

**Program of Study**  
**Bachelor of Science Degree in Career and Technical Education**

Program for students admitted F05 & thereafter  
 Program Sheet revised 5/25/04

*Minimum 120 degree credits required.*  
 Department of Work, Community and Family Education  
 College of Education and Human Development  
 University of Minnesota

Name \_\_\_\_\_ Student ID Number \_\_\_\_\_ Phone Number \_\_\_\_\_ E-mail \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Liberal Education Requirements (37-39 cr.) (Credit will be given for previous liberal education coursework taken.)**

**Designated Themes\***

**The Diversified Core Curriculum:**      Transfer or Substitution                      CD    IP    Env    C/PE    Sem/Yr    Gr    Cr  
**Physical and Biological Sciences – 8 credits minimum**

A minimum of 2 courses totaling at least 8 credits, including one course with laboratory or field experience in the physical sciences and one course with laboratory or field experience in the biological sciences.

	<u>Phylab</u>	<u>Biolab</u>							
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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**Physical & Biological Sciences Total Credits** \_\_\_\_\_

**History and Social Sciences – 8 credits minimum**

A minimum of 2 courses for at least 8 credits, including one course with historical perspective.

	<u>Hist</u>	<u>SSci</u>							
<input type="checkbox"/> Psy 1001 Introduction to Psychology (4) ( <i>minimum grade of C- required</i> ) <b>OR</b>									
<input type="checkbox"/> GC 1281 General Psychology (4) ( <i>minimum grade of C- required</i> ) _____		X							
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**History and Social Science Total Credits** \_\_\_\_\_

**Arts and Humanities – 8 credits minimum**

A minimum of 2 courses totaling at least 8 credits, including courses in two of the following: literature, philosophical perspectives, and visual or performing arts.

	<u>Lit</u>	<u>Vis/Per</u>	<u>Phil</u>						
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**Arts and Humanities Total Credits** \_\_\_\_\_

**Mathematical Thinking – 3 credits minimum**

A minimum of 1 course totaling at least 3 credits.

<input type="checkbox"/> Math 1001 Excursions in Mathematics (3) <b>OR</b>									
<input type="checkbox"/> Math 1031 College Algebra & Probability (3) _____									
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

**Mathematical Thinking Total Credits** \_\_\_\_\_

**\*Designated Themes:** A minimum of 5 courses (or 4 if one includes an approved practicum), including one course in each of the following: Cultural Diversity, International Perspectives, Environment, and Citizenship & Public Ethics.

**Writing Requirement- 4 credits minimum**

Transfer or Substitution

Sem/Yr

Gr

Cr

- EngC 1011 University Writing & Critical Reading (4), **OR**
- Rhet 1101 Writing to Inform, Convince and Persuade (4), **OR**
- GC 1421 Writing Lab: Basic Writing (3) **AND one of the following:**
- GC 1422 Writing Lab: Communicating in Society (3), **OR**
- GC 1423 Writing Lab: Community Service Writing (3), **OR**
- GC 1424 Writing Lab: Communicating in a Diverse Society (3)

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**AND**

- Rhet 3562W Technical and Professional Writing (4), **OR**
- BA 3033W Business Communication (3)

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**AND**

**Writing Requirement Total Credits** \_\_\_\_\_

**Speech Requirement: 3 credits minimum**

- Comm 1101 Introduction to Public Speaking (3). **OR**
- Rhet 1223 Oral Presentations in Professional Settings (3)

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**Speech Requirement Total Credits** \_\_\_\_\_

**Liberal Education Requirements Total Credits** \_\_\_\_\_

**Pedagogical Studies (11-17 cr.)**

The pedagogical studies course block includes courses in curriculum development, teaching methods, testing, as well as philosophy of career and technical education teaching.

- BIE 1396 Supervised Career and Technical Education Teaching (4)  
*(BIE 1396 is required only for those without teaching experience)*
- WCFE 1301 Introduction to Career and Technical Education Teaching (2) (TES)  
*(WCFE 1301 is not required if two or more of the other TES have been taken)*
- WCFE/HRD 3629 Foundations of Course Development for Business and Industry (2) (TES) **OR**  
WCFE/HRD 5629 Course Development for Business & Industry (2) (TES)
- WCFE/HRD 3601 Foundations of Student & Trainee Assessment (2) (TES) **OR**  
WCFE/HRD 5601 Student & Trainee Assessment (2) (TES)
- WCFE/HRD 3661 Foundations of Instructional Methods for Business and Industry (2) (TES) **OR**  
WCFE/HRD 5661 Instructional Methods for Business & Industry (2) (TES)
- WCFE 3301 Foundations of Philosophy and Practice of Career and Technical Education (2) (TES) **OR**  
WCFE 5301 Philosophy & Practice of Career and Technical Education (2) (TES)
- EdHD 5001 Learning Cognition and Assessment in the Schools (3)

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**Business & Industry Education Pedagogical Studies Total Credits** \_\_\_\_\_

**Career Content Proficiency (44 semester credits)**

Transfer or Substitution

Gr

Cr

**A. Secondary 9-12 Licensure Option – Judged in relation to CTE Licensure Category Desired / OR**

**B. Postsecondary Option – Judged in relation to MnSCU licensure category (Occupational experience - 10 credits minimum)**

**Up to 32 credits from previous or after enrollment occupational experience, formal technical college, military or industry and other types of workshops related to the field**

Will be evaluated for transfer to

BIE 3151 Technical Development: Advanced (max 32 cr) \_\_\_\_\_

**Electives Courses After Enrollment**

**Planned formal technical college, military or industry and other types of workshops related to the field**

BIE 5151 Technical Development: Specialized (1-8 cr/sem – max 12 cr) \_\_\_\_\_

BIE 5993 Directed Study in Business and Industry (1-4 cr/sem – max 10 cr) \_\_\_\_\_

**Planned Occupational Experience**

BIE 5596 Occupational Experience in Business & Industry (1-4 cr/sem – max 10 cr) \_\_\_\_\_

**Elective content courses selected with an advisor (See suggested electives)**

**Career Content Proficiency Total Credits** \_\_\_\_\_

**Additional Requirements**

Transfer or Substitution

CD

IP

**Designated Themes\***

Env

C/PE

Sem/Yr

Gr

Cr

WCFE 3011W Introduction to Technology and Public Ethics (3) **OR** \_\_\_\_\_ X \_\_\_\_\_

WCFE 5011W Technology and Public Ethics (3) \_\_\_\_\_ X \_\_\_\_\_

EdHD 5009 Human Relations: Applied Skills for School and Society (1) \_\_\_\_\_

PubH 3003/5003 Fundamentals of Drug and Alcohol Abuse (2) \_\_\_\_\_

American Red Cross Standard First Aid & Personal Safety  
First Aid and CPR cards or certificates must be current at graduation. \_\_\_\_\_

**Additional Requirements Total Credits** \_\_\_\_\_

**Program Electives**

To complete the 120 credit requirement for the B.S. degree.

	<u>Transfer or Substitution</u>	<u>CD</u>	<u>IP</u>	<u>Designated Themes*</u>			<u>Gr</u>	<u>Cr</u>
				<u>Env</u>	<u>C/PE</u>	<u>Sem/Yr</u>		
_____	_____	_____	_____	_____	_____	_____	_____	_____
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<b>Program Elective Total Credits</b>							_____	_____

**Some suggested electives:**

**Optional elective courses necessary for meeting the Work Based Learning Endorsement**

- WCFE 5802 Enhancing Work-Based Learning through Collaboration (2) \_\_\_\_\_
- WCFE 5511 Education for Work (3) \_\_\_\_\_
- WCFE 5521 Work-Based Learning Policies (2) \_\_\_\_\_
- WCFE 5522 Work-Based Learning Practices (3) \_\_\_\_\_

**Optional elective requirements necessary for meeting the Accommodation Specialist Endorsement**

The Accommodation Specialist Endorsement requires a special education license AND the 4 courses required for Work Based Learning Endorsement AND

- EPsy 5604 Transition from School to Work and Community Living for Persons With Special Needs (3) \_\_\_\_\_

**Other Suggested Optional Electives**

- BIE 5151 Technical Development: Specialized (1-8 cr/sem, max 12 cr) \_\_\_\_\_
- BIE 3111 Exploring Technology Systems (3 cr) \_\_\_\_\_
- BIE 3112 Technical Drawing and Production Technologies (3 cr) \_\_\_\_\_
- BIE 3113 Manufacturing Technology (3 cr) \_\_\_\_\_
- BIE 3114 Construction Technology (3 cr) \_\_\_\_\_
- BIE 3121 Communication, Power & Energy, Transportation and Machinery Technologies (3 cr) \_\_\_\_\_
- BIE 3122 Communication and Information Technology (3 cr) \_\_\_\_\_
- BIE 3123 Energy, Power and Transportation Technology (3 cr) \_\_\_\_\_
- BIE 5596 Occupational Experience in Business & Industry (1-4 cr/sem, max 10 cr) \_\_\_\_\_
- BIE 5011 Introduction to Computer Applications (3) \_\_\_\_\_
- BIE 5012 Advanced Word Processing (3) \_\_\_\_\_
- BIE 5013 Spreadsheet Analysis Using Computers (3 cr) \_\_\_\_\_
- BIE 5014 Database Computer Applications (3 cr) \_\_\_\_\_
- BIE 5628 Multimedia Presentations in Business (3) \_\_\_\_\_
- BIE 5662 Computer Training in School and Industry Settings (3) \_\_\_\_\_
- BIE 5321 Vocational Guidance in Business and Industry Education (2) \_\_\_\_\_
- BIE 5344 Facilities Management in Business & Industry (3) \_\_\_\_\_
- AdEd 5102 Perspectives of Adult Learning and Development (3) \_\_\_\_\_
- WCFE 5801 Educating Special Populations in Work, Community, and Family Settings (3) \_\_\_\_\_
- WCFE/HRD 5821 Diversity Issues and Practices in Work, Community and Family Settings (3) \_\_\_\_\_
- WCFE/HRD 5822 Diversity and Organizational Transformation in Work, Community, and Family Education (3) \_\_\_\_\_
- HRD 5101 Foundations of Human Resource Development (1) \_\_\_\_\_
- HRD 5201 Training and Development of Human Resources (3) \_\_\_\_\_
- HRD 3301 Introduction to Organizational Development (3) \_\_\_\_\_

**Bachelor of Science Program Total Credits** \_\_\_\_\_

**Additional Degree Requirements:**

- Minimum GPA for graduation: 2.00 overall, 2.50 in major
- 30 credit College of Education and Human Development residence requirement. A minimum of 30 credits must be completed at the University of Minnesota after admission to the College of Education and Human Development as a student in the Bachelor of Science degree program.
- File your application for degree one full semester before you expect to graduate.

**Program Approval:**

Advisor \_\_\_\_\_ Date \_\_\_\_\_

Student Progress Committee \_\_\_\_\_ Date \_\_\_\_\_