CAREER AND TECHNICAL EDUCATION (CTE)

CTE 130 Introduction to Electricity and Electronics
This introduction to electricity and electronics includes properties of resistors, capacitors, and inductors in electrical circuits; basics of power distribution systems and house wiring; and the use of meters and oscilloscopes in lab. Three 1-hr lec and one 2-hr lab a wk.

CTE 200 (s) Seminar
CTE 200 (s) Seminar (cr arr).

CTE 203 (s) Workshop
CTE 203 (s) Workshop (cr arr).

CTE 204 (s) Special Topics
CTE 204 (s) Special Topics (cr arr).

CTE 267 Computer Aided Drafting/Design
This course has been designed to give students an introductory experience in manual drafting and sketching, drafting theory and 2D and 3D computer aided drafting Students may have to spend time in the CAD lab outside of class time to complete the required work.

CTE 298 (s) Internship
CTE 298 (s) Internship (cr arr).

CTE 299 (s) Directed Study
CTE 299 (s) Directed Study (cr arr).

CTE 310 Lab Safety, Mgmt, & Liability
Overview of operations, use, and maintenance of laboratory tools and equipment, laboratory management and liability concerns.

CTE 351 Principles and Philosophy of Career and Technical Education
Overview and interpretation of history, aims, and purposes of public education and professional-technical education; issues and programs comprising professional-technical education in Idaho and in the nation. Additional projects/assignments required for graduate credit.

CTE 352 Manufacturing: Metallic Materials and Processes
This course introduces and reinforces knowledge in the area of manufacturing and manufacturing processes of metallic materials (ferrous and nonferrous). The materials themselves, primary processing, and the systems of secondary processing will be studied in-depth. Recommended Preparation: Work Experience.

CTE 353 Manufacturing Systems
In-depth examination and implementation of manufacturing theory and processes including research and development, product planning and controlling. Topics, such as Lean Manufacturing, Kanban, relating to manufacturing facilities and management of manufacturing processes will be discussed, studied and implemented in the manufacture of a designed product in quantity.
Prereq: CTE 267 and CTE 310.

CTE 354 Construction Technology
Prereq: CTE 267 and CTE 310.

CTE 370 Transportation & Engineering Technologies
Students will explore various forms of renewable energy and transportation systems. They will also work in teams to propose solutions to power, energy and transportation issues. Students will research, design, build and evaluate their potential solutions in a hands-on laboratory environment. Recommended Preparation: Math 143 and Phys 111.

CTE 398 (s) Internship
CTE 398 (s) Internship (cr arr).

CTE 400 (s) Seminar
CTE 400 (s) Seminar (cr arr).

CTE 403 (s) Workshop
CTE 403 (s) Workshop (cr arr)
Graded P/F.
Prereq: Permission.

CTE 404 (s) Special Topics
CTE 404 (s) Special Topics (cr arr).

CTE 405 (s) Professional Development
Prereq: CTE 310.

CTE 410 Technology & Society
In-depth examination and implementation of the relationship between technology and social change; previous course work in technology is not essential.

CTE 413 Retail Merchandising for Marketing Education
Designed for marketing teacher preparation. Contemporary information and activities that address retail merchandising, including standards and curriculum resources for secondary and two-year technical college courses. Curriculum standards, educational resources, careers, the role of retail, and the operation of a retail business that includes market analysis, store layout, and merchandising. Recommended Preparation: Mktg 321.

CTE 415 Microcomputer Applications
Advanced computer applications course designed primarily for business teacher education students; includes extensive hands-on experience using word processing, spreadsheet, and database programs used in both industry and business education programs; addresses methodology, curriculum development, and classroom management techniques.

CTE 416 Website Design and Development
Basics of html, advanced use of web development applications for purposes of creating effective websites that incorporate accepted design principles, taught in the context of Professional-Technical Education.
CTE 417 Teaching & Learning through STEM Integration
CTE 417 Teaching Learning through STEM Integration (3 cr)
Students examine a variety of approaches to teaching and assessment methods for technology educators at the secondary level. Instructional strategies best suited to learning technical skills, related academics, problem solving, and hands-on activities will be explored through the lens of Science, Technology, Engineering, and Mathematics (STEM) integration.
Prereq: EDCI 201, EDCI 301, and CTE 310.

CTE 418 Teaching Economics and Personal Finance
CTE 418 Teaching Economics and Personal Finance (3 cr)
In-depth examination and implementation of methods and materials for teaching economics and personal finance.
Prereq: Econ 201 or Equivalent.

CTE 419 Database Applications and Information Management
CTE J419/J519 Database Applications and Information Management (3 cr)
Teaching and training strategies for database applications. Includes database management principles and methods of information retrieval, processing, storage and distribution. Advanced project reqd for graduate credit.

CTE 420 Assessment in Contextual Learning Environments
CTE 420 Assessment in Contextual Learning Environments (3 cr)
Methods of assessing in contextual and hands on learning environments. Includes authentic assessment of project based learning.

CTE 425 Occupational Analysis and Curriculum Development
CTE 425 Occupational Analysis and Curriculum Development (3 cr)
Instructional design systems and curriculum development as a systematic method of designing, carrying out, and evaluating the total process of teaching and learning; based on research in human learning and communication, employing a combination of human and non-human resources to bring about effective instruction. Focus on secondary and post-secondary professional/technical education.

CTE 430 Leadership and Student Organizations
CTE 430 Leadership and Student Organizations (2 cr)
Development of leadership skills; instruction in planning, implementation and supervision of professional-technical student organizations; and participation in regional leadership conferences.

CTE 431 Supervising CTE Career and Technical Student Organizations
CTE 431 Supervising CTE Career and Technical Student Organizations (1-3 cr, max 3)
Supervising CTE CTSOs involves active participation in career and technical student organization (CTSOs). Students assist in the administration and supervision of secondary regional and/or state CTSO conferences, and involve themselves with content area post-secondary CTSO competitive events program. Students are responsible for arranging and financing travel to appropriate CTSO events.

CTE 439 Robotics Technologies for K-12 Environments
CTE J439/J539 Robotics Technologies for K-12 Environments (3 cr)
See EDCI J439/J539.

CTE 447 Diverse Populations and Individual Differences
CTE 447 Diverse Populations and Individual Differences (2-3 cr)
Examines the impact of individual differences on teaching and learning.

CTE 460 Desktop Publishing
CTE 460 Desktop Publishing (3 cr)
Advanced desktop publication techniques, concepts, and applications through use of computer technology; planning, layout, and design of publications are highlighted. Recommended Preparation: CTE 415.

CTE 462 Communication Technology
CTE 462 Communication Technology (3 cr)
Investigation and laboratory activities associated with a variety of communication technologies, including interpersonal, human to machine and machine to machine, through contemporary devices and materials. Recommended Preparation: CTE 415.

CTE 464 Career Guidance and Transitioning to Work
CTE 464 Career Guidance and Transitioning to Work (3 cr)
Designed for career development counselors and facilitators; establishment of the three pillars of career guidance and how to implement the steps for developing a comprehensive individualized career plan.

CTE 470 Technical Competence
CTE 470 Technical Competence (1-32 cr, max 32)
Technical competence is gained from occupational credentials or passing of competency exams related to the bachelor of science degree in PTE education or technology. Grades for successful completion of CTE 470 will be transcripted as P (pass) normally during the student's last semester and completion of all degree requirements.

CTE 472 Teaching and Learning in Organizations
CTE 472 Teaching and Learning in Organizations (3 cr)
Students examine research-based approaches to facilitate learning outcomes for occupational educators in post-secondary, secondary and private sector contexts; instructional strategies and materials will be considered and developed to facilitate learning in technical skills, related applied academics, and workplace readiness knowledge and dispositions.

CTE 481 Computer-Integrated and Robotics Manufacturing Technologies
CTE 481 Computer-Integrated and Robotics Manufacturing Technologies (3 cr)
In-depth examination and implementation of advanced computer aided drafting, 3D solids modeling, computer numerical control, basic and advanced toolpath generation, virtual machining environments, and robotics applications. Enrollment per section limited to lab stations available.
Prereq: CTE 267 or Engr 105; and CTE 310, CTE 352, and ASM 202.

CTE 484 (s) Internship in Career and Technical Education Teaching
CTE 484 (s) Internship in Career and Technical Education Teaching (3-14 cr, max 28)
Guided observation, supervised instruction, and comprehensive team and independent teaching in school settings.
Prereq: Admission to teacher education program
Coreq: EDCI 401.

CTE 492 Business and Marketing Education Methods
CTE 492 Business and Marketing Education Methods (3 cr)
Teaching pedagogy, instructional materials and student evaluation strategies in Business and Marketing Education.
Prereq: Permission.

CTE 494 Senior Project
CTE 494 Senior Project (3 cr)
In the last year of study, students select an individual design project related to their area of specialization within technology education. Some students may have the option of joining a Senior Design Team in the College of Engineering. Project must be approved by instructor.
CTE 495 Administrative Technology Management and Procedures
CTE 495 Administrative Technology Management and Procedures (3 cr)

CTE 498 (s) Internship
CTE 499 (s) Directed Study
CTE 499 (s) Directed Study (cr arr).

CTE 500 Master's Res & Thesis
CTE 500 Master's Research and Thesis (cr arr).

CTE 501 (s) Seminar
CTE 501 (s) Seminar (cr arr).

CTE 502 (s) Directed Study
CTE 502 (s) Directed Study (cr arr).

CTE 503 (s) Workshop
CTE 503 (s) Workshop (cr arr).

CTE 504 (s) Special Topics
CTE 504 (s) Special Topics (cr arr).

CTE 505 (s) Professional Development
CTE 505 Professional Development (cr arr)
See CTE J405/J505.

CTE 539 Robotics Technologies for K-12 Environments
CTE J439/J539 Robotics Technologies for K-12 Environments (3 cr)
See EDCI J439/J539.

CTE 544 Idaho Leadership Institute
CTE 544 Idaho Leadership Institute (1-12 cr, max 12)
Institute for the preparation of the next generation of Idaho’s leaders in professional-technical education.
Prereq: Accepted into the Idaho Leadership Institute.

CTE 551 Principles and Philosophy of Career and Technical Education
CTE 551 Principles and Philosophy of Career and Technical Education (3 cr)
See CTE J351/J551.

CTE 597 (s) Practicum
CTE 597 (s) Practicum (cr arr)
Application of theories and techniques; supervised field experiences in selected settings. Graded P/F.
Prereq: Permission.

CTE 598 (s) Internship
CTE 598 (s) Internship (cr arr)
Supervised experience in teacher education, administration, supervision, or ancillary services in professional-technical education. Graded P/F.
Prereq: Permission.

CTE 599 (s) Non-thesis Master's Research
CTE 599 (s) Non-thesis Master's Research (cr arr)
Research not directly related to a thesis or dissertation.
Prereq: Permission.

CTE 600 Doctoral Research & Dissertation
CTE 600 Doctoral Research and Dissertation (cr arr).