

- John Gerdes, Ph.D., University of California, Riverside, 1982
- Darrell Jackson, Ph.D., Washington State University, 1990
- Curtis W. Noonan, Ph.D., Colorado State University, 2000
- Keith K. Parker, Ph.D., University of California, San Francisco, 1977
- Mark A. Pershouse, Ph.D., University of Texas-Houston, 1993
- Elizabeth A. Putnam, Ph.D., University of Texas-Houston, 1989
- Kevan Roberts, Ph.D., Christie Hospital in Manchester, U.K., 1984
- David M. Shepherd, Ph.D., Oregon State University, 1999
- Jerry R. Smith, Ph.D., University of Mississippi, 1977

Assistant Professors

- J. Josh Lawrence, Ph.D., University of Wisconsin-Madison, 1999
- Erica L. Woodahl, Ph.D., University of Washington, 2004

Lecturer

- David S. Freeman, Ph.D., University of Washington, 1974

Research Associate Professors

- C. Sean Esslinger, Ph.D., Colorado State University, 1992
- Dianne L. DeCamp, Ph.D., University of Delaware, 1988
- David J. Poulsen, Ph.D., University of Delaware, 1995

Research Assistant Professors

- Kathleen M. George, Ph.D., Northwestern University, 1994
- Christopher T. Migliaccio, Ph.D., University of California-Davis, 2000
- Anthony Ward, Ph.D., The University of Montana, 2001

Emeritus Professors

- Todd G. Cochran, Ph.D., University of Washington, 1970
- Charles L. Eyer, Ph.D., Washington State University, 1976
- Rustem S. Medora, Ph.D., University of Rhode Island, 1965

School of Social Work

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Ryan Tolleson Knee, Chair

Social work is a human service profession concerned with the prevention of social problems, the maintenance of satisfying social relationships and the enhancement of human development. It focuses on people and their social environment. Social workers employ a range of knowledge and skills as the basis for constructive intervention on behalf of various client populations. The Bachelor of Arts and Master of Social Work degrees are offered. The Bachelor of Arts degree prepares graduates for generalist social work practice. The Master of Social Work degree prepares graduates for advanced integrated practice.

The undergraduate major in social work is available for those who wish to prepare for: (1) professional employment in the social services; (2) entry into a graduate school of social work; (3) graduate education in other helping service professions. The graduate degree in social work prepares graduates for advanced social work practice. Students can enroll in a two year full-time program or in a part-time option. See The University of Montana Graduate Catalog for a description of the Master of Social Work program. Both the Bachelor of Arts degree and the Master of Social Work degree are fully accredited by the Council on Social Work Education.

Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

Thirty-seven credits in social work courses are required for the B.A. degree. The following courses must be successfully completed: SW 100, 200, 300, 310, 350, 360, 400, 488, and 10 credits in SW 489 over two semesters.

Requirements for the B.A. degree include course work outside the School of Social Work providing content in the social and behavioral sciences, human biology, and human diversity. Required course work includes ECNS 101S (ECON 100S); PSCI 210S (PSC 100S); SOCI

101S (SOC 110S); PSYX 100S, 230S, 233 (PSYC 100S, 240S, 245); BIOL 100N or PSYX 250N; ANTH 180S or SOCI 220S. No fewer than six of these eight course requirements must be completed before enrollment will be permitted in required 300-level social work courses

To enroll in required 300- and 400-level social work courses, social work majors are required to have earned and to maintain a 2.5 grade average for all college course work. In order to insure that they have complied with all course prerequisites, grade point average requirements and compliance with professional social work ethics, students must complete a formal Application to the Social Work Major for school approval prior to admission to required social work courses at the 300-level or above.

Social work majors are required to complete a two-semester practicum placement (SW 489, Field Work Practicum, 10 credits). Refer to the SW 489 course description for admission and completion requirements regarding this specific course.

The Upper-division Writing Expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. SW 310 will satisfy this requirement. Social work majors who wish to explore more specialized study in such areas as children, exceptional persons or the family should consider the Human and Family Development minor program, which is described elsewhere in the catalog. The School of Social Work offers a Title IV-e Child Welfare Training Program for eligible B.A. and M.S.W. students interested in a career in child protective services. The Gerontology Fellows Program is available to undergraduate students pursuing a career in gerontological or intergenerational social work. The Hartford Scholars Practicum Partnership Program is available to masters students wishing to pursue a career in gerontological or intergenerational social work.

Social work majors are expected to conduct themselves according to the ethical standards of the National Association of Social Workers as well as those applicable to students of the University. Other professional expectations are described in the BSLO Student Handbook, available from the school or on web page [www.health.umt.edu/sw/bsw_pa.html].

Majors in social work are assigned a faculty advisor with whom they are required to meet at least once per semester as soon as the social work major is declared. A school advising guide is available to all students at the School of Social Work office or on the web page [www.health.umt.edu/sw/default.htm]. The Master of Social Work requirements are detailed in The University of Montana Graduate online Catalog [www.umt.edu/grad/].

Suggested Course of Study

	First Year	A S
M 105 (MATH 107) (or higher) Contemporary Mathematics	-	3
PSCI 210S (PSC 100S) Introduction to American Government	-	3
PSYX 100S (PSYC 100S) Introduction to Psychology	3	-
SOCI 101S (SOC 110S) Principles of Sociology	-	3
SW 100 Introduction to Social Welfare	3	-
General Education	7	9
Total	16	15
	Second Year	
SW 200 Introduction to Social Work Practice	4	-
BIOL 100N The Science of Life	-	3
ECNS 101S (ECON 100S) Economic Way of Thinking	3	-
PSYX 230S (PSYC 240S) Developmental Psychology	-	3
PSYX 233 (PSYC 245) Fund of Psychology of Aging	-	3
ANTH 180S Race and Minorities or SOC 220S Race and Ethnic Relations	3	-
General Education	6	6
Total	16	15
	Third Year	
SW 300 Human Behavior and Social Environment	4	-
SW 310 Social Welfare Policy and Services	-	3
SW 350, 360 Social Work Intervention Methods I, II	4	4
Electives	6	9
Total	14	16
	Fourth Year	
SW 400 Social Work Research	3	-
SW 488 Field Work Practicum Seminar	2	-
SW 489 Field Work Practicum	5	5
Electives	4	9

Minor in Gerontology

Students in the Gerontology Minor program will study issues of aging from an interdisciplinary perspective and come to understand the interplay between them, including health and medical as well as social and psychological needs of older persons. Although this interdisciplinary minor is housed in the School of Social Work, students in other majors may complete the minor in consultation with both the Chair of the Gerontology Minor and the students' academic advisors in their respective departments. Students must consult with their major advisor to select electives, practicum or volunteer experiences, and integrating courses that will meet the requirements of the minor. The minor will require successful completion of four required core courses (12 credits), an integrating course with gerontological content within the student's major (3 credits), one or two elective courses (3-6 credits), and a practicum course within the student's major (3 credits) for a total of 21-24 credits. Core courses are:

- HS 325 Introduction to Gerontology 3 cr.
- SW 455 Social Gerontology 3 cr.
- PSYX 233 (PSYC 245) Fund of Psychology of Aging 3cr.
- HS 430 Health Aspects of Aging 3 cr.

Students should contact the School of Social Work for a complete list of appropriate major and elective courses.

Courses

U = for undergraduate credit only, UG = for undergraduate or graduate credit, G = for graduate credit. R after the credit indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Social Work (S W)

U 100 Introduction to Social Welfare 3 cr. Offered autumn and spring. Overview of human services, programs and problems in meeting social welfare needs, with emphasis on the complexity of social services and their historical development. Analysis of the value, attitudinal, economic and political factors that condition the provision of these services.

U 195 Special Topics Variable cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 198 Internship Variable cr. (R-3) Offered autumn and spring. Prereq., consent of instructor. Application of classroom learning in off campus internship placements. Prior approval must be obtained from the School of Social Work practicum coordinator and from the Center for Work-Based Learning. A maximum of 6 credits of Internship (198, 398,) may count toward graduation.

U 200 Introduction to Social Work Practice 4 cr. Offered autumn and spring. Prereq., SW 100, sophomore standing. Introduction to social work as a profession, including an examination of goals, guiding philosophy and basic assumptions. Emphasis on a generalist framework of social work practice and the development of beginning analytical and practice skills.

U 295 Special Topics Variable cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

UG 300 Human Behavior and Social Environment 4 cr. Offered autumn and spring. Prereq., SW 200. Prereq. or coreq., PSYC 240S, junior standing. Using the ecological-social systems framework, the integration of knowledge and concepts from the social and behavioral sciences for analysis and assessment of problems and issues relevant to professional social work practice.

UG 310 Social Welfare Policy and Services 3 cr. Offered autumn and spring. Prereq., SW 200. Social welfare history, program planning and analysis with review of selected policies on the national level. Includes international comparisons. Upper-division writing course.

U 323 Women and Social Action in the Americas 3 cr. Offered autumn odd-numbered years. Prereq., one of SW 100, SOCI 101S (SOC 110S), or ANTH 101H or consent of instr. Same as WS 323. Focus on women's experiences of and contributions to social change in North, South and Central America in the mid to late-20th century. Through case studies, testimonials, discussions with activists and Internet connections examine social constructions of gender, compare forms of social action in diverse cultural, political and historical contexts, link practice to theories of social participation, and reflect on lessons learned from women's experiences.

U 324 Gender and the Politics of Welfare 3 cr. Offered autumn even-numbered years. Prereq., SW 100 or consent of instr. Same as WS 324. Exploration of the relationship between gender ideologies and the development of social welfare policies. Examination of historic and contemporary social welfare policies, practices and debates in the United States through a gender lens.

UG 350 Social Work Intervention Methods I 4 cr. Offered autumn and spring. Prereq., SW 200; coreq., SW 300. The study and application of the generalist model of social work practice and related techniques and procedures for the assessment, intervention and prevention of problems in social functioning. Emphasis on individuals and families.

UG 360 Social Work Intervention Methods II 4 cr. Offered autumn and spring. Prereq., SW 350. The study and application of the

generalist model of social work practice and related techniques and procedures for the assessment, intervention and prevention of problems in social functioning. Emphasis on groups and communities.

UG 395 Special Topics Variable cr. (R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses or one-time offerings of current topics.

UG 398 Internship Variable cr. (R-3) Offered autumn and spring. Application of classroom learning in off campus internship placements. Prior approval must be obtained from the School of Social Work practicum coordinator and the Center for Work-Based Learning. A maximum of 6 credits of Internship (198, 398) may count toward graduation.

UG 400 Social Work Research 3 cr. Offered autumn and spring. Prereq., SW 360. Utilization of social research findings in social work practice. Techniques for the collection and analysis of clinical data. Special emphasis on research methodology for the assessment of practitioner and program effectiveness.

UG 410E Ethics and the Helping Professions 3 cr. Offered spring. Prereq., completion of twelve credits in social work or a related discipline or consent of instructor. Analysis of specific ethical dilemmas from personal, professional and policy perspectives. Focus on ethical issues common to the helping professions and utilizing codes of ethics as guides to decision-making. The relationship between professional ethical issues and the development of social policy.

UG 420S Child Abuse and Child Welfare 4 cr. Offered autumn. Prereq., junior standing or consent of instr. Signs and symptoms of physical and sexual abuse and neglect, family dynamics in abuse and neglect, the legal context, programs of prevention and intervention, foster care, special needs adoptions and related issues in child welfare.

UG 423 Addiction Studies 3 cr. Offered spring. Same as PSYC and SOC 423. Examination of chemical dependency and behavioral compulsions, including alcohol and other drugs, gambling, eating disorders, sexual addictions. Ecosystems perspective on etiology, treatment, prevention, family dynamics, community response, and societal contributors. Students engage in a service learning community project which is integrated into the classroom through initial training, regular reflection, and other activities.

UG 430 Health Aspects of Aging 3 cr. Offered spring. Same as HHP and HS 430. Overview of the health aspects of aging in the United States including biological theories of aging, normal physiological changes associated with aging systems, common pathological problems associated with aging, cultural and ethnic differences in the health of elders, health promotion and healthy aging, and the health care continuum of care for older persons.

UG 434 Social Work and the Law 3 cr. Offered spring even-numbered years. Prereq., junior standing. Contemporary implication of social work practice in a judicial arena.

UG 450 Children and Youth at Risk 3 cr. Offered autumn or spring. Focus on the aspects of society that pose a threat to today's youth and the ramification of those threats on youth development and behavior. Resilience and protective factors for youth at risk and strategies to work with those youth. Attention to related systems in Missoula and Montana, including juvenile justice, mental health, child protection, substance abuse, and education.

UG 455S Social Gerontology 3 cr. Offered autumn. Examination of the field of social gerontology, including an examination of the major bio/psycho/social/cultural/spiritual theories of aging, the service system, social and health issues, family and care giving dynamics, social policy, and end of life concerns.

UG 460 Domestic Violence 3 cr. Offered intermittently. Examination of domestic violence in relation to its societal context, with attention to sex role socialization, interpersonal dynamics, and family consequences. Emphasis on etiology, treatment, intervention and prevention.

UG 465 Social Work in a Global Context 3 cr. Offered spring even-numbered years. Prereq., upper-division or graduate standing. Examination of globalization, human rights, poverty, international aid, and gender issues; their relationship to social work and social justice, and strategies for action.

UG 470 Mental Health Practice in Rural Settings 2 cr. Offered autumn odd-numbered years. Prereq., upper-division or graduate standing. Examination of rural settings and how state and federal policy influence the quality and accessibility of mental health care programs and services.

UG 475 Death, Dying and Grief 3 cr. Offered intermittently. Examination of death, dying and grief from an ecological perspective, focusing on the processes of dying and theories of grief. Emphasis on physical, social, psychological, spiritual, and cultural influences that surround death and grief. Consideration of cultural norms, attitudes toward death, medical, legal and ethical issues of dying. Focus on normal and complicated grief.

UG 480 Professional Development in Child Welfare 1 cr. Prereq., junior standing. Offered intermittently. Exploration of diverse issues related to child welfare. Designed to help students and youth workers develop an integrated knowledge base and practice skills for working with youth.

U 485 Counseling Theories in Context 3 cr. Offered spring. Prereq., PSYX 100S. Same as COUN 485 and PSYX 442 (PSYC 485). This course introduces students to the primary theories that constitute the intellectual foundation for common counseling and psychotherapy techniques, with a special focus on gender, interpersonal influence strategies, and diversity issues.

U 488 Field Work Practicum Seminar 2 cr. Offered every term. Coreq., SW 489. Consideration and discussion of practicum-related matters, professional development, and issues confronting the profession.

UG 489 Field Work Practicum Variable cr. (R-10) Offered every term. Prereq., SW 350 and 360 and approved application to practicum coordinator. Coreq., SW 488. Practicum must be taken over two consecutive semesters for a total of 10 credits. Minimum of one credit per semester. Cumulative grade average of 2.75 or above in SW 100, 200, 300, 350 and 360 and a 3.0 grade average for SW 200, 350 and 360 are required. Supervised field work in public and private agencies and institutions. Successful completion of the field work practicum requires a passing performance on the school administered professional social work competency examination.

U 493 Omnibus Variable cr. (R-10) Offered intermittently. Prereq., 10 credits in social work. Independent work under the University omnibus option. See index.

UG 494 Seminar Variable cr. (R-9) Offered intermittently. Prereq., 9 credits in social work.

UG 495 Special Topics Variable cr. (R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

UG 496 Independent Study Variable cr. (R-6) Offered autumn and spring. Prereq., consent of instr.

G 500 Orientation 1 cr. Prereq., admission to M.S.W. program. Seminar introducing M.S.W. students to program philosophy and social work's theory and value base.

G 505 Foundations of Social Work Practice 2 cr. Prereq., admission to M.S.W. program. Introductory practice course that examines generalist social work practice, dominant theoretical influences, and forces shaping social work over time.

G 510 Human Behavior and Social Environment I 3 cr. Prereq., admission to M.S.W. program. Introduction to and critical consideration of social work perspectives on human behavior as influenced by the social environment. Particular attention is paid to biological, psychological, social, cultural and spiritual influences.

G 511 Human Behavior and Social Environment II: Difference, Diversity and Oppression 3 cr. Prereq., admission to M.S.W. program and SW 510 or consent of instr. Advanced course on human behavior and social environment that addresses difference and diversity, histories and mechanisms of discrimination and oppression, and frameworks for thought and practice that recognize diversity and promote social justice.

G 515 Practice with Individuals and Families in a Community Context 4 cr. Prereq., admission to M.S.W. program or consent of instr. Practice-oriented course building on students' developing knowledge of engagement, assessment, intervention and evaluation and the application to practice with individuals and families in context of community.

G 520 Social Work Research Methods 3 cr. Prereq., admission to M.S.W. program or consent of instr. Introduction to principles, methodologies, technologies, and statistical approaches of human service research. Emphasis on beginning capabilities in evaluation of social work practice and skill development regarding use of published research.

G 521 Advanced Research and Program Evaluation 3 cr. Prereq., SW 515. The use of research within the integrated practice model of social work through evaluation of practice and program evaluation. Advanced statistical concepts are applied to direct practice and five types of program evaluation.

G 525 Practice with Groups and Communities 4 cr. Prereq., admission to M.S.W. program or consent of instr. Practice oriented course addressing theories, frameworks, principles, and skills of group and community work. Dynamics of group work and examination of modalities such as mutual aid and social action groups.

G 530 History of Social Policy, Justice and Change 3 cr. Prereq., admission to M.S.W. program or consent of instr. Foundation in social welfare policy and services; examination of relationship between history social welfare policy and emergence of social work profession. Introduction to frameworks for policy analysis.

G 531 Methods of Social Policy Analysis 3 cr. Prereq., SW 530. Focus on the analysis of existing or proposed policies specific to oppressed populations, rural areas and isolated communities.

G 535 Advanced Integrated Practice 4 cr. Prereq., consent of instr. Builds on the skills, knowledge, and values of the foundation generalist and practice courses.

G 545 Practice of Organizational Leadership 4 cr. Prereq., consent of instr. Advanced training in professional leadership and how to effectively conceive, plan, design, implement, manage, assess, and change contemporary organizations.

G 550 Counseling Techniques and Strategies 2 cr. Offered autumn. Prereq., admission to MSW program or consent of instr. Practice-oriented course addressing strategies of clinical intervention, case studies, and philosophy of care.

G 551 Couples and Family Therapy 3 cr. Offered spring. Prereq., admission to the MSW program, SW 505, or consent of instructor. Course explores family-centered methods of clinical social work interventions with couples and families that can be applied in a variety of

settings.

G 552 Psychopathology and Assessment for Social Work 3 cr. Prereq., admission to the MSW program, SW505, or permission of instructor. Focus on current problems of children, adolescents, and adults of all ages that can be classified as a mental disorder under the DSM of the system. Includes information on theories within the bio-psycho-social paradigm of causality of disorders/conditions; on methods of assessment, including DSM-IV; and an understanding of how social injustice, oppression and poverty impacts healthy growth and development across the life span.

G 576 Foundation Integrative Seminar I 1 cr. Prereq., admission to M.S.W. program, SW 505, 587; coreq., SW 589. Seminar accompanying first semester foundation practicum in which students discuss experience with goal of integrating theory and practice.

G 577 Foundation Integrative Seminar II 1 cr. Prereq., admission to M.S.W. program, SW 505, 587; coreq., SW 589. Seminar accompanying second semester foundation practicum in which students discuss experience with goal of integrating theory and practice.

G 578 Advanced Integrative Seminar I 1 cr. Prereq., SW 586; coreq., SW 588. Critical analysis of how predominant social work theories and professional values and skills are being incorporated into the practicum.

G 579 Advanced Integrative Seminar II 1 cr. Prereq., SW 578; coreq., SW 589. Critical analysis of how predominant social work theories and professional values and skills are being incorporated into the practicum. Advanced portfolio development.

G 586 Foundation Practicum I 2 cr. Prereq., admission to M.S.W. program; coreq., SW 586. First semester foundation field practicum experience in a supervised setting designed to provide opportunities to integrate classroom learning and field experiences.

G 587 Foundation Practicum II 2 cr. Prereq., admission to M.S.W. program, SW 505, 587; coreq., SW 588. Second semester foundation field practicum experience in a supervised setting designed to provide opportunities to integrate classroom learning and field experiences.

G 588 Concentration Practicum I 2 cr. Prereq., SW 587, 589; coreq., SW 578. Advanced supervised field work in public and private agencies and institutions.

G 589 Concentration Practicum II 2 cr. Prereq., SW 588; coreq., SW 579. Advanced supervised field work in public and private agencies and institutions.

G 593 Professional Portfolio 1 cr. (R-2) Prereq., foundation courses. Summative and in-depth written analysis of course work and practicum experience.

G 594 Graduate Seminar 3 cr. (R-9) Offered autumn or spring. Prereq., admission to M.S.W. program or consent of instr. In-depth analysis of a current social work issue.

G 595 Special Topics Variable cr. (R-9) Offered autumn and spring. Prereq., admission to M.S.W. program or consent of instr. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

G 596 Independent Study Variable cr. (R-9) Offered autumn or spring. Prereq., admission to M.S.W. program or consent of instr. Work on selected problems by individual students under direct faculty supervision.

G 597 Research Variable cr. (R-9) Offered autumn or spring. Prereq., admission to M.S.W. program or consent of instr. Directed individual graduate research and study appropriate to background and objectives of the student.

Faculty

Professors

- Cynthia Garthwait, M.S.S.W., University of Wisconsin, Madison, 1974 (Chair)
- Janet Finn, Ph.D., University of Michigan, 1995

Associate Professors

- Timothy Conley, Ph.D., Boston College, 2001
- Ryan Tolleson Knee, Ph.D., University of Denver, 1999

Assistant Professors

- Jim Caringi, Ph.D., University of New York, 2007
- Cathryn O'Day, M.S.W., Ph.D., Colorado State University, 2008

Adjunct Assistant Professors

- Doreen Antenor, J.D., The University of Montana, 1996

- Tony Baumgartner, M.S.W., Walla Walla College, 1998
- Michaela Conway, M.S.W., San Diego State University, 1978
- Kerrie Ghenie, M.S.W., Walla Walla College, 2000
- Diane Haddon, M.S.W., Michigan State University, 1977
- Michael Perry, M.S.W., Eastern Washington University, 1991
- Tamara Tolleson Knee, M.S.W., University of Denver, 1994
- Jennifer Walrod, M.P.A., The University of Montana, 2002
- Charlie Wellenstein, M.S.W., Eastern Washington University, 1991

Emeritus Professors

- Mary Birch, M.S.W., Columbia University, 1966
- Frank Clark, Ph.D., University of Oregon, 1969
- Robert Deaton, Ed.D., University of Nevada, Reno, 1980
- Charles Horejsi, Ph.D., University of Denver, 1971
- John Spores, Ph.D., University of Michigan, 1976

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Department of Applied Arts and Sciences

Cathy Corr, Chair

The Department of Applied Arts and Sciences provides instruction in five disciplines: communication, mathematics, psychology, science, and writing. The courses from these disciplines are general education core classes for the Associate of Arts Degree (AA) as well as compose the general education core of Associate of Applied Science Degrees (AAS).

Associate of Arts-A.A. Degree

The Department of Applied Arts and Sciences oversees the Associate of Arts Degree. The Associate of Arts Degree is a general education transfer degree and does not officially include a major or minor course of study. To receive an Associate of Arts degree all students must successfully complete all the general education requirements as described by Montana Board of Regents policy 301.10, Appendix 1. Students preparing for specific baccalaureate degree majors may decide to choose specific general education courses that meet the requirements for a major. Students seeking the AA are not required to sit for the upper-division writing proficiency assessment (WPA). The minimum grade average for the 60 credits required for graduation is 2.00 in all courses taken on the traditional letter grade (A-F) basis. Courses in required general education areas must have a C- minimum.

Students may enter in the autumn or spring semester. Following is a suggested first year course of study. Courses numbered below 100 or with a "D" designation and courses with a "T" suffix on the course number do not count toward the 60 credit requirement or general education course requirements, but do count as financial aid credits.

Course Choices:

First Semester

Appropriate writing course-to be determined by placement score (3 cr)

Appropriate mathematics course-to be determined by placement score (3 cr)

Electives within the general education groups (9 cr)

Second Semester

Continue with writing course requirement (3 cr)

Continue with mathematics course requirement (3 cr)

Electives within the general education groups (9 cr)

Areas of Emphasis within an Associate of Arts Degree

Although the AA does not officially include a major or minor course of study, students may elect to choose classes in a specific area of interest. Advisors within the departments guide this process.

Courses

U = for undergraduate credit only. R after the credit indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Applied Arts and Sciences (AASC)

U 100 Introduction to the University Experience 3 cr. Offered autumn. Introduction to academic life: exposure to campus resources (e.g. library, computer labs, career and student services); exploration of personal goals and motivation; introduction to various academic disciplines; introduction to ASUM and other student groups; exploration of diversity issues, ethical issues, and student accountability; and extensive advising.

U 167H Nature and Society 3 cr. Same as EVST 167H. Offered intermittently, autumn and spring. Prereq., WRIT 101, WTS 101 or ENEX 101. Explores the relationship between ideas about nature and the development of political and social ideas, institutions, and practices in primarily western (Euro-American) society. Course is an elective for students in the 2-year AA and AAS degree programs. Credit not allowed for both AASC 167H and EVST 167H.

U 195T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 196T Independent Study 1-6 cr. (R-6) Offered intermittently.

U 295T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

Communications (COM)

U 150S Interpersonal Communication 3 cr. Offered every term. Focus on communicating and listening more clearly to improve personal and professional relationships. Topics include forms of communication, communication and identity, emotion, conflict, climates, gender, and cultural diversity. Credit not allowed for both COM 150S and COMM 110S.

U 160A Oral Communications 3 cr. Offered every term. Introduction to techniques for preparing and delivering effective presentations as well as constructive criticism. Credit not allowed for both COM 160A and COMM 111A.

U 195T Special Topics Variable cr. (R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 196T Independent Study 1-6 cr. (R-6) Offered intermittently.

U 217A Oral Interpretation of Literature 3 cr. Offered autumn. Introduction orally presenting literature to an audience. Focus is on analyzing and performing prose, drama, poetry, and children's literature to express point of view.

U 242 Argumentation 3 cr. Offered intermittently. Prereq., COM 160A, COMM 111A, or consent of instr. Focus on developing, presenting, evaluating, and responding to written and spoken arguments with an emphasis on critical decision-making. Credit not allowed for both COM 242 and COMM 242.

U 260S Survey of Children's Communication 3 cr. Offered every semester. Focus on communication processes and contemporary communication environments of children and adolescents. Topics include language development and the brain, nonverbal communication development, media, contracting, bullying, and gender.

U 295T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 296T Independent Study 1-6 cr. (R-6) Offered intermittently.

Literature (LIT)

U 110L (WTS 120L) Introduction to Literature 3 cr. Offered each term. Study of how readers make meaning of texts and how texts influence readers. Emphasis on interpreting literary texts: close reading, critical analysis, and effective writing.

U 120L (WTS 121L) Poetry 3 cr. Offered every term. An introduction to the techniques of reading and writing about poetry with emphasis on the lyric and other shorter forms. Credit not allowed for both ENLT 121L, WTS 121L, and LIT 120L.

Mathematics (M)

U 065 (MAT 002D) Prealgebra 3 cr. Offered every term. Prereq., appropriate placement score. Arithmetic and basic algebra skills needed for Introductory Algebra. Topics include integers and rational numbers, decimals and percentages with applications, ratios and proportions with applications, single variable linear equations with applications, introduction to graphing, exponents, factoring, and an introduction to polynomials. Credit does not count toward a certificate or degree. Credit does not count toward Associate of Arts, Associate

of Applied Science, or Baccalaureate degrees.

U 090 (MAT 005D) Introductory Algebra 3 cr. Offered every term. Prereq., M 065 (M 002D) or appropriate placement score. Review of arithmetic principles of integers and rational numbers, linear equations in one or two unknowns, and operations with polynomials and rational expressions. Credit does not count toward an Associate of Arts, Associate of Applied Science, or Baccalaureate degree.

U 095 (MAT100D) Intermediate Algebra 3 cr. Offered autumn and spring. Prereq., M 095 (MAT 005D) or appropriate placement score. Topics include linear equations and systems of linear equations, inequalities, applications and graphing; polynomials; rational expressions and equations; radicals, rational exponents and complex numbers; quadratic equations; introduction to exponential and logarithmic functions. Credit does not count toward Associate of Arts or Baccalaureate degrees.

U 105 Contemporary Mathematics 3 cr. Offered every term. Prereq., M 090 (MAT 005) with a grade of B- or better, or M 095, or appropriate placement score. An introduction to mathematical ideas and their impact on society. Intended for students wishing to satisfy the general education mathematics requirement.

U 111 (MAT 110T) Technical Mathematics 3 cr. Offered autumn and spring. Designed to provide the mathematical background necessary for success in the industrial areas. Topics covered include percent, ratio proportion, formula evaluation, basic algebra and geometry concepts, trigonometry, measurement, statistics, and graphing. markdwns, inventory turnover, and other basic formulas. Credit does not count toward Associate of Arts or Baccalaureate degrees.

U 115 (MAT 117) Probability and Linear Math 3 cr. Offered every term. Prereq., M 090 (MAT 005D) with a grade of B- or better, M 095 (MAT 100D), or appropriate placement score. Systems of linear equations and matrix algebra. Introduction to probability with emphasis on models and probabilistic reasoning. Examples of applications of the material in many fields.

U 121 (MAT 118) College Algebra 3 cr. Offered autumn and spring. Prereq., M 095 (MAT 100D) or appropriate placement score. Intended to strengthen algebra skills. The study of functions and their inverses: polynomial, rational, exponential, and logarithmic functions.

U 122 (MAT 119) College Trigonometry 3 cr. Offered autumn and spring. Prereq., M 121 (MAT 118 or MATH 111) or appropriate placement score. Preparation for calculus based on college algebra. Review of functions and their inverses, exponential and logarithmic functions. Trigonometric functions and identities, polar coordinates and an optional topic such as conic sections or parametric functions.

U 151 (MAT 120) Precalculus 4 cr. Offered autumn and spring. Prereq., M 095 (MAT 100D) or appropriate placement score. Algebraic, trigonometric, exponential/ logarithmic functions of one real variable and their graphs. Inverse functions, complex numbers and polar coordinates. Conic sections.

U 162 (MAT 145) Applied Calculus 4 cr. Offered spring. Prereq., M 151 (MAT 120) or appropriate placement score. Introduction to differentiation and integration of elementary function. Introduction to ordinary differential equations. Emphasis is on applications in technical fields including electronics technology. Graphing calculators used.

U 196T Independent Study Variable cr. (R-6) Offered intermittently.

Psychology (PSYX)

U 100S Introduction to Psychology 4 cr. Offered every term. Introduction to the scientific study of behavior in humans and other animals. Credit not allowed for both PSYC 100S, PSY 100S and PSYX 100S.

U 161S (PSY 110S) Fundamentals of Organizational Psychology 3 cr. Offered autumn and spring. Foundation in the psychological processes that influence behavior of people in work settings.

U 191 (PSY 195T) Special Topics Variable cr. (R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 192 (PSY 196T) Independent Study 1-6 cr. (R-6) Offered intermittently.

U 194T Seminar Work Attitudes 1 cr. Offered spring. Introduction to the working environment and the individual's responsibility to working relationships.

U 230S (PSY 201) Developmental Psychology 3 cr. Offered autumn and spring. Prereq., PSYX 100S. The study of human physical, cognitive and psychosocial development throughout the life span. Content covers major theories, the influence of genetics, and the environment from a chronological aspect.

U 291 Special Topics Variable cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 292 Independent Study Variable cr. Offered every term.

U 294 Seminar/Workshop 1 cr. (R-3) Offered intermittently. Prereq., consent of instr.; coreq., another psychology course. Taken in conjunction with another psychology course to provide additional content and discussion for honors students. Consent of the corequisite

course.

U 298 Internship Variable cr. (R-6) Offered every term. Prereq., consent of department. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the Program department.

Science (SCN)

U 095 Special Topics 1-6 cr. Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 100N Issues in Biology 3 cr. Offered autumn and spring. An introductory course for students with little science background. This course explores several issues relating to human biology such as cancer, drug abuse, population growth, and genetic engineering. Also includes discussions of fundamental biological concepts such as evolution, biodiversity, and basic cell and molecular biology.

U 115 Anatomy 3 cr. Offered Intermittently. Structures of the human body and their basic functions.

U 120T Technical Physics I 4 cr. Offered autumn. Prereq., M 095 (MAT 100 or MATH 100). Introduction to models, measurements, vectors, motion in a straight line, motion in a plane, Newton's laws of motion, application of Newton's laws, and circular motion and gravitation.

U 121T Technical Physics II 4 cr. Offered spring. Prereq., SCN 120T. Introduction to work and energy, impulse and momentum, rotational motion, equilibrium of a rigid body, elasticity, heat, and thermodynamics.

U 150 Nutrition 3 cr. Offered autumn and spring. Nutritional needs throughout the life cycle and measures to assist in the meeting of those needs in health or stress/disease.

U 175N Introduction to Physical Science 3 cr. Offered every term. Prereq., or coreq., M 090 (MAT 005D) (M 095 (MATH 100) suggested). An introduction to the basic principles of physics, chemistry, environmental and earth sciences with emphasis on the scientific method and process. (Suitable for students with little science background).

U 195T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 196T Independent Study Variable cr. (R-6) Offered intermittently.

U 201N Anatomy and Physiology I 4 cr. Offered autumn and spring. Prereq., introductory science course or college-prep high school biology course recommended. Comprehensive knowledge of human form and function necessary for students preparing for health-related professions. Emphasis on structure, function and homeostatic regulation of body systems with presentation of basic concepts in chemistry and microbiology as they relate to human anatomy and physiology. Covers tissues through nervous system. Required, integrated laboratory includes some dissection.

U 202N Anatomy and Physiology II 4 cr. Offered autumn and spring. Prereq., SCN 201N. Continuation of 201N. Comprehensive knowledge of human form and function necessary for students in health-related programs. Emphasis on structure function and homeostatic regulation of body systems with presentation of basic concepts in chemistry and microbiology as they relate to human anatomy and physiology. Covers endocrine through reproductive systems. A cadaver lab is included.

U 220 Human Physiology 4 cr. Offered autumn. Prereq., SCN 201N, 202N. In-depth exploration of principles and clinical consequences of the physiology of selected human organ systems. Building upon basic concepts covered in SCN 201N and 202N, students study membrane functions, neural physiology, nervous system integration, endocrine and peripheral nervous system function and coordination, circulatory, respiratory, renal, and digestive physiology.

U 295T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

Writing Studies (WRIT)

U 095 (WTS 100D) Developmental Writing 3 cr. Offered every term. Prereq., placement or referral by WRIT 101 (WTS 101) instructor. Designed for students who need instruction and practice integrating critical thinking, reading and writing before entering the required first-year writing course. Grading A-F or NC (no credit). Credit does not count toward Associate of Arts or Baccalaureate degrees.

U 101 College Writing I 3 cr. Offered every term. Prereq., WRIT 095 or passing score on placement test. Instruction and practice in both the expository writing and research process. Emphasis on the use of specific techniques of writing to develop style, unity, clarity, and force of ideas, and structure. Students are expected to write without major errors in sentence structure or mechanics. Grading A-F, or NC.

U 121 Introduction to Technical Writing 3 cr. Offered every term. Course assumes a basic computer literacy. Passing score on placement test or consent of instructor. Introduction to technical writing situations with appropriate formats. Emphasis writing with document design and graphic placement introduced. Students are expected to write without major faults in grammar or usage.

U 184A Beginning Creative Writing: Multiple Genre 3 cr. Offered every term. Prereq., WRIT 101 (WTS 101 or ENEX 101) or consent of instr. A beginning writing workshop to explore various types of creative writing with opportunities for students to write, revise and discuss writing techniques that students may wish to explore further in specialized classes.

U 185A Beginning Creative Writing: Fiction 3 cr. Offered intermittently. Prereq., WRIT 101 (WTS 101 or ENEX 101) or consent of instr. A beginning writing workshop focused on the reading, discussion, and revision of students' short fiction. Students also will be introduced to models of fiction techniques. No prior experience in writing short fiction required.

U 186A Beginning Creative Writing: Poetry 3 cr. Offered intermittently. Prereq., WRIT 101 (WTS 101 or ENEX 101) or consent of instr. A beginning writing workshop focused on the reading, discussion, and revision of students' poems. Students also will be introduced to variety of poetic techniques. No prior experience in writing poetry required.

U 191T (WTS 195T) Special Topics Variable cr. (R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 192T (WTS 196T) Independent Study 1-6 cr. (R-6) Offered intermittently.

U 221 (WTS 215) Intermediate Technical Writing 3 cr. Offered intermittently. Prereq., WRIT 121 (WTS 115), WRIT 101 (WTS 101 or ENEX 101), or consent of instr. Continuation of technical writing with emphasis on technical text including editing for technical content, graphic placement, and document design as seen through the eye of the audience. Current critical issues in technical writing are discussed.

U 240E Arguments and Contemporary Issues 3 cr. Offered every autumn and spring. Prereq., WRIT101. Writing-intensive course which examines perspectives on contemporary issues. Emphasis on analysis, evaluation, and synthesis; students construct arguments in response to issues raised in class.

U 291T (WTS 295T) Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 292T (WTS 296T) Independent Study 1-6 cr. (R-6) Offered intermittently.

Department of Applied Computing and Electronics

Thomas Gallagher, Chairman

The Department of Applied Computing and Electronics of The University of Montana College of Technology collaborates with business and industry to prepare graduates to compete in and contribute to a dynamic global society. Students engage in experiential learning embracing technical education, effective communication, problem solving, professionalism, and workplace skills. The department promotes life-long learning to empower students in an ever-changing world. More details on programs available through the department can be found on the web: <http://ace.cte.umt.edu>.

Special Degree Requirements

General education requirements are integrated into the following programs. Refer to the Academic Policies and Procedures section of this catalog for the specific requirements.

Computer Aided Design- Certificate of Applied Science

Thomas Gallagher, Director

The Computer Aided Design program introduces students to graphic communications; computer-aided design and modeling systems; geographic information systems; surveying; written communication; and business practices. Graduates are prepared to pursue entry-level, professional careers as technicians supporting civil engineering firms, surveyors, and land-use planners.

First Year	A	S
BUS 103S Principles of Business	-	3
CRT 111 Fluency in Information Technology	3	-
CRT 182T Computer Aided Design I	2	-
CRT 195 Special Topics: Computer Aided Design II	3	-
CRT 195 Special Topics: Graphics Communication	3	-
CRT 172 Introduction to Computer Modeling	-	3
CRT 175 Geospatial Technologies	-	3
CRT 184 Civil Design Technologies	-	4
HEO 195 Special Topics: Surveying	3	-
M 121 (MAT 118) College Algebra	3	-
WRIT 101 (WTS 101) College Writing I	-	3

Computer Technology-A.A.S. Degree

Students in the Computer Technology program prepare for careers in the field of information technology. The mission of the program is to prepare students to meet the needs of users within an organization and societal context through the selection, creation, application integration, and administration of information technology. The program balances technical expertise with the professional skill set needed in a dynamic society. The degree program allows students to specialize in network management or information systems through program options.

Students are accepted into the program autumn term. Prior to entering the program, students shall demonstrate proficiency in keyboarding and basic computing skills, using word processing, spreadsheets, Internet software, and file management.

The University of Montana College of Technology is a Cisco Regional Training Center and a member of the Computer Technology Industry Association (Comp TIA). Opportunities exist for professional certification from Cisco (CCNA), Microsoft (MCT, MCSA), and Comp TIA (A+, Network+ and Security+).

Network Management Option

The Network Management option provides specialization for supporting computing in a networking environment. Students install, configure, monitor, troubleshoot, and manage network connectivity, server-based computing systems, and intranetworking technologies.

Autumn Entry:

First Year	A	S
BUS 103S Principles of Business	3	-
CRT 111 Fluency in Information Technology	3	-
CRT 112 Operating System Fundamentals	-	3
CRT 121 Introduction to Programming	-	3
CRT 122E Ethics and Information Technology	-	3
CRT 151 Networking Basics	3	-
CRT 152T Routers and Router Basics	-	3
CRT 172 Introduction to Computer Modeling	-	3
M 115 (MAT 117) Probability and Linear Mathematics	3	-
WRIT 101 (WTS 101) College Writing I	3	-
Total	15	15
Second Year	A	S
COM 160A Oral Communications	-	3
CRT 210T Advanced Operating Systems	3	-
CRT 215T Server Technologies	3	-
CRT 216T Network Infrastructure	-	3
CRT 222T Security Seminar	-	3
CRT 231 Object-Oriented Programming	3	-
CRT 251T Switching Basics and Intermediate Routing	3	-
CRT 252T WAN Technologies	-	3
CRT 285T PC Hardware Support	3	-
CRT 289T Professional Certification	-	1
CRT 290T Computer Technology Internship	-	2
Total	15	15

Information Systems Management Option

The Information Systems Management option provides specialization in acquiring and supporting the software applications and hardware used in organizations. Students analyze, design, develop, implement, and support windows-based applications, database applications, and web-based applications. Business process is modeled and requirements defined for information technology resources.

Autumn Entry:

First Year	A	S
BUS 103S Principles of Business	3	-
COM 160A Oral Communications	3	-

used in a wide range of electronic equipment including computers and communication equipment. Training includes working knowledge of direct and alternating current theory, semiconductor circuits, instrumentation, automatic controls, data communications, computerized communication links, and operational amplifiers. Students become familiar with robotics, electronic communications theory, and modes of RF communications.

Students are awarded the Associate of Applied Science degree upon successful completion of the program. Students may enter autumn semester only.

First Year	A	S
CRT 111 Fluency in Information Technology	3	-
CRT 112 Operating Systems Fundamentals	-	3
EET 111 Basic Electronics	4	-
EET 112 Electronics Lab I	3	-
EET 113 Circuits Kit	1	-
EET 121 Semiconductors	-	4
EET 122 Electronics Lab II	-	3
EET 123 Amplifier Kit	-	1
M 151 (MAT 120) Precalculus	4	-
M 162 (MAT 145) Applied Calculus	-	4
PSYX 161S (PSY 110S) Fund of Organizational Psychology	-	3
WRIT 121 (WTS 115) Introduction to Technical Writing	3	-
Total	18	18
Second Year	A	S
EET 227 Digital Electronics	4	-
EET 234T Automatic Controls	4	-
EET 240T Robotics	-	3
EET 241T Instrumentation	-	3
EET 242T Electronics Lab III	-	3
EET 260 Data Communications	-	3
EET 270T Wireless Communications	4	-
EET 280T Electronics Capstone	-	2
SCN 120T-121T Technical Physics I, II	4	4
Total	16	18

Energy Technology-A.A.S. Degree

Ashley Preston, Director

Students in the Energy Technology program are introduced to the full suite of energy sources and technologies. Graduates are general practitioners equipped with skills in: design, installation, and maintenance of diverse energy technologies and systems; sales, operations, and management; regulatory compliance; basic electricity and power systems; energy storage and distribution; site assessment; basic energy economics; efficiency and conservation strategies; project management. Students may enter the program autumn or spring term. Further information can be found at <http://ace.cte.umt.edu/energy/>

First Year	A	S
BUS 160S Issues in Sustainability	3	-
CAR 235 Building Energy Conservation	-	3
CRT 172 Introduction to Computer Modeling	3	-
EET 111 Basic Electronics	-	4
EET 112 Electronics Lab I	-	3
M 121 College Algebra	-	3
NRG 101 Introduction to Energy Systems I	3	-
NRG 102 Introduction to Energy Systems II	-	3
SCN 175N Integrated Physical Sciences	3	-
WRIT 101 (WTS 101S) College Writing I	3	-
Total	15	16
Summer Session	Credits	
NRG 191 Energy Practicum (60 Hours)	2	
Total	2	

Second Year	A S
BUS 103S Principles of Business	- 3
CAR 209T Project Management	3 -
EVST 101 Environmental Science	3 -
M 122 College Trigonometry	3 -
NRG 213 Power Systems Technology	3 -
NRG 290 Energy Internship	- 2
NRG 295 Special Topics: Energy Storage and Distribution Systems	- 3
Select 5 Energy Electives (see list below)	6 9
Total	18 17

Energy Elective Requirement: Students must select a total of 5 energy related electives or 4 energy related electives and 1 general elective.

Energy-Related Electives:

- GEO191 Special Topics: Fossil Fuels (3 cr)
- NRG 241 Alternative Fuels (3 cr)
- NRG 242 Solar and Wind and Energy Systems (3 cr)
- NRG 295 Special Topics: Fuel Cells (3 cr)
- NRG 295 Special Topics: Bioenergy (3 cr)
- NRG 295 Special Topics: Fundamentals of Photovoltaic Design and Installation (3 cr)
- NRG 295 Special Topics: Introduction to Geothermal Energy Systems (3 cr)

General Electives

- BUS 135T Business Law (3 cr)
- BUS 250T Entrepreneurship (3 cr)
- CAR 236T Building for Solar Energy (3 cr)
- CAR 240T Alternative Construction Materials (3 cr)
- COM 150S Interpersonal Communications (3 cr)
- COM 160A Oral Communications (3 cr)
- CRT 111 Fluency in Information Technology (3 cr)
- CRT 182 Computer Aided Design and Drafting (2 cr)
- EET 234T Automatic Controls (4 cr)
- EET 241T Instrumentation (3 cr)
- NRG 295 Special Topics: Energy Choices and Sustainability (3 cr)
- PSYX 162 Organizational Psychology (3 cr)
- SCN 120T Technical Physics I* (3 cr)
- SCN 121T Technical Physics II* (3 cr)

*Completion of both can be considered in lieu of SCN 175N Integrated Physical Science (3 cr)

Accounting Technology-A.A.S. degree

Computer Support Option

Students interested in a career which prepares them to work as accounting technicians with a specialty in information technology may select the Accounting Technology, Computer Support option. This program is detailed in the Business Technology Department section of this catalog.

Courses

Computer Applications (CAPP)

U 115 (CRT 115T) MS Word 3 cr. Offered autumn and spring. Prereq., CAPP 134 (CRT 108). Analysis of the concepts of advanced word processing document production underlying mastery of the software. Business-related application projects utilizing critical thinking included. Speed and timing component to increase skills essential for employment.

U CAPP 120 (CRT 100) Introduction to Computers 2 cr. Offered autumn and spring. Introduction to computer terminology, hardware, and software, including wire/wireless communications and multimedia devices. Students utilize word processing, spread sheet, database, and presentation applications to create projects common to business and industry in a networked computing environment. Internet research, email usage, and keyboarding proficiency are integrated.

U CAPP 134 (CRT 108) Basic MS Word 2 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or basic computer experience and consent of instr. Preparation of business forms, correspondence, mail merges, columnar projects, and reports using up-to-date software.

Business related application projects, graphics, and printer operation are included.

U CAPP 156 (CRT 180T) MS Excel 3 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or 103T; and M 090 (MAT 005D) or M 095 (MAT 100D). Emphasis on the use of workbooks and sheets to solve business problems. Includes projects relating to data and graphs/charts.

Computer Technology (CRT)

U 111 Fluency in Information Technology 3 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or demonstrated computing experience. Introduces the skills and concepts of information technology, both from practical and a more theoretical point of view. During lectures and interactive computer labs, students will explore a wide range of digital and information technologies, including common PC applications, networking, databases, privacy, and security. Credit not allowed for both CRT 111 and CS 111.

U 112 Operating System Fundamentals 3 cr. Offered spring. Prereq. CAPP 120 (CRT 100) or demonstrated computing experience. Introduction to operating system concepts through the use of contemporary software. Emphasizes file system management, networking, installation, maintenance, management, and disaster recovery practices using both the command interpreter and graphical user interface.

U 121 Introduction to Programming 3 cr. Offered autumn and spring. Prereq., M 095 (MAT 100D) and demonstrated computing experience. An introduction to object-oriented programming using an even-driven paradigm. Basic concepts of control structures, data handling, documentation, and error control. Fundamentals of algorithm design and structured software development.

U 122E Ethics and Information Technology 3 cr. Offered spring. Prereq., WRIT 101 (WTS 101). Exploration of ethical issues in the field of computing. Skills needed to identify and analyze various ethical concerns. Standard ethical concepts and theories, methods of ethical analysis. Strong emphasis on practical application of the ethical process.

U 151 Networking Basics 3 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or demonstrated computer experience. Introduction to networking field including terminology; protocols; local-area and wide-area networks; the OSI model; topologies; IP addressing; cabling and cabling tools; routers and router programming; Ethernet and network standards; and wireless technologies.

U 152T Routers and Routing Basics 3 cr. Offered spring. Prereq., CRT 151 and CRT 112T or consent of instr. Covers router theory and technologies including configurations, IOS software management, routine protocol configuration, TCP/IP, access-lists and introduction to LAN switching.

U 172 Introduction to Computer Modeling 3 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or demonstrated computing experience. Problem solving and data modeling using computer productivity software. Emphasis using spreadsheets and databases for data analysis. Formal presentation of results. Credit not allowed for both CRT 172 and CS 172.

U 175 Geospatial Technologies 3 cr. Offered Spring. Basics of geospatial technologies; remotely sensed imagery, GIS, and GPS and how each of the individual areas can be used together to analyze spatial datasets. Students will explore a wide range of spatial data and will learn to apply these data sets to real-world solutions.

U 181T Introduction to Database Software 2 cr. Offered intermittently. Prereq., CAPP 120 (CRT 100). Basics of using a current database software package to solve business problems.

U 182T Computer Aided Design and Drafting 2 cr. Offered autumn. Prereq., CAPP 120 (CRT 100) or demonstrated computer experience. An introduction to computer aided design and drafting software for production of drawings and plans for architecture and engineering systems. Fundamentals of two dimensional drafting and drawing management for professional design.

U 184 Civil Design Technologies 4 cr. Offered spring. prereq. CRT 182T. Introduces students to computer aided design software for common survey and engineering design and drafting applications. Topics include collection of survey data; the coordinate geometry system; surfaces; subdivision and land planning; road design and corridor modeling; utilities; site grading and drainage; mapping; and 3D visualization.

U 188T Computers and Law 3 cr. Offered autumn. Prereq., CAPP 120 (CRT 100) and LEG 185T. Intermediate concepts of computer systems, operating systems, graphical environments, electronic mail, Internet, and file management. A variety of applications including word processing, spreadsheet, database, presentation, and law-related software are included.

U 195T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 196T Independent Study Variable cr. (R-6)

U 203 Systems Analysis 3 cr. Offered spring. Prereq., CRT 172. Analysis of the system development life cycle. Emphasis on planning, analyzing, designing, implementing and supporting information systems to meet business requirements. Covers feasibility studies, time and cost estimates, modeling tools, design tools, implementation and support strategies. A simulated business design project will be developed.

U 205T Food Service Management Computer Applications 2 cr. Offered spring. Prereq., CAPP 120 (CRT 100). Introduction to computerized applications relevant to the food service industry. Includes spreadsheet, recipe management and word processing software;

appropriate industry reports, create menus and fliers; import, export and scale recipes; analyze nutrition; and calculate food cost.

U 209T Project Management 3 cr. Offered intermittently. Prereq., CRT 172. Investigation of topics in project management including scope, definition, risk, procurement and the RFP. Management of time, cost, quality, and human resources. Concepts are reinforced with PM software.

U 210T Advanced Operating Systems 3 cr. Offered autumn. Prereq., CRT 112T, 151. In-depth study of a secure, multi-user, client-based network operating system. Topics include installation, administration of resources, performance, network services, and security.

U 215T Server Technologies 3 cr. Offered autumn. Prereq., CRT 112T, CRT 151. Server technologies commonly used in local area networking. Topics include installation, administration, storage, application services, network services, security, reliability, and availability.

U 216T Network Infrastructure 3 cr. Offered spring. Prereq., CRT 210T. Principles and implementation of enterprise networking services. Topics include Protocol Binding, DNS, DHCP, WINS, Remote Access, IP Routing, IP Security, Network Address Translation, and Certificate Services.

U 222T Security Seminar 3 cr. Offered spring. Prereq., CRT 210T. Examination of general information technology security concepts. Topics include access control, authentication, attack methods, remote access, web security, wireless networks, cryptography, internal infrastructure security, and external attacks. Security procedures, organizational policies, risk management and disaster recovery addressed.

U 231 Object-Oriented Programming 3 cr. Offered autumn. Prereq., CRT 121. Design and implementation of software using College of Technology Department of Applied Computing and Electronics 223 object-oriented programming practices. The class framework is used to apply the object-oriented techniques of encapsulation, polymorphism, and inheritance.

U 251T Switching Basics and Intermediate Routing 3 cr. Offered autumn. Prereq., CRT 152T. Covers router configurations including advanced IP addressing techniques, variable length subnet masking, intermediate routing protocols, Ethernet switching, virtual LANs, spanning-tree protocol, and VLAN trucking protocol.

U 252T WAN Technologies 3 cr. Offered spring. Prereq., CRT 251T. Project-based course in wide-area networking including advanced IP addressing techniques, network address translation, port address translation, DHCP, WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management, and introduction to optical networking.

U 255T Advanced Routing 3 cr. Offered intermittently. Prereq., consent of instr. Analysis, design, and implementation of inter-network routing techniques. Topics include scalability, routing protocols, optimization, and security.

U 256T Remote Access 3 cr. Offered intermittently. Prereq., consent of instr. Analysis, design, and implementation of remote access technologies including connectivity, access control, bandwidth utilization, fault tolerance, redundancy, and integrity.

U 257T Multilayer Switching 3 cr. Offered intermittently. Prereq., consent of instr. Analysis, design, and implementation of reliable, scalable, multiplayer switched LANs. Topics include VLANS, switching protocols, routing, redundancy, multicasting, quality of service, security, and transparency.

U 258T Network Troubleshooting 3 cr. Offered intermittently. Prereq., consent of instr. Network troubleshooting using baselines, configuration documentation, and a building-block approach through analysis of each layer in the OSI networking model.

U 260 Digital Publishing and Design 3 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or 103T or consent of instr. A comprehensive foundation of layout and design principles to integrate digital media essential for effective print-based and web-based business publications.

U 263 Web Design and Development 3 cr. Offered autumn and spring. Prereq., CAPP 120 (CRT 100) or consent of instr. Provides a background and foundation skills required for designing and implementing Web sites for public and private organizations. Marketing and design techniques are applied using state-of-the-art software.

U 270 C++ Programming 3 cr. Offered intermittently. Prereq., CRT 121. Object oriented programming using C++. Implementation of structured programming concepts along with construction of classes to create data types for defining objects.

U 275 Database Design and Implementation 3 cr. Offered autumn. Prereq., CRT 172 or consent of instr. Relational database design including: requirements analysis, data structure, entity relationships, normalization, relational algebra and integrity. Physical implementation focusing on data storage; retrieval and modification; concurrency; optimization; security; SQL; and XML.

U 285T PC Hardware Support 3 cr. Offered autumn. Prereq., CRT 103T, CRT 112T. In-depth study of personal computer hardware. Focus on field replaceable components. Topics include: storage devices, processors, system boards, memory, ports, cabling, power supplies, multimedia devices, printers, and troubleshooting.

U 289T Professional Certification 1 cr. Offered spring. Prereq., consent of instr. Review objectives of an information technology industry-based professional certification. Certification objectives, preparation strategies, and exam strategies included. Course can be repeated for different industry-based professional certifications.

U 290T Computer Technology Internship 2 cr. Offered autumn and spring. Prereq., last semester in program, minimum of “C” in all CRT courses, and approval of program director. Not open to non-majors. On-the-job training in positions requiring information technology competencies. This experience increases students' skills, prepares them for initial employment, and increases occupational awareness and professionalism. Students work a minimum of six hours each week at an approved site and attend a weekly one-hour seminar.

U 295T Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 296T Independent Study 1-6 cr. (R-6) Offered intermittently.

Electronics Technology (EET)

U 111 Basic Electronics 4 cr. Offered autumn. Study of current flow, direct current circuits, alternating current circuits, and concepts of power. The introduction of time-varying currents and impedances using circuit analysis and problem solving techniques.

U 112 Electronics Lab I 3 cr. Offered autumn. Coreq., EET 111. The use of basic electronic test instruments and troubleshooting. Building circuits using resistive, capacitive and inductive components.

U 113 Circuits Lab 1 cr. Offered autumn. Coreq., EET 111. Covers proper techniques of soldering and tool usage. Electronic technical language, hands on troubleshooting skills and basic electronic measurements are involved.

U 121 Semiconductors 4cr. Offered spring. Prereq., EET 111, 112. Coverage of diode, bipolar transistors and field effect transistor circuits used in electronic applications. The study and analysis of the components and circuits used in semiconductor electronics and an introduction to operational amplifiers.

U 122 Electronics Lab II 3 cr. Offered spring. Coreq., EET 121. Bread-boarding, troubleshooting and measuring the electronic characteristics of diodes, bi-polar transistors, JFETS and operational amplifiers. The impact of impedance matching, filtering and power effects on stages of electronic circuits will be covered.

U 123 Amplifier and Power Supply Lab 1 cr. Offered spring. Coreq., EET 121. An audio amplifier and dual regulated power supply will be built throughout the semester.

U 195T Special Topics 1-6 cr. (R-6) Offered Intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 227 Digital Electronics 4 cr. Offered autumn. Prereq., EET 103. Explores digital electronic circuits and devices that make up a computer system. Topics include binary and hexadecimal number systems, Boolean algebra and digital logic theory, simple logic circuits, combinational logic, and sequential logic. Also covered is the analog-to-digital and digital-to-analog interfaces between a digital system and the real (analog) world. Includes hands-on labs.

U 232 Microprocessors 4 cr. Offered spring. Prereq., EET 227. Explores microprocessor architecture, design, and operations; machine language and assembly language programming; hardware input/output interfacing; and design applications. Includes hands-on labs incorporating an individual student trainer based on the Intel 8085A microprocessor.

U 234T Automatic Controls 4 cr. Offered autumn. Prereq., EET 227. Explores the theory, terminology and components used in automatic control of industrial machines and processes. Uses the servomechanism as a representative control system to analyze open-loop, closed-loop, proportional, integral, and differential control strategies. The use of transducers and computers in automatic control systems in the industrial control setting is emphasized.

U 240T Robotics 3 cr. Offered spring. Prereq. or coreq., EET 232, EET 234T or consent of instr. Explores physical and operating characteristics of a robot. Topics include robot configurations, power supplies, control systems, end effectors, sensors, stepper motors and stepper controls. Robot programming also is covered and a typical robot is programmed to perform repetitive actions. Includes hands-on labs.

U 241T Instrumentation 3 cr. Offered spring. Prereq., EET 227T. The study and analysis of industrial measuring and process control instrumentation in both analog and digital form. Proper selection, use and interpretation of measurement equipment and data.

U 242T Electronics Lab III 3 cr. Offered spring. Coreq., EET 241T Bread-boarding, building, repairing and troubleshooting electronic circuits using the equipment normally found in an electronic shop. Correlating measurement information in solving electronic problems.

U 260 Data Communications 3 cr. Offered autumn. Prereq., EET 103T. Explores the principles, applications, and theory of data communication systems. Topics include communication concepts and terminology, analog and digital channel characteristics, signaling techniques for analog and digital data, communication codes, transmission media, and standards and protocols for various data communication systems including computer networks, and the public switched telephone network. Includes hands-on labs.

U 270T Wireless Communications 4 cr. Offered autumn. Prereq., EET 103T. Explores audio and radio frequency (RF) circuits. Topics include AM and FM signal modulation and demodulation, RF transmitters, RF receivers, RF amplifiers, audio amplifiers, oscillators, mixers, and antennas. Includes hands-on labs.

U 280T Electronics Capstone 2 cr. Offered spring. Prereq., EET 227T. Completion of project prototypes. Includes comprehensive final project from conception to market.

U 295T Special Topics 1-6 cr. (R-6) Offered Intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

Energy Technology (NRG)

U 101 Introduction to Energy Systems I 3 cr. Autumn only. A survey of traditional energy systems and technologies. Introduces conventional primary energy sources--coal, oil, gas, nuclear--and examines the technologies used to capture, convert, distribute, store, and utilize these energy sources. Consideration is given to physical and engineering aspects, as well as economic, social environmental, and political factors that determine the sustainability of these sources.

U 102 Introduction to Energy Systems II 3 cr. Prereq., NRG 101 or consent of instructor. Spring only. Same as CCS 102. A survey of renewable energy systems and technologies. Addresses physical and technical aspects of wind, solar, geothermal, hydro, tidal, biological, and wave energy systems. Consideration is given to engineering, economic, social, environmental, and political factors that determine implementation and sustainability. Credit not allowed for both NRG 102 and CCS 102.

U 191 Practicum 2 cr. Offered summer only. Prereq., consent of instructor. Same as CCS 191. The practicum provides students with a supervised field experience. Students will gain hands-on experience with energy specific technologies. This opportunity increases students' occupational awareness and professionalism.

U 195 Special Topics 1-6 cr (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 196 Independent Study 1-6 (R-6) Offered intermittently.

U 213 Power Systems Technology 3 cr. Autumn only. A review of the principles of electricity, magnetism, and transformer action; the application of these principles in the operation of single-phase and three-phase ac/dc motors, alternators, and generators; and the control methods for these electrical devices.

U 241 Alternative Fuels 3 cr. Autumn only. Identifies alternative fuel sources; explores fuel characteristics; identifies and evaluates the infrastructure required to produce, store, distribute, and use them; discusses emission and conversion efficiencies; assesses social, environmental, and economic impacts.

U 242 Solar and Wind Systems 3 cr. Spring only. Same as CCS 242. Introduction to the fundamentals of solar and wind energy for the design and installation of solar and wind systems. Includes an overview of the physics and chemistry of the resource and the technology, and will prepare students for a career in renewable energy or for installing a renewable energy system on their own home. Credit not given for NRG 242 and CCS 242.

U 290 Internship 2 cr. Offered spring. Consent of instructor required. Same as CCS 290. Students complete a field experience at an energy-related site or in an energy-related industry. A series of career development seminars and activities related to the field experience are completed in parallel.

U 295 Special Topics 1-6 cr. (R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

U 296 Independent Study 1-6 cr. (R-6) Offered intermittently.

Department of Business Technology

- [Special Degree Requirements](#)
- [Courses](#)

Brian Larson, Chair

The Business Technology Department of The University of Montana College of Technology collaborates with business and industry to prepare graduates to compete in and contribute to a dynamic global society. The department attracts and retains skilled faculty with the professional experience and theoretical background to utilize diverse instruction which reflects current and emerging business practices. Faculty actively engage student in the learning process by integrating experiential technical education and empowering students to adapt to an ever-changing world.

Students may choose from six Associate of Applied Science degree programs and four Certificate of Applied Science programs. Degree programs include Accounting Technology with an option in Computer Support; Administrative Management; Food Service Management; Medical Information Technology with options in Health Information Coding Specialty, and Medical Administrative Assisting; Paralegal Studies; and Management with options in Entrepreneurship, and Sales and Marketing. Certificate of Applied Science programs include Culinary Arts, Customer Relations, Medical Reception, and Sales and Marketing.

Students may attend classes on U of M College of Technology East and UM Mountain campuses. Programs may contain day, evening and weekend classes.

Special Degree and Certificate Requirements

General education requirements are integrated into the following programs. Refer to the Academic Policies and Procedures section of this catalog for the specific requirements.

Accounting Technology-A.A.S. Degree

Lisa Swallow, Director

Almost all organizations need either in-house financial staff or outside bookkeeping/accounting services to aid with financial data compilation and reporting. Bookkeepers and accountants maintain financial records and often participate in strategic planning and other fiscal decisions. Graduates work in small businesses as full charge bookkeepers or large businesses as members of accounting staffs. They are required to communicate extensively with vendors, clients, and employees and are often key players in business projections, cash forecasting, and budgeting. This program provides students the marketable skills for employability in a variety of organizations including service, retail, non-profit, governmental, and accounting firms. Program graduates use technology to gather, compile and analyze data. They communicate budgetary and accounting information to non financial colleagues and managers. Students considering this program should be analytical, detail-oriented, and enjoy using current technology.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Autumn Entry:

	First Year	A S
ACTG 101(ACC 132T) Accounting Procedures I		4
ACTG 201 (ACC 133T) Principles of Financial Accounting		4
ACTG 180 (ACC 134T) Payroll Accounting Applications		- 3
BUS 103S Principles of Business		- 3
BUS 135T Business Law		- 3
BUS 160S Issues in Sustainability		3 -
CAPP 120 (CRT 100) Introduction to Computers		2 -
CAPP 156 (CRT 180T) MS Excel		- 3
M 115 (MAT 117) Probability & Linear Math		3 -
WRIT 101 (WTS 101) College Writing I		3 -
Total		15 16
	Second Year	A S
ACTG 215 (ACC 232T) Foundations of Government and Not for Profit Accounting		- 3
ACTG 202 (ACC 234T) Principles of Managerial Accounting		3 -
ACTG 211 (ACC 236T) Income Tax Fundamentals		4 -
ACTG 250 (ACC 250T) Accounting Capstone		- 4
ACTG 291 (ACC 195T) Financial Planning		3
ACTG 298 (ACC 290T) Accounting Internship		- 2
COM 160A Oral Communications		- 3
CRT 172 Introduction to Computer Modeling		3 -
ECNS 201S (ECON 111S) Principles of Microeconomics		3 -
WRIT 240E (WTS 240) Argument and Contemporary Issues		- 3
Total		16 15

Computer Support Option

This option provides students with a technical background in computer hardware, operating systems, Internet technologies, networking/telecommunications, and application software. In addition to accounting technician training, students selecting this option will be prepared to manage and maintain local area networks and install, maintain and troubleshoot software. They will be trained to configure PC hardware as well as to utilize and secure various operating systems.

Students considering the rigorous program should be analytical, technology-oriented and enjoy detail. Upon successful completion of the A.A.S. - Accounting Technology with Computer Support Option, the student will also be awarded a Computer Technician Certificate and will have the opportunity to complete an industry-based certification exam.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Autumn Entry:

First Year	A	S
ACTG 101(ACC 132T) Accounting Procedures I	4	
ACTG 201 (ACC 133T) Principles of Financial Accounting	-	4
ACTG 180 (ACC 134T) Payroll Accounting	-	3
BUS 103S Principles of Business	3	-
CRT 111 (CRT 103T) Fluency in Information Technology	3	-
CRT 112 Operating System Fundamentals	-	3
CRT 151T Networking Basics	-	3
CAPP 156 (CRT 180T) MS Excel	-	3
M 115 (MAT 117) Probability and Linear Math	3	-
WRIT 101 (WTS 101) College Writing I	3	-
Total	16	16
Second Year	A	S
ACTG 202 (ACC 234T) Principles of Managerial Accounting	3	-
ACTG 211 (ACC 236T) Income Tax Fundamentals	4	-
ACTG 250 Accounting Capstone	-	4
ACTG 298 (ACC 290T) Accounting Internship	-	2
COM 160A Oral Communications	3	-
CRT 121 Introduction to Programming	-	3
CRT 122E Ethics and Information Technology	-	3
CRT 172 Introduction to Computer Modeling	-	3
CRT 210T Advanced Operating Systems	3	-
CRT 285T PC Hardware Support	3	-
CRT 289T Professional Certification A+	-	1
Total	16	16

Administrative Management-A.A.S. Degree

Cheryl Galipeau, Director

The Administrative Management Program allows students to advance the career proficiencies acquired in the Customer Relations certificate program by earning an Associate of Applied Science Degree. The Administrative Management program prepares graduates to meet the administrative and information needs of business and industry. Students gain proficiency in computer, management, and information technologies. They complete an academic component to gain an understanding of professional responsibilities in our global society. Graduates of this program become vital members of executive teams with the ability to assume supervisory, organizational, and communication roles in the coordination of administrative services. An Associate of Applied Science Degree in Administrative Management opens opportunities for graduates in a variety of business settings.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Autumn Entry:

First Year	A	S
BUS 103S Principles of Business	3	-
BUS 106T Records and Information Management	2	-
BUS 135T Business Law	-	3
BUS 140T Customer Service	-	4
CAPP 120 (CRT 100) Introduction to Computers	2	-
CAPP 134 (CRT 108) Basic MS Word	-	2
CAPP 156 (CRT 180T) MS Excel	-	3
COM 150S Interpersonal Communications	-	3
HMR 110T Introduction to Public Relations	3	-
M 115 (MAT 117) Probability and Linear Math	3	-
WRIT 121 (WTS 115) Introduction to Technical Writing	3	-

Total	16 15
Second Year	
	A S
ACTG 100 (ACC 131T) Essentials of Accounting	4 -
BUS 240T Administrative Support for the Automated Office	2 -
BUS 243T Psychology of Management and Supervision	4 -
CAPP 115T MS Word	3 -
COM 160A Oral Communications	- 3
CRT 172 Introduction to Computer Modeling	3 -
CRT 260 Digital Publishing and Design	- 3
CRT 263 Web Design and Development	- 3
HMR 290T Administrative Management Internship	- 2
WRIT 240E (WTS 240) Argument and Contemporary Issues	- 3
Total	16 14

Customer Relations-Certificate of Applied Science

Cheryl Galipeau, Director

The Customer Relations program provides students with the skills to promote excellent customer relations in business settings. Courses related to the service industry, service-level decisions, formulation of service policies, customer service management, and staff development are included. Students gain knowledge of customer care, effective communication, and the importance of public relations to promote a positive company image. Students develop an understanding of challenges and conflicts while servicing both internal and external customers. Emphasis in business, computers, and psychology provide a solid background for customer relations positions in the current business environment.

A Certificate of Applied Science is awarded for successful completion of the program.

Students entering autumn semester may complete the program in two semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Autumn Entry:

First Year		A S
BUS 103S Principles of Business	3 -	
BUS 106T Records and Information Management	2 -	
BUS 135T Business Law	- 3	
BUS 140T Customer Service	- 4	
CAPP 120 (CRT 100) Introduction to Computers	2 -	
CAPP 134 (CRT 108) Basic MS Word	- 2	
CAPP 156 (CRT 180T) MS Excel	- 3	
COM 150S Interpersonal Communications	- 3	
HMR 110T Introduction to Public Relations	3 -	
M 115 (MAT 117) Probability and Linear Math	3 -	
WRIT 121 (WTS 115) Introduction to Technical Writing	3 -	
Total	16 15	

Culinary Arts-Certificate of Applied Science

Tom Campbell, Director

The Bureau of Labor Statistics indicates the hospitality field is America's number one retail employer and predicts its growth will increase 30 percent over the next two years. Students entering the Culinary Arts Certificate program or Food Service Management degree program prepare for careers in the hospitality industry. Students develop skills to seek employment in hotels, restaurants, resorts, casinos, clubs, catering, and corporate dining. Culinary careers encompass hospitality management, sales, product development, or entrepreneurship. To meet the growing demand of the hospitality industry, two program options are available.

Students may earn a Culinary Arts Certificate of Applied Science or a Food Service Management Associate of Applied Science degree.

The Culinary Arts program is two semesters and provides an introduction to the field of culinary arts. Students prepare for an entry-level position in the expanding and challenging food service industry. This program incorporates comprehensive hands-on learning experiences complemented by supportive courses designed to prepare students for a wide range of career opportunities. This program allows a seamless transition into the Food Service Management degree.

Students are awarded a Certificate of Applied Science after successfully completing the program.

Students may enter the Culinary Arts certificate program autumn semester and early application is encouraged.

Autumn Entry:

First Year	A	S
CAPP 120 (CRT 100) Introduction to Computers	2	-
COM 150S Interpersonal Communication	3	-
CUL 151T Introduction to Food Service Industry	5	-
CUL 175T Food Service Sanitation	2	-
FSM 180T Nutritional Cooking	-	3
M 115 (MAT 117) Probability and Linear Math	3	-
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	-	3
WRIT 121 (WTS 115) Introduction to Technical Writing	3	-

Food Station Experience from following courses:

CUL 156T Dining Room Procedures		
CUL 157T Pantry and Garde-Manger		
CUL 158T Short Order Cookery		
CUL 160T Soups, Stocks, and Sauces		
CUL 161T Meats and Vegetables		
CUL 165T Baking and Pastry	-	10
Total	18	16

Food Service Management-A.A.S. Degree

Tom Campbell, Director

The Food Service Management program culminates in an Associate of Applied Science Degree. This program combines theory, practical training, and industry experience to prepare students for entry-level and management positions in the diverse and dynamic hospitality industry. The degree program is designed to continue principles taught in the culinary arts certificate program. The spectrum of learning is expanded to include more in-depth professional studies thereby enhancing employment options. Accreditation by the American Culinary Federation ensures graduates' eligibility for certification as an ACF "Certified Culinarian".

Technical subject areas include introduction to the industry, basic baking, patisserie, cost control, dining room service, garde manger, nutritional cooking, fundamental cooking principles, short order cookery, a la carte stations, menu planning, supervised internship, and the recognized sanitation certificate awarded by the National Restaurant Association Educational Foundation.

The Associate of Applied Science degree is awarded upon successful completion of the program.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Autumn Entry :

First Year	A	S
CAPP 120 (CRT 100) Introduction to Computers	2	-
COM 150S Interpersonal Communication	3	-
CUL 151T Introduction to Food Service Industry	5	-
CUL 175T Food Service Sanitation	2	-
FSM 180T Nutritional Cooking	-	3
M 115 (MAT 117) Probability and Linear Math	3	-
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	-	3
WRIT 121 (WTS 115) Introduction to Technical Writing	3	-

Food Station Experience from following courses:

CUL 156T Dining Room Procedures		
CUL 157T Pantry and Garde-Manger		
CUL 158T Short Order Cookery		
CUL 160T Soups, Stocks, and Sauces		
CUL 161T Meats and Vegetables		

BUS 290T Management Internship	2 -
COM 160A Oral Communications	- 3
CRT 260 Digital Publishing and Design	3 -
CRT 263 Web Design and Development	- 3
ECNS 201S (ECON 111S) Principles of Microeconomics	3 -
WRIT 240E (WTS 240E) Argument and Contemporary Issues	- 3
Total	15 18

Sales and Marketing Option

Students selecting the Sales and Marketing option combine the technical sales and promotional related courses as a foundation for seeking middle to advanced positions in the sales and marketing field. Students will be required to complete sales presentations using appropriate techniques applying consultative and negotiation selling skills. Students will study and demonstrate effective sales techniques, plan and implement effective visual displays and presentations, and develop strong record keeping skills and management of accounts. Additional emphasis in computer skills, accounting, and technical writing provide students the needed edge for this competitive career.

An Associate of Applied Science degree is awarded to students successfully completing the program.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Autumn Entry:

First Year	A S
ACTG 101 (ACC 132T) Accounting Procedures I	4
ACTG 201 (ACC 133T) Principles of Financial Accounting	4
BUS 109T Visual Merchandising and Display	- 3
BUS 112T Professional Sales	2 -
BUS 113T Psychology of Selling	- 3
BUS 125T Principles of Marketing	3 -
CAPP 120 (CRT 100) Introduction to Computers	2 -
CRT 172 Introduction to Computer Modeling	- 3
HMR 110T Introduction to Public Relations	- 3
M 115 (MAT 117) Probability and Linear Math	3 -
WRIT 101 (WTS 101) College Writing I	3 -
Total	17 16

Second Year	A S
ACTG 180 (ACC 134T) Payroll Accounting	3 -
BUS 135T Business Law	- 3
BUS 224T Advertising and Promotion	- 3
BUS 243T Psychology of Management and Supervision	- 4
BUS 290T Management Internship	2 -
COM 160A Oral Communications	3 -
CRT 260 Digital Publishing and Design	3 -
CRT 263 Web Design and Development	- 3
ECNS 201S (ECON 111S) Principles of Microeconomics	3 -
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	3 -
WRIT 240E (WTS 240E) Argument and Contemporary Issues	- 3
Total	17 16

Sales and Marketing-Certificate of Applied Science

Brian Larson, Director

Students in the Sales and Marketing program are trained in sales and supportive tasks relating to retail or wholesale organizations. They study the application of the latest counselor selling techniques to assist clients in meeting needs. The curriculum also involves marketing activities, bookkeeping functions, and merchandising skills.

Students are awarded a Certificate of Applied Science after successfully completing the program.