal Behavior (3)
Factors associated with defining and identifying abnormal behavior are explored. Psychological meaning of mental illness and the consequences of seeking help for the mentally ill are presented. (3 Lec.)

(SW) 109 Physiology of Addiction (3)
Basic information needed to define problems of alcohol and drug dependency is analyzed. Various physical and psychological effects of chemical abuse will be studied. (3 Lec.)

(SW) 111 Aging in America (3)
Current demographics reflecting the aging of America will be studied. Course objectives focus on understanding people and the aging process. Improving the quality of life for the aging and the effects of discrimination will be emphasized. (3 Lec.)

(SW) 113 Alcoholism Counseling (3)
Prerequisite: Social Work 109. Specific counseling approaches used in treating persons labeled as alcoholics will be presented, including simulated individual and group counseling sessions. Students will be exposed to a variety of counseling styles and community and residential treatment programs. (3 Lec.)

(SW) 201 Introduction to Social Work (3)
Organizationial structure, functions, and administration of social work services are discussed. The history, philosophy, and ethics of social work are also presented. (3 Lec.)

(SW) 203 Alcoholism Treatment Models (3)
Prerequisite: Social Work 109 and Social Work 113. Prevalent approaches to treating alcoholism are studied. Various treatment models (detoxification, halfway houses, aftercare, and other self-help models) are examined. (3 Lec.)

(SW) 205 Social Policies and Programs for the Aging (3)
The legislative origins of social policies affecting the aging are analyzed. Policies and programs studied will include protection of rights and available services for the aging. (3 Lec.)

(SW) 207 Prevention of Chemical Abuse/Dependency (3)
A developmental approach to the study of alcohol (and other substance) abuse and dependency is presented. Exposure to literature and current trends in understanding and preventing substance addiction will be the focus of the course. (3 Lec.)

(SW) 209 Community Services for the Aging (3)
Resources and services for the aging are surveyed. Emphasis is placed on fostering independent living. Concepts of alternate housing, health care, community services, and leisure time activities are presented. (3 Lec.)

(SW) 211 Family Intervention in Chemical Abuse (3)
Prerequisites: Social Work 105 and 109. Advanced counseling techniques which emphasize family intervention in treating chemical dependency are provided. The family systems approach is studied; actual counseling and role playing techniques are used. (3 Lec.)

(SW) 213 Chronic Illness and the Aging (3)
Chronic illnesses and disabling accidents affecting the aging are studied. The effects of medication and treatment are analyzed. Emotional and social implications of chronic illness and disabling accidents for the aging and their families are discussed. (3 Lec.)

(SW) 215 Issues in Chemical Abuse and Addiction (3)
The American value system and resulting legal implications of addiction are analyzed. Other areas of study include prevention, rehabilitation, and the abuser's problematic relationships. (3 Lec.)

(SW) 226 Nursing Home Activity Director Training (4)
The role of the nursing home activity director is the focus of this course. Both the roles of the nurisng home and of the activities program are covered. Topics include the nursing home's historical development and relationship to the community, need and resource assessment, specialized knowledge about the aged resident, and interviewing skills. Program planning, working in groups, programming activities, developing an activities department, and therapeutic techniques in the nursing home are also included. (3 lec., 3 Lab.)

(SW) 228 Special Topics in Social Services (3)
Special topics in social services are studied. Topics will vary depending on current issues of concern and interest. It may be repeated for credit. (3 Lec.)

(SW) 232 Human Behavior and Social Environment (3)
Human behavior caused by changes in the social environment is the focus of this course. This includes an exploration of interdependence, cultural norms, and group affiliation. (3 Lec.)

(SW) 703, 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience) (1 Lec., 15 Lab.)

(SW) 704, 804 Cooperative Work Experience (4)
(See Cooperative Work Experience) 1 Lec., 20 Lab.)

SOCIOLOGY

(SOC) 101 Introduction to Sociology (3)
This course is a study of the nature of society and the sources of group life and social conflict. Topics include institutions, social change, processes, and problems. (This course is offered on campus and may be offered via television.) (3 Lec.)

(SOC) 102 Social Problems (3)
This course is a study of social problems which typically include: crime, poverty, minorities, deviance, population, and health care. Specific topics may vary from semester to semester to address contemporary concerns. (3 Lec.)

(SOC) 103 Human Sexuality (3)
Students may register for either Psychology 103 or Sociology 103 but receive credit for only one of the two. Topics include physiological, psychological, and sociological aspects of human sexuality. (3 Lec.)

(SOC) 203 Marriage And Family (3)
Prerequisite: Sociology 101 recommended. Courtship patterns and marriage are analyzed. Family forms, relationships, and functions are included. Sociocultural differences in family behavior are also included. (3 Lec.)

(SOC) 204 American Minorities (3)
Prerequisite: Sociology 101 or 6 hours of U.S. history recommended. Students may register for either History 204 or Sociology 204 but may receive credit for only one. The principal minority groups in American society are the focus of this course. The sociological significance and historic contributions of the groups are presented. Emphasis is on current problems of intergroup relations, social movements, and related social changes. (3 Lec.)

(SOC) 206 Introduction to Social Work (3)
The development of the field of social work is studied. Topics include the techniques of social work and the requirements for training in social work. (3 Lec.)

(SOC) 207 Social Psychology (3)
Prerequisite: Psychology 101 or Sociology 101. Students may register for either Psychology 207 or Sociology 207 but may receive credit for only one. Theories of individual behavior in the social environment are surveyed. Topics include the socio-psychological process, attitude formation and change, interpersonal relations, and group processes. (3 Lec.)

(SOC) 209 Selected Topics (3)
Prerequisite: Sociology 101 or demonstrated competence approved by the instructor. This is an elective course designed to deal with specific topics in sociology. Examples of topics might be: "urban sociology," "women in society," or "living with divorce." As the topics change, this course may be repeated once for credit. (3 Lec.)

(SOC) 210 Field Studies In American Minorities (3)
Prerequisite: Sociology 101 or Sociology 204. Experience is provided in Indian, Black, and Mexican-American community centers. Work is under professional supervision in a task-oriented setting. (3 Lec.)

(SOC) 231 Urban Social Problems (3)
The sociology of social institutions is studied. Topics include urbanization, theories of formation, and the impact of urbanization on the individual. (3 Lec.)

SPANISH

(SPA) 101 Beginning Spanish (4)
The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)

(SPA) 102 Beginning Spanish (4)
Prerequisite: Spanish 101 or the equivalent or demonstrated competence approved by the instructor. This course is a continuation of Spanish 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. (3 Lec., 2 Lab.)

(SPA) 201 Intermediate Spanish (3)
Prerequisite: Spanish 102 or the equivalent or demonstrated competence approved by the instructor. Reading, composition, and intense oral practice are covered. Grammar is reviewed. (3 Lec.)

(SPA) 202 Intermediate Spanish (3)
Prerequisite: Spanish 201 or the equivalent or demonstrated competence approved by the instructor. This course is a continuation of Spanish 201. Contemporary literature and composition are studied. (3 Lec.)

SPEECH COMMUNICATION

(SC) 100 Speech Laboratory (1)
This course focuses on preparing speeches, reading dialogue from literature, and debating propositions. Presentations are made throughout the community. This course may be repeated for credit each semester. (3 Lab.)

(SC) 101 Introduction to Speech Communication (3)
Theory and practice of speech communication behavior in one-to-one, small group and public communication situations are introduced. Students learn more about themselves, improve skills in communicating with others, and make formal oral presentations. This course requires college-level skills in reading and writing.
(3 Lec.)

(SC) 105 Fundamentals Of Public Speaking (3)
Public speaking is introduced. Topics include the principles of reasoning, audience analysis, collection of materials, and outlining. Emphasis is on giving well prepared speeches. (3 Lec.)

(SC) 109 Voice and Articulation (3)
Students may register for either Speech Communication 109 or Theatre 109 but may receive credit for only one of the two. The mechanics of speech are studied. Emphasis is on improving voice and pronunciation. (3 Lec.)

(SC) 110 Forensic Workshop (1)
This course focuses on preparing speeches, readings, and debate propositions. Presentations are made in competition and before select audiences. This course may be repeated for credit. (2 Lab.)

(SC) 201 Forensic Workshop (1)
This course focuses on preparing speeches, readings, and debate propositions. Presentations are made in competition and before select audiences. This course may be repeated for credit. (2 Lab.)

(SC) 205 Discussion And Debate (3)
Public discussion and argumentation are studied. Both theories and techniques are covered. Emphasis is on evaluation, analysis, and logical thinking. (3 Lec.)

(SC) 206 Oral Interpretation (3)
Techniques of analyzing various types of literature are examined. Practice is provided in preparing and presenting selections orally. Emphasis is on individual improvement. (3 Lec.)

(SC) 208 Group Interpretation (3)
Prerequisite: Speech 105 and 206. Various types of literature are studied for group presentation. Emphasis is on selecting, cutting and arranging prose and poetry, and applying reader's theatre techniques to the group performance of the literature. Although not an acting class, practical experience in sharing selections from fiction and nonfiction with audiences will be offered. (3 Lec.)

THEATRE

(THE) 101 Introduction to the Theatre (3)
The various aspects of theatre are surveyed. Topics include plays, playwrights, directing, acting, theatres, artists, and technicians. (3 Lec.)

(THE) 103 Stagecraft I (3)
The technical aspects of play production are studied. Topics include shop procedures, the planning and fabrication of scenic elements, and backstage operations. (2 Lec., 3 Lab.)

(THE) 104 Stagecraft II (3)
Prerequisite: Theatre 103 or demonstrated competence approved by the instructor. Emphasis is placed on the design process and individual projects. (2 Lec., 3 Lab.)

(THE) 106 Acting I (3)
The theory of acting and various exercises are presented. Body control, voice, interpretation, characterization, and stage movement are included. Both individual and group activities are used. Specific roles are analyzed and studied. (2 Lec., 3 Lab.)

(THE) 107 Acting II (3)
Prerequisite: Theatre 106 or demonstrated competence approved by the instructor. This course is a continuation of Theatre 106. Emphasis is on characterization and ensemble acting. (2 Lec., 3 Lab.)

(THE) 109 Voice and Articulation (3)
Students may register for either Speech 109 or Theatre 109 but may receive credit for only one of the two. Emphasis is on improving voice and pronunciation. (3 Lec.)

(THE) 112 Beginning Dance Technique in Theatre (3)
Basic movements of the dance are explored. Emphasis is on swing movements, circular motion, fall and recovery, contraction and release, and contrast of literal and abstract movements. Body balance, manipulation of trunk and limbs, and the rhythmic flow of physical energy are developed. (2 Lec., 3 Lab.)

(THE) 113 Intermediate Dance (3)
Prerequisite: Theatre 112 or demonstrated competence approved by the instructor. Various aspects of dance are surveyed. Topics include the role of dance in total theatre, the evolution of dance styles, and the jazz style. Emphasis is on the flow of movement, body placement, dynamic intensity, level, focus, and direction. (2 Lec., 3 Lab.)

(THE) 114 Rehearsal and Performance I (1)
Participation in the class may include any phase of rehearsal and performance of the current theatrical presentation. This course may be repeated for credit. (3 Lab.)

(THE) 199 Demonstration Lab (1)
Scenes studied in various theatre classes are demonstrated to show contrast and different styles. This course may be repeated for credit. (1 Lab.)

(THE) 205 Scene Study I (3)
Prerequisites: Theatre 106 and 107. This is a continuation of Theatre 107. Emphasis is on developing dramatic action through detailed study of the script. Students deal with stylistic problems presented by the staging of period plays and the development of realism. Rehearsals are used to prepare for scene work. (2 Lec., 3 Lab.)

(THE) 207 Scene Study II (3)
Prerequisite: Theatre 205. This course is a continuation of Theatre 205. Emphasis is on individual needs of the performer and the various styles of production. (2 Lec., 3 Lab.)

TRANSPORTATION

(TRT) 145 Principles of Rates and Tariffs (3)
Special emphasis is placed on present-day transportation modes, carrier pricing systems documentation, and various regulatory policies. Both case and problem methods are utilized in the study of carrier pricing principles. (3 Lec.)

(TRT) 146 Transportation and Traffic Management (3)
This course is for students majoring in transportation technology. Emphasis is placed on current transportation methods. Topics include carrier services, carrier pricing systems, documentation, carrier liability, claims, import and export procedures, and governmental regulations. (3 Lec.)

(TRT) 215 Physical Distribution (3)
Prerequisite: Transportation Technology 146 or demonstrated competence approved by the instructor. The management and organization of physical distribution are studied. Emphasis is placed on decision-making in inventory control, warehousing, packaging, and material handling. Topics include distribution channels, cost planning, financial control, system design, and understanding the market environment. (3 Lec.)

(TRT) 243 Export/Import Practices (3)
Prerequisite: Transportation Technology 146 or demonstrated competence approved by the instructor. This course includes a study of ocean and air carriers, regulatory agencies, steamship conferences, international freight rates, packaging, marine insurance, U.S. Government export/import regulations, international trade terms, and letters of credit. (3 Lec.)

(TRT) 247 Economics of Transportation (3)
Prerequisite: Transportation Technology 146, Economics 201 or demonstrated competence approved by the instructor. The economic significance of transportation is studied. Topics include the application of economic theory to transportation pricing, the cost behavior of the industry, factors influencing price levels, economic regulatory policies, and the cost of transportation in management decision-making. (3 Lec.)

(TRT) 260 Studies in Transportation Technology (1)
This course provides the student an opportunity to explore selected topics in the field of transportation. This course may be repeated with a different emphasis for a maximum of nine hours of credit. (1 Lec.)

(TRT) 713, 803, 813 Cooperative Work Experience (3)
(See Cooperative Work Experience). (1 Lec., 15 Lab.)

WELDING

(WE) 101 Basic Welding And Cutting Practices (3)
This course is for students who need welding on the job, such as in auto body, auto mechanics, or air conditioning. Emphasis is on setting up and using oxyfuel equipment. Cutting up to and including 3/8" mild steel, welding up to and including 1/8" mild steel, and brazing up to and including 16 ga. mild steel are all included. Setting up and using arc welding equipment are also included. Welding 1/4" through 3/8" mild steel in the flat and vertical position using E60's series electrodes is covered. Laboratory fee. (1 Lec., 5 Lab.)

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