

**Columbia Basin College**  
**Catalog 06-08**  
**Addendum**

# Degree/ Certificate Requirements

## Associate Of Arts & Science (AA) Degree Requirements

### A. COMMUNICATIONS 13 credits

**Communications:** (10 credits in English plus a minimum of 3 credits in Speech)

ENG 101

ENG 201 or 205

SPE 101, 102, 110, 111, 260

### MATH PROFICIENCY

Intermediate Algebra Proficiency requirement:

Must do one of the following:

Pass Intermediate Algebra (MTH 095 or MTH 098) with a 2.0 or better.

Pass a Math class that has an Intermediate Algebra Prerequisite.

Place into any MTH course 113 or above via Placement Test.

### B. QUANTITATIVE/SYMBOLIC REASONING 5 credits

Choose one class from the Quantitative Reasoning or Symbolic Reasoning courses.

#### Quantitative Reasoning:

Any MTH course 122 or above or

#### Symbolic Reasoning:

CS 102, 161, 162, 202 or PHI 121.

### C. HUMANITIES 15 credits

Complete at least one course from any two of the following groups.

Courses must be selected from three different subject areas.

#### Group 1

ART 110, 116, 117, 118, 119, 120, 121; MUS 115, 116

#### Group 2

ENG 240, 241, 255; LIT 140, 150, 160, 180, 195, 203, 205, 206, 207, 225, 226, 227, 264, 265, 266, 270, 280; THA 115, 215; SPE 220, 246

#### Group 3

CC 201, 202, 203; HIS 101, 102, 103; ICS 120, 125, 222; PHI 101, 120, 131, 150; WS 155, 160; ENG 210

#### Group 4

#### Foreign Language:

CHIN 101, 102, 103; FR 101, 102, 103, 201, 202, 203, 260, 261, 262; GER 101, 102, 103, 201, 202, 203, 260, 261, 262; JPSE 101, 102, 103, 201; RUS 101, 102, 103; SPA 101, 102, 103, 104, 110, 111, 112, 201, 202, 203, 205, 206, 207, 260, 261, 262; all foreign language courses count as a single subject area. EFL 101, 111

### D. SOCIAL & BEHAVIORAL SCIENCE 15 credits

Complete at least one course from each one of the following two groups.

Courses must be selected from three different subject areas.

#### Group 1

PSY 100, 101, 201, 202, 205, 240; SOC 101, 150, 201, 269;

#### Group 2

ANT 101, 120, 130; EC 110, 201, 202, 291; GEO 150; HIS 104, 105, 110, 111, 112, 113, 115, 233; ICS 255; PS 100, 101, 103, 104, 150, 151; SSCI 290/2901.

### E. MATHEMATICAL & NATURAL SCIENCE 15 credits

At least 10 credits need to be from science courses. Courses must be selected from two different subject areas.

One course must be a laboratory science. A single math course

cannot count for both a mathematical and natural science course and a quantitative skill course.

ANT 111; AST 101/1011; BIO 100/1001, 105/1051, 110/1101, 111/ 1111, 112/1121, 113/1131, 120, 140/1401, 148/1481, 186/1861, 201/2011, 221/2211, 222/2221, 240/ 2401, 250/2501, 252/2521, 253/2531, 254/2541, 260/2601; CHM 100/1001, 101/ 1011, 110/1101, 111/1111, 112/1121, 113/1131, 120/1201, 130/1301, 135/1351, 221/2211, 222/2221, 223/2231, 251/2511, 252/2521, 2861-2869, 2901-2909; ENVIS 100/1001, 174; GEL 101/1011, 102/1021, 203/2031, 211/2111; GEO 101, 120/1201; MTH 113, 121, 122, 123, 130, 143, 147, 154, 155, 157, 210, 231, 232, 233, 234, 243, 246, 254; NFS 111; PHY 100/1001, 105/1051, 106/1061, 107/1071, 201/ 2011, 202/2021, 203/2031; SCI 110/1101

### F. HEALTH & PHYSICAL EDUCATION 3 credits

Health Lecture or PE activity courses

HE 110, 160, 161, 1611, 170, 171/1711, 210, 215/2151, 220, 230, 232, 240, 250; or

PE 1101, 1111, 1121, 1131, 1141, 1151, 1161, 1171, 1181, 1191, 1201, 1211, 1221, 1271,1281, 1291, 1321, 1331, 1351, 1401, 1411, 1421, 1451, 1461, 1471, 1481, 1491, 1501, 1601, 1611, 1621, 1631, 1641, 1651, 1811, 180/1801, 1871, 1881, 1891, 1901, 2011

### G. ELECTIVES 24 credits

Courses must be numbered 100 and above. A maximum of 15 credits from restricted electives may be applied. Please consult with your advisor or counselor.

Note:

\*Required minimum credits 90.

\*Required cumulative GPA 2.0.

\*A minimum of 30 credits CBC courses.

\*Depending on your major, some course choices may be more appropriate than others.

\*Consult with your counselor or faculty advisor.

\*Maximum 6 credits of PE activity may be applied.

\*3 credits in Health and PE and 3 credits included in restricted electives.

## 2007-2008 Associate in Science Transfer Degree Biological Sciences/Chemistry/ Environmental or Resources Sciences/ Geology & Earth Sciences

### A. Communications (5 credits)

ENG 101, 201

### B. Math (10 credits)

(Two courses at or above Calculus)

MTH 231, 232, 233, 234, 243, 254

### C. Humanities & Social/Behavioral Science (15 credits)

Complete at least one course from each of the following groups.

Courses must be selected from three different subjects.

1. ART 110, 116, 117, 118, 119, 120, 121; CC 201, 202, 203; ENG 240, 241, 255; MUS 115, 116; LIT 140, 150, 160, 180, 195, 203, 205, 206, 207, 225, 226, 227, 264, 265, 266, 270, 280; THA 115, 215; SPE 220, 246; HIS 101, 102, 103; ICS 120, 125, 222; PHI 101, 120, 131, 150; WS 155, 160; ENG 210

**Foreign Language 101& above**, (excluding conversational classes) EFL 101, 111

All foreign language courses count as a single subject area.

2. PSY 100, 101, 201, 202, 205, 240; SOC 101, 150, 201, 269; ANT 101, 120, 130; EC 110, 201, 202, 291; GEO 150; HIS 104, 105, 110, 111, 112, 113, 115, 233; ICS 255; PS 100, 101, 103, 104, 150, 151; SSCI 290/2901

### D. Pre Major (45-50 credits)

1. CHM 111/1111, 112/1121, 113/1131

2. MTH 143 or 233

3. BIO 111/1111, 112/1121, 113/1131 or

PHY 105/1051, 106/1061 & 107/1071 or

PHY 201/2011, 202/2021 & 203/2031

4. Additional requirements: 10-15 quarter credits in Physics, Geology, Organic Chemistry, Biology, or Mathematics, consisting of courses normally taken for Science majors (not for general education), preferably in a 2- or 3-quarter sequence.

### E. Program Specific Under Advisement (10-15 credits)

Sufficient additional college-level credits so that total credits earned are at least 90 quarter credits. These remaining credits may include prerequisites for major courses (e.g., pre-calculus), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

\*\*Some baccalaureate programs require Physics with Calculus.

\*\*\*A single course cannot count in two areas.

Select courses based on the requirements or the specific discipline at the baccalaureate institution you plan to attend.

Note: \*Required minimum credits 90.

\*Required cumulative GPA 2.0.

\*A minimum of 30 credits CBC courses.

\*Depending on your major, some course

choices may be more appropriate than others.

\*Consult with your counselor or faculty advisor.

The Associate of Science Degree does NOT guarantee that a student has met the general education requirements at the transfer baccalaureate institution.

## 2007-2008 Associate in Science Transfer Degree Engineering/Computer Science/Physics/ Atmospheric Sciences

### A. Communications (5 credits)

ENG 101, 201

### B. Math (10 credits)

(Two courses at or above Calculus)

MTH 231, 232, 233, 234, 243, 254

### C. Humanities & Social/Behavioral Science (15 credits)

Complete at least one course from each of the following groups.

Courses must be selected from three different subjects.

1. ART 110, 116, 117, 118, 119, 120, 121; CC 201, 202, 203; ENG 240, 241, 255; MUS 115, 116; LIT 140, 150, 160, 180, 195, 203, 205, 206, 207, 225, 226, 227, 264, 265, 266, 270, 280; THA 115, 215; SPE 220, 246; HIS 101, 102, 103; ICS 120, 125, 222; PHI 101, 120, 131, 150; WS 155, 160; ENG 210

**Foreign Language 101& above**, (excluding conversational classes) EFL 101, 111

All foreign language courses count as a single subject area.

2. PSY 100, 101, 201, 202, 205, 240; SOC 101, 150, 201, 269; ANT 101, 120, 130; EC 110, 201, 202, 291; GEO 150; HIS 104, 105, 110, 111, 112, 113, 115, 233; ICS 255; PS 100, 101, 103, 104, 150, 151; SSCI 290/2901

### D. Pre Major (30 credits)

#### 1. Science (5 credits)

Any Science based on program requirements or

CHM 111/1111-Engineering majors

#### 2. Math (5 credits)

MTH 143 or MTH 233

#### 3. Computer Programming Language (5 credits)

As advised for specific discipline/institution.

#### 4. Physics 15 (credits) Choose one of the following sequences:

PHY 105/1051, 106/1061, & 107/1071 or

PHY 201/2011, 202/2021, & 203/2031

### E. Program Specific Under Advisement (30 credits)

The remaining 30 quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend. For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards.

\*\*Some baccalaureate programs require Physics with Calculus.

\*\*\*A single course cannot count in two areas.

Sequences of courses should be completed at one institution.

Select courses based on the requirements or the specific discipline at the baccalaureate institution you plan to attend.

Note: \*Required minimum credits 90.

\*Required cumulative GPA 2.0.

\*A minimum of 30 credits CBC courses.

\*Depending on your major, some course choices may be more appropriate than others.

\*Consult with your counselor or faculty advisor.

The Associate of Science Degree does NOT guarantee that a student has met the general education requirements at the transfer baccalaureate institution

**Certificate Requirements****2007-2008 General Studies Certificate****A. Communications (8 credits)**

ENG 101, (Required 5 credits)

Choose 3 additional credits from the following:

ENG 201 or 205; SPE 101, 102, 110, 111, 260

**B. Humanities (10 credits)**

Complete at least 10 credits from any of the following courses.

ART 110, 116, 117, 118, 119, 120, 121; MUS 115, 116; ENG 240, 241, 255; LIT 140, 150, 160, 180, 195, 203, 205, 206, 207, 225, 226, 227, 264, 265, 266, 270, 280; THA 115, 215; SPE 220, 246; CC 201, 202, 203; HIS 101, 102, 103; ICS 120, 125, 222; PHI 101, 120, 131, 150; WS 155, 160; ENG 210; CHIN 101, 102, 103; FR 101, 102, 103, 201, 202, 203, 260, 261, 262; GER 101, 102, 103, 201, 202, 203, 260, 261, 262; JPSE 101, 102, 103, 201, 202, 203, 260, 261, 262; 201; RUS 101, 102, 103; SPA 101, 102, 103, 104, 110, 111, 112, 201, 202, 203, 205, 206, 207, 260, 261, 262; EFL 101, 111

**C. Social & Behavioral Science (10 credits)**

Complete at least 10 credits from any of the following courses.

PSY 100, 101, 201, 202, 205, 240; SOC 101, 150, 201, 269; ANT 101, 120, 130; EC 110, 201, 202, 291; GEO 150; HIS 104, 105, 110, 111, 112, 113, 115, 233; ICS 255; PS 100, 101, 103, 104, 150, 151; SSCI 290/2901.

**D. Mathematical & Natural Science (10 credits)**

Complete at least 10 credits from any of the following courses.

ANT 111; AST 101/1011; BIO 100/1001, 105/1051, 110/1101, 111/1111, 112/1121, 113/1131, 120, 140/1401, 148/1481, 186/1861, 201/2011, 221/2211, 222/2221, 240/2401, 250/2501, 252/2521, 253/2531, 254/2541, 260/2601; CHM 100/1001, 101/1011, 110/1101, 111/1111, 112/1121, 113/1131, 120/1201, 130/1301, 135/1351, 221/2211, 222/2221, 223/2231, 251/2511, 252/2521, 2861-2869, 2901-2909; ENVS 100/1001, 174; GEL 101/1011, 102/1021, 203/2031, 211/2111; GEO 101, 120/1201; MTH 113, 121, 122, 123, 130, 143, 147, 154, 155, 157, 210, 231, 232, 233, 234, 243, 246, 254; NFS 111; PHY 100/1001, 105/1051, 106/1061, 107/1071, 201/2011, 202/2021, 203/2031; SCI 110/1101

**G. Electives (50-52 credits)**

Courses must be numbered 100 and above. Please consult with your advisor or counselor.

*Note:*

\*Required minimum credits 90.

\*Required cumulative GPA 2.0.

\*A minimum of 30 credits CBC courses.

# Program Offerings

## Associate of Applied Science in Accounting

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
BA 251	Principles of Accounting	5
BA 252	Principles of Accounting	5
BA 253	Principles of Accounting	5

*Select 4 courses from the following options:*

BA 105	Business and Payroll Tax Accounting	5
BA 107	Federal Income Taxes	5
BA 111	Computerized Accounting &	4
BA 1111	Computerized Accounting Lab.	1
BA 250	Management Information Systems.	5
BA 264	Accounting Information Systems	5

**Subtotal. . . . .35**

#### Major Support

*(a minimum of 35 credits are required)*

Course No.	Course Title	Credits
AOT 124	Intermediate Spreadsheet Applications	5
BA 101	Introduction to Business	5
BA 120	Personal Finance	5
BA 165	Investments	5
BA 254	Business Law	5
BA 255	Business Law	5
BA 270	Accounting Review Using Excel	5
BA 2952	Supervised Employment.	1-5
CA 100	Introduction to Microcomputers.	4
<b>CS 101</b>	<b><i>Introduction to Computer and Information Technology.</i></b>	<b>5</b>
CS 106	Database Systems.	5
EC 201	Principles of Economics I	5
EC 202	Principles of Economics II	5
MTH 143	Basic Statistics	5
MTH 147	Finite Math	5
MTH 210	Basic Calculus.	5
AOT	Keyboarding	2-4

**Subtotal. . . . .35**

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition.	5
ENG 205	Technical Writing	5
MTH 106+	MTH 106 or above	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <b>or</b> .	5
PSY 201	Social Psychology <b>or</b> .	5
SOC 101	Introduction to Sociology.	5

*Speech (select 3 credits)*

SPE 101	Speech Essentials <b>or</b> .	3
SPE 110	Communication Behavior.	3

**Subtotal. . . . .23**

**Total Credits Required. . . . .93**

## Accounting One-Year Certificate

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
BA 251	Principles of Accounting	5
BA 252	Principles of Accounting	5

*Select 2 courses from the following options:*

BA 105	Business and Payroll Tax Accounting	5
BA 111	Computerized Accounting &	4
BA 1111	Computerized Accounting Lab.	1
BA 250	Management Information Systems.	5

**Subtotal. . . . .20**

#### Major Support

**(a minimum of 15 credits are required)**

Course No.	Course Title	Credits
AOT 124	Intermediate Spreadsheet Applications	5
BA 101	Introduction to Business	5
BA 107	Federal Income Taxes	5
BA 120	Personal Finance	5
BA 253	Principles of Accounting	5
BA 254	Business Law	5
BA 255	Business Law	5
BA 264	Accounting Information Systems	5
BA 270	Accounting Review Using Excel	5
BA 2952	Supervised Employment.	1-5
AOT	Keyboarding	2-4
CA 100	Introduction to Microcomputers.	4
<b>CS 101</b>	<b><i>Introduction to Computer and Information Technology.</i></b>	<b>5</b>

CS 106	Database Systems.	5
EC 201	Principles of Economics I	5
EC 202	Principles of Economics II	5
MTH 143	Basic Statistics	5
MTH 147	Finite Math	5
MTH 210	Basic Calculus.	5

**Subtotal. . . . .15**

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition.	5
MTH 106+	MTH 106 or above	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <b>or</b> .	5
PSY 201	Social Psychology <b>or</b> .	5
SOC 101	Introduction to Sociology.	5

*Speech (select 3 credits)*

SPE 101	Speech Essentials <b>or</b> .	3
SPE 110	Communication Behavior.	3

**Subtotal. . . . .18**

**Total Credits Required. . . . .53**

## Associate of Applied Science-Administrative Assistant

### PROFESSIONAL TECHNICAL

### TRANSFER DEGREE

*To be eligible for ENG 101 or ENG 103 and the required Math, the student may need to complete ENG 098/ENG 099 and MTH 095. Certificate entry keyboarding of 25 net wpm in 3' timing required. To achieve this, the student may need to complete AOT 101/AOT 102. To achieve Internet proficiency, the student may need to enroll in CS 113. Also AOT 114 or COMPASS Reading 82 & Writing 87. Software Assessment Training.*

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers.	4
AOT 102	Keyboarding II	2
AOT 1091	Keyboarding/Skillbuilding	3
AOT 117	Office Orientation	3

AOT 124	Intermediate Spreadsheet Applications . . . . .	5
AOT 125	Database Applications . . . . .	5
AOT 126	Presentation Applications . . . . .	3
AOT 128	Web Page Maintenance . . . . .	5
AOT 129	Accounting Software . . . . .	3
AOT 142	General Office Procedures . . . . .	5
AOT 172	Word Processing I . . . . .	5
AOT 272	Word Processing II . . . . .	3
AOT 243	Administrative Office Management <b>or</b> . . . . .	2
AOT 244	Legal Administrative Office Procedures <b>or</b> . . . . .	5
HIT 245	Medical Office Procedures . . . . .	2
AOT 270	Business Correspondence . . . . .	5
AOT 276	Integrated Word Processing . . . . .	5
AOT 290	Professional Development . . . . .	3
AOT 294	Software Teaching Methods . . . . .	5
<b>Subtotal. . . . .</b>		<b>66-69</b>

**Major Support**

*Economics (select 5 credits)*

Course No.	Course Title	Credits
EC 201	Principles of Economics I <b>or</b> . . . . .	5
EC 202	Principles of Economics II . . . . .	5

*Social Science or Humanities* **10**  
**Subtotal. . . . . 15**

**General Education**

Course No.	Course Title	Credits
ENG 101	English Composition . . . . .	5
MTH 121	Structure of Elementary Math or above . . . . .	5
CS 102	Visual Basic 1 . . . . .	5

*English (select 5 credits)*

ENG 201	Advanced English Composition <b>or</b> . . . . .	5
ENG 205	Technical Writing . . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials or . . . . .	3
SPE 260	Multicultural Communications . . . . .	5

**Subtotal. . . . . 18-20**

**Total Credits Required. . . . . 99-104**

*Recommended: Students purchase a USB storage drive.*

## Associate of Applied Science in Administrative Assistant

### PROFESSIONAL TECHNICAL

To be eligible for ENG 101 or ENG 103 and the required Math, the student may need to complete ENG 098/ENG 099 and MTH 084. Degree keyboarding entry of 40 netwpm in 3' timing required. To achieve this, the student may need to complete AOT 101/AOT 102. To achieve Internet proficiency, the student may need to enroll in CS 113. Software Assessment Training.

**Major Courses**

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers. . . . .	4
AOT 114	Editing . . . . .	5
AOT 117	Office Orientation . . . . .	3
AOT 124	Intermediate Spreadsheet Applications . . . . .	5
AOT 125	Database Applications . . . . .	5
AOT 126	Presentation Applications . . . . .	3
AOT 128	Web Page Maintenance . . . . .	5
AOT 129	Accounting Software . . . . .	3
AOT 130	Practical Accounting . . . . .	5
AOT 142	General Office Procedures . . . . .	5
AOT 172	Word Processing I . . . . .	5
AOT 1952*	Supervised Employment . . . . .	3

AOT 243	Administrative Office Management <b>or</b> . . . . .	2
AOT 244	Legal Administrative Office Procedures <b>or</b> . . . . .	5
HIT 245	Medical Office Procedures . . . . .	2
AOT 270	Business Correspondence . . . . .	5
AOT 272	Word Processing II . . . . .	3
AOT 276	Integrated Word Processing . . . . .	5
AOT 290	Professional Development . . . . .	3
<b>Subtotal. . . . .</b>		<b>69</b>

**Major Support**

Course No.	Course Title	Credits
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*Student must choose at least 10 credits from the following:*

HIT 118	Legal Aspects of the Medical Office III . . . . .	3
AOT 132	Payroll for the Office Professional . . . . .	3
AOT 146	Legal Terminology . . . . .	5
HIT 147	Medical Terminology . . . . .	5
HIT 155	Introduction to Medical Coding . . . . .	4
AOT 173	Word Processing . . . . .	5
AOT 1952*	Supervised Employment . . . . .	4
AOT 294	Software Teaching Methods . . . . .	5

Foreign Language. . . . . 5  
*Additional department-approved elective (from selected disciplines) accepted.*

*\*Supervised Employment site must meet Administrative Assistant position requirement.*

**Subtotal. . . . . 10**

**General Education**

Course No.	Course Title	Credits
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*English (select 5 credits)*

ENG 101	English Composition <b>or</b> . . . . .	5
ENG 103	Writing in the Workplace . . . . .	5
MTH 106+	MTH 106 or above . . . . .	5
PSY 100+	PSY 100 or above . . . . .	3-5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials <b>or</b> . . . . .	5
SPE 103	Workplace Communication <b>or</b> . . . . .	3
SPE 110	Communication Behavior <b>or</b> . . . . .	3
SPE 111	Communication Behavior <b>or</b> . . . . .	5
SPE 260	Multicultural Communications . . . . .	5

**Subtotal. . . . . 16-20**

**Total Credits Required. . . . . 95-99**

*AOT 109 is a prescribed course to facilitate keyboarding and 10-key speeds.*

*Degree completion requires keyboarding speed of 60 wpm and 10-key speed of 150 cpm. To achieve these speeds, AOT 109 may be taken three times for credit.*

*An Associate in Applied Science degree requires 90 credits.*

*Recommended: Students purchase a USB storage drive.*

## Agriculture

Agriculture is the science of the food and fiber industry. Courses are designed to provide the student with a deeper understanding of the foundational science of modern agriculture. Students will develop their ability to think critically and communicate through both spoken and written media. See also Horticulture, Agricultural Food Systems and Animal Science for courses required to earn an Associates of Arts and Science with an Emphasis in Agri-Business.



**NEW**

### Agricultural Food Systems

Agri-Food Systems give you a broad, interdisciplinary understanding of agriculture systems and allow you to develop specialized knowledge of business management in agriculture and related areas. The program prepares not only aspiring growers of crops, but also students who are interested in related industries, such as global marketing, direct marketing, or food production to contribute to the changing field of agriculture.

**NEW**

### Animal Science

Animal Science is the study of domestic animals, including their nutrition, genetics, breeding, welfare, physiology, and use in animal production systems.

**NEW**

### Associate of Arts & Science with an Emphasis in Agri-Business

TRANSFER DEGREE

#### Option C

**A. Communication (15 credits)**

Course	No.	Course Title	Credits
ENG	101	English Composition . . . . .	5
ENG	201	Advanced English Composition . . . . .	5
SPE	102	Speech Essentials . . . . .	5

**Math Proficiency** X

**B. Quantitative/Symbolic Reasoning (5 credits)**

Course	No.	Course Title	Credits
MTH	143	Basic Statistics . . . . .	5

**C. Humanities (15 credits)**

Course	No.	Course Title	Credits
ICS	120	Survey of Hispanic Culture . . . . .	5
SPA	110	Beginning Spanish for Professionals <u>or</u> . . . . .	5
CHIN	101	Chinese First Quarter . . . . .	5
SPE	220	Communication Skills for Conflict Resolution and Mediation . . . . .	5

**D. Social & Behavioral Science (15 credits)**

Course	No.	Course Title	Credits
PSY	101	General Psychology . . . . .	5
SOC	101	Introduction to Sociology . . . . .	5
EC	201	Principles of Economics I . . . . .	5

**E. Mathematical & Natural Science (15 credits)**

Course	No.	Course Title	Credits
CHM	111	General Chemistry I . . . . .	4
CHM	1111	General Chemistry I Lab . . . . .	1
CHM	112	General Chemistry II . . . . .	4
CHM	1121	General Chemistry II Lab . . . . .	1
BIO	111	Core Biology-The Cell . . . . .	4
BIO	1111	Core Biology-The Cell Lab . . . . .	1

**F. Health and Physical Education (3 credits)**

Course	No.	Course Title	Credits
HE	230	First-Aid Safety . . . . .	3

**G. Electives (31 credits)**

Course	No.	Course Title	Credits
AFS	101	Introduction to Agricultural Systems . . . . .	3
AFS	201	Agricultural and Food Systems . . . . .	3
AG	201	Soils . . . . .	4
AG	2011	Soils Lab . . . . .	1
AS	101	Introduction to Animal Science . . . . .	4
AS	1011	Introduction to Animal Science Lab . . . . .	1
BA	251	Principles of Accounting . . . . .	5
CHM	113	General Chemistry III . . . . .	4
CHM	1131	General Chemistry III Lab . . . . .	1
HORT	202	Cultivated Crops . . . . .	5
<b>Total Credits Required.</b> . . . . .			<b>99</b>

### Automotive Technology

The Automotive Technology Program is a comprehensive two-year course combining classroom instruction and hands-on training. The program is based on the eight Automotive Service Excellence (A.S.E.) Areas in the National Automotive Technicians Education Foundation (N.A.T.E.F.) to prepare students for the A.S.E. mechanic certification tests.

CBC's Automotive faculty aim to bring innovative technology into the classroom and the lab. Automotive Tech students learn the basics of computer diagnosis as well as traditional tool usage as they participate in the entire repair process, evaluating, repairing and maintaining vehicles. For more information contact ext. 2770.

The department requires students achieve a minimum grade of 2.0 to be able to continue enrollment in major courses. The Associate of Applied Science degree also requires a minimum grade of 2.0 for each major course. A student who achieves a grade of 1.9 or lower in any required major courses may repeat that course once to attempt to achieve a grade of 2.0 or higher. Exceptions to this policy must be approved by the Dean of the program prior to enrollment and must be based on extenuating circumstances.

### Associate of Applied Science in Automotive Technology

PROFESSIONAL TECHNICAL

**Major Courses**

Course	No.	Course Title	Credits
AMT	110	Introduction to Automotive Technology . . . . .	4
AMT	1101	Introduction to Automotive Technology Lab . . . . .	10
AMT	120	Basic Electrical and Electronics . . . . .	2
AMT	1201	Basic Electrical and Electronics Lab . . . . .	5
AMT	123	Brake/Suspension I. . . . .	2
AMT	1231	Brake/Suspension I Lab . . . . .	5
AMT	130	Engine Performance . . . . .	2
AMT	1301	Engine Performance Lab . . . . .	5
AMT	133	Engine Repair and Rebuild . . . . .	2
AMT	1331	Engine Repair and Rebuild Lab . . . . .	5
AMT	1402	Automotive Internship . . . . .	7
<u>AMT</u>	<u>207</u>	<u>Material Science of Automotive Technology . . . . .</u>	<u>3</u>
AMT	220	Advanced Electrical and Electronics . . . . .	2
AMT	2201	Advanced Electrical and Electronics Lab . . . . .	5
AMT	223	Brakes/Suspension II. . . . .	2
AMT	2231	Brakes/Suspension II Lab . . . . .	5
AMT	230	Automatic Transmission . . . . .	2
AMT	2301	Automatic Transmission Lab . . . . .	4
AMT	233	Manual Transmission . . . . .	2

AMT	2331	Manual Transmission Lab. . . . .	5
AMT	240	Drivability Diagnostics . . . . .	2
AMT	2401	Drivability Diagnostics Lab . . . . .	5
AMT	243	Heating Ventilation and Air Conditioning Systems . . . . .	2
AMT	2431	Heating Ventilation and Air Conditioning Systems Lab . . . . .	5
<b>Subtotal. . . . .</b>			<b>93</b>

**General Education**

Course	No.	Course Title	Credits
ENG	103	Writing in the Workplace . . . . .	5
<u>MTH</u>	<u>111</u>	<u>Automotive Math . . . . .</u>	<u>5</u>
SPE	103	Workplace Communication. . . . .	3
<i>Psychology (select 3-5 credits)</i>			
PSY	100	Applied Psychology <u>or</u> . . . . .	3
PSY	101	General Psychology . . . . .	5
<b>Subtotal. . . . .</b>			<b>16-18</b>
<b>Total Credits Required. . . . .</b>			<b>109-111</b>

## Associate of Arts & Science in Business

TRANSFER DEGREE

**A. Communication (13 credits)**

Course	No.	Course Title	Credits
ENG	101	English Composition. . . . .	5
ENG	201	Advanced English Composition . . . . .	5
SPE	101	Speech Essentials <u>or</u> . . . . .	3
SPE	1021	Speech Essentials. . . . .	5

**Math Proficiency**

X

**B. Quantitative/Symbolic Reasoning (5 credits)**

Course	No.	Course Title	Credits
MTH	210	Basic Calculus. . . . .	5

**C. Humanities (15 credits)**

*Course selections must also meet the Humanities distribution requirements for the AA Degree.*

Humanities Electives <sup>2</sup> . . . . .	15
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**D. Social & Behavioral Science (15 credits)**

*Course selections must also meet the Social & Behavioral Science distribution requirements for the AA Degree.*

Course	No.	Course Title	Credits
EC	201	Principles of Economics I . . . . .	5
PSY	101	General Psychology <u>or</u> . . . . .	5
SOC	101	Introduction to Sociology . . . . .	5
Social Science Elective (see advisor for appropriate selection) <sup>3</sup> . . . . .			5

**E. Mathematical & Natural Science (15 credits)**

*Course selections must also meet the Mathematical & Natural Science distribution requirements for the AA Degree.<sup>4</sup>*

Course	No.	Course Title	Credits
		Lab Science . . . . .	5
		Science. . . . .	5
MTH	143	Basic Statistics . . . . .	5

**F. Health and Physical Education (3 credits)**

Selected from PE Activity Classes or Health (HE) Classes . . . . . 3

**G. Electives (40-55 credits)**

Course	No.	Course Title	Credits
EC	202	Principles of Economics II . . . . .	5
BA	251	Principles of Accounting . . . . .	5
BA	252	Principles of Accounting . . . . .	5
BA	253	Principles of Accounting . . . . .	5
BA	2545	Business Law <u>or</u> . . . . .	5

BA	2555	Business Law . . . . .	5
MTH	147	Finite Math . . . . .	5
MTH	154	Precalculus . . . . .	5
BA	250	Management Information Systems Business Elective <sup>6</sup> --Computer Science course .0-5 Foreign Language <sup>2</sup> . . . . .	0-10
<b>Total Credits Required. . . . .</b>			<b>106-121</b>

1. For WSU choose a 5-credit Speech 102
2. Students intending the international business major should consult their potential transfer institutions regarding the level of foreign language required for admission to the major—only five credits in world languages may apply to the Humanities requirement.
3. For WSU choose a Political Science Course
4. Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.
5. Check with your chosen 4-year college for appropriate choice, CBC does not have an equivalent required course for University of Washington.
6. Four institutions have requirements for admission to the business major that go beyond those specified above that students can meet by careful selection of the elective course:  
WSU Management Information Systems MIS that can be satisfied by CBC's BA 250, this course is required to certify for major; Gonzaga, PLU, and SPU have other computer course expectations, see advisor for information.

## Associate of Applied Science in Business Administration

PROFESSIONAL TECHNICAL

**Major Courses**

Course	No.	Course Title	Credits
BA	101	Introduction to Business . . . . .	5
BA	251	Principles of Accounting . . . . .	5
BA	252	Principles of Accounting . . . . .	5
BA	254	Business Law . . . . .	5
EC	201	Principles of Economics I . . . . .	5
EC	202	Principles of Economics II . . . . .	5

**Computer Science/Computer Applications (select 4-5 credits)**

CA/CS	100+	Computer Course(s) . . . . .	4-5
<b>Subtotal. . . . .</b>			<b>34-35</b>

**Major Support**

*Select 35 credits.*

*Options: You may pick optional classes from prepared lists of courses. See advisor to make your course selections.*

**Subtotal. . . . . 35**

**General Education**

Course	No.	Course Title	Credits
ENG	101	English Composition. . . . .	5
ENG	201	Advanced English Composition <u>or</u> . . . . .	5
ENG	205	Technical Writing . . . . .	5
MTH	106+	MTH 106 or above . . . . .	5
Science Course (Natural Science with lab) . . . . .			5

*Psychology or Sociology (select 5 credits)*

PSY	101	General Psychology <u>or</u> . . . . .	5
SOC	101	Introduction to Sociology. . . . .	5

*Speech (select 3-5 credits)*

SPE	101	Speech Essentials <u>or</u> . . . . .	3
<u>SPE</u>	<u>102</u>	<u>Speech Essentials or . . . . .</u>	<u>5</u>
SPE	110	Communication Behavior <u>or</u> . . . . .	3
<u>SPE</u>	<u>111</u>	<u>Communication Behavior or . . . . .</u>	<u>5</u>

<u>SPE 260</u>	<u>Multicultural Communications</u>	<u>5</u>
	Subtotal.	<u>28-30</u>
	Total Credits Required.	<u>97-100</u>

## Business Administration One-Year Certificate

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
BA 101	Introduction to Business	5
BA 251	Principles of Accounting	5
BA 254	Business Law	5
BA 271	Human Relations Business	5

#### Computer Science/Computer Applications (select 4-5 credits)

CA/CS 100+	Computer Course(s)	4-5
	Subtotal.	<u>24-25</u>

#### Major Support

(Select 23 credits)

Options: You may pick optional classes from prepared lists of courses. See advisor to make your course selections.

Subtotal. . . . .23

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition.	5
MTH 106+	MTH 106 or above	5

#### Psychology or Sociology courses (select 5 credits)

PSY 101	General Psychology <u>or</u>	5
SOC 101	Introduction to Sociology	5

#### Speech (select 3-5 credits)

SPE 101	Speech Essentials <u>or</u>	3
<u>SPE 102</u>	<u>Speech Essentials or</u>	<u>5</u>
SPE 110	Communication Behavior <u>or</u>	3
<u>SPE 111</u>	<u>Communication Behavior or</u>	<u>5</u>
<u>SPE 260</u>	<u>Multicultural Communications</u>	<u>5</u>

Subtotal. . . . .18-20

Total Credits Required. . . . .65-68

## Associate of Applied Science in Help Desk Technician

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers (minimum grade 2.5) <u>or</u>	4
<u>CS 101</u>	<u>Introduction to Computer and Information Technology</u>	<u>5</u>
CS 102*	Visual Basic 1 (minimum grade 2.5)	5
CS 106	Database Systems.	5
CS 109	PC Hardware 1	5
CS 110	<u>Windows Operating Systems</u>	5
CS 122	PC Hardware 2	5
CS 224	<u>Networking Essentials</u>	5

Subtotal. . . . .34-35

#### Major Support

Course No.	Course Title	Credits
CA 103	Presentations Graphics Applications	2
CA 124	Intermediate Spreadsheet Applications	2

CA 172	Word Processing	5
CS 114	HTML (Internet Publishing 1)	5
CS 150	Computer Security	5
CS 1952	Work-Based Learning 1	1-5
CS 207	Word Implementation	5
CS 208	Advanced Spreadsheets	5

#### Computer Science Options (select 5 credits)

CS 227	Windows Professional <u>or</u>	5
CS 223	<u>Unix/Linux</u>	5

#### Select 10 credits from the following courses:

CS 202	Visual Basic 2 <u>or</u>	5
CS 203	Advanced Graphics Software and Multimedia <u>or</u>	5
CS 206	Database Design	5

Subtotal. . . . .45-49

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition.	5
MTH 106+	MTH 106 or above	5

#### Psychology or Sociology (select 5 credits)

PSY 101	General Psychology <u>or</u>	5
SOC 101	Introduction to Sociology	5

#### Speech (select 3-5 credits)

SPE 101	Speech Essentials <u>or</u>	3
SPE 102	Speech Essentials <u>or</u>	5
SPE 110	Communication Behavior <u>or</u>	3
SPE 111	Communication Behavior <u>or</u>	5
<u>SPE 260</u>	<u>Multicultural Communications</u>	<u>5</u>

Subtotal. . . . .18-20

Total Credits Required. . . . .97-104

Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.

## Associate of Applied Science in Database Administrator

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers (minimum grade 2.5) <u>or</u>	4
<u>CS 101</u>	<u>Introduction to Computer and Information Technology</u>	<u>5</u>
CS 102*	Visual Basic 1 (minimum grade 2.5)	5
CS 106	Database Systems.	5
CS 109	PC Hardware 1	5
CS 110	<u>Windows Operating Systems</u>	5
CS 122	PC Hardware 2	5
CS 224	<u>Networking Essentials</u>	5

Subtotal. . . . .34-35

#### Major Support

Course No.	Course Title	Credits
CS 114	HTML (Internet Publishing 1)	5
CS 202	Visual Basic 2	5
CS 206	Database Design	5
CS 219	Active Server Pages (ASP) Internet Publishing.	5
CS 221	<u>SQL Server Administration</u>	5
CS 225	<u>SQL Server Programming</u>	5
CS 228	Windows Server	5
CS 229	Webmaster	5

Subtotal. . . . .40

## General Education

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
MTH 106+	MTH 106 or above. . . . .	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <u>or</u> . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u> . . . . .	3
SPE 102	Speech Essentials <u>or</u> . . . . .	5
SPE 110	Communication Behavior <u>or</u> . . . . .	3
SPE 111	Communication Behavior <u>or</u> . . . . .	5
SPE 260	<u>Multicultural Communications</u> . . . . .	5

Subtotal. . . . 18-20

Total Credits Required. . . . 92-95

Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.

## Associate of Applied Science in Internet Specialist

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers (minimum 2.5 grade) <u>or</u> . . . . .	4
<u>CS 101</u>	<u>Introduction to Computer and Information Technology</u> . . . . .	5

CS 102*	Visual Basic 1 (minimum 2.5 grade). . . . .	5
CS 106	Database Systems. . . . .	5
CS 109	PC Hardware 1. . . . .	5
CS 110	<u>Windows Operating Systems</u> . . . . .	5
CS 122	PC Hardware 2. . . . .	5
CS 224	<u>Networking Essentials</u> . . . . .	5

Subtotal. . . . 34-35

#### Major Support

Course No.	Course Title	Credits
CS 114	HTML (Internet Publishing 1). . . . .	5
CS 115	Java Script/CSS (Internet Publishing 2). . . . .	5
CS 203	Advanced Graphics Software and Multimedia. . . . .	5
CS 218	ASP.NET <u>or</u> . . . . .	5
CS 219	Active Server Pages (ASP) Internet Publishing. . . . .	5
CS 161	C++1 <u>or</u> . . . . .	5
CS 216	XML (Internet Publishing III). . . . .	5
CS 243	Web Animation. . . . .	5

*Select 10 credits from the following courses:*

CS 213	Advanced Internet. . . . .	5
CS 223	<u>Unix/Linux</u> . . . . .	5
CS 228	Windows Server. . . . .	5
CS 229	Webmaster. . . . .	5

Subtotal. . . . 40

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
MTH 106+	MTH 106 or above. . . . .	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <u>or</u> . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u> . . . . .	3
SPE 102	Speech Essentials <u>or</u> . . . . .	5

SPE 110	Communication Behavior <u>or</u> . . . . .	3
SPE 111	Communication Behavior <u>or</u> . . . . .	5
<u>SPE 260</u>	<u>Multicultural Communications</u> . . . . .	5

Subtotal. . . . 18-20

Total Credits Required. . . . 92-95

Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.

## Associate of Applied Science in Multimedia

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers <u>or</u> . . . . .	4
<u>CS 101</u>	<u>Introduction to Computer and Information Technology</u> . . . . .	5

CS 102*	Visual Basic 1. . . . .	5
CS 110	<u>Windows Operating Systems</u> . . . . .	5
CS 114	HTML(Internet Publishing 1). . . . .	5
CS 115	Java Script/CSS (Internet Publishing 2). . . . .	5
CS 203	Advanced Graphics Software and Multimedia. . . . .	5
CS 243	Web Animation. . . . .	5

Subtotal. . . . 34-35

#### Major Support

Course No.	Course Title	Credits
ART 110	Introduction to Art. . . . .	5
ART 111*	Design 1. . . . .	5
ART 1121	3D Design II. . . . .	5
ART 2011	Photography I. . . . .	3
ART 2021	Photography II. . . . .	3
ART 2081	Digital Photography. . . . .	2
ART 211	Graphic Design I. . . . .	5
ART 212	Graphic Design II. . . . .	5
ART 2411	Illustration I. . . . .	3
ART 2421	Illustration II. . . . .	3
ART 2431	Illustration III. . . . .	3

Subtotal. . . . 42

#### Business Administration (6-20 credits)

Course No.	Course Title	Credits
BA 271	Human Relations Business. . . . .	5
BA 267	Marketing Special Projects. . . . .	1-15

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
MTH 106+	MTH 106 or above. . . . .	5

*Human Relations (select 5 credits)*

PSY 101	General Psychology <u>or</u> . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u> . . . . .	3
SPE 102	Speech Essentials <u>or</u> . . . . .	5
SPE 110	Communication Behavior <u>or</u> . . . . .	3
SPE 111	Communication Behavior <u>or</u> . . . . .	5
<u>SPE 260</u>	<u>Multicultural Communications</u> . . . . .	5

Subtotal. . . . 18-20

Total Credits Required. . . 100-117

Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.

## Associate of Applied Science in Network Administrator

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers (minimum grade 2.5) <b>or</b> . . . . .	4
<b>CS 101</b>	<b><u>Introduction to Computer and Information Technology</u></b> . . . . .	<b>5</b>
CS 102*	Visual Basic 1 (minimum grade 2.5) . . . . .	5
CS 106	Database Systems. . . . .	5
CS 109	PC Hardware 1 . . . . .	5
CS 110	<u>Windows Operating Systems</u> . . . . .	5
CS 122	PC Hardware 2 . . . . .	5
CS 224	<u>Networking Essentials</u> . . . . .	5
<b>Subtotal. . . . .</b>		<b>34-35</b>

#### Major Support

Course No.	Course Title	Credits
CS 150	Computer Security . . . . .	5
CS 222	<u>Novell</u> . . . . .	5
CS 223	<u>Unix/Linux</u> . . . . .	5
CS 228	Windows Server . . . . .	5
CS 230	Active Directory . . . . .	5

#### Select 15 credits from the following courses:

CS 227	Windows Professional . . . . .	5
CS 231	Network Infrastructure . . . . .	5
CS 232	Network Security. . . . .	5
CS 233	UNIX Administration . . . . .	5
CS 221	<u>SQL Server Administration</u> . . . . .	5
CS 225	<u>SQL Server Programming</u> . . . . .	5
CS 229	Webmaster . . . . .	5
<b>Subtotal. . . . .</b>		<b>40</b>

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
MTH 106+	MTH 106 or above . . . . .	5

#### Psychology or Sociology (select 5 credits)

PSY 101	General Psychology <b>or</b> . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

#### Speech (select 3-5 credits)

SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials <b>or</b> . . . . .	5
SPE 110	Communication Behavior <b>or</b> . . . . .	3
SPE 111	Communication Behavior <b>or</b> . . . . .	5
<b>SPE 260</b>	<b><u>Multicultural Communications</u></b> . . . . .	<b>5</b>

**Subtotal. . . . .18-20**

**Total Credits Required. . . . .92-95**

Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.

## Associate of Applied Science- Programmer

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
CA 100	Introduction to Microcomputers (minimum grade 2.5) <b>or</b> . . . . .	4
<b>CS 101</b>	<b><u>Introduction to Computer and Information Technology</u></b> . . . . .	<b>5</b>
CS 102*	Visual Basic 1 (minimum grade 2.5) . . . . .	5
CS 106	Database Systems. . . . .	5
CS 109	PC Hardware 1 . . . . .	5
CS 110	<u>Windows Operating System</u> . . . . .	5
CS 122	PC Hardware 2 . . . . .	5
CS 224	<u>Networking Essentials</u> . . . . .	5
<b>Subtotal. . . . .</b>		<b>34-35</b>

#### Major Support

Course No.	Course Title	Credits
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#### Select 45 credits from the following courses:

CS 161*	C++1 . . . . .	5
CS 162*	C++2. . . . .	5
CS 171	C# 1 . . . . .	5
CS 172	C# 2 . . . . .	5
CS 202	Visual Basic 2 . . . . .	5
CS 206	Database Design . . . . .	5
CS 212	Visual Basic 3 . . . . .	5
CS 221	<u>SQL Server Administration</u> . . . . .	5
CS 223	<u>Unix/Linux</u> . . . . .	5
CS 260	Data Structures in C++ . . . . .	5
CS 261	<u>Visual C++</u> . . . . .	5
<b>CS 262</b>	<b><u>Game Programming Design</u></b> . . . . .	<b>5</b>
CS 270	Data Structures in C# . . . . .	5
<b>Subtotal. . . . .</b>		<b>45</b>

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
MTH 106+	MTH 106 or above . . . . .	5

#### Psychology or Sociology (select 5 credits)

PSY 101	General Psychology <b>or</b> . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

#### Speech (select 3-5 credits)

SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials <b>or</b> . . . . .	5
SPE 110	Communication Behavior <b>or</b> . . . . .	3
SPE 111	Communication Behavior <b>or</b> . . . . .	5
<b>SPE 260</b>	<b><u>Multicultural Communications</u></b> . . . . .	<b>5</b>

**Subtotal. . . . .18-20**

**Total Credits Required. . . . .97-100**

Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.

### C#.Net Programming One-Year Certificate

PROFESSIONAL TECHNICAL

**Major Courses**

Course No.	Course Title	Credits
CS 171	C# 1	5
CS 172	C# 2	5
<u>CS 262</u>	<u>Game Programming Design</u>	<u>5</u>
CS 270	Data Structures in C#	5
		<b>Subtotal. . . . .20</b>

**Major Support**

Course No.	Course Title	Credits
CS 106	Database Systems.	5
CS 206	Database Design	5
CS 221	<u>SQL Server Administration or</u>	5
CS 223	<u>Unix/Linux</u>	5
		<b>Subtotal. . . . .15</b>

**General Education**

Course No.	Course Title	Credits
ENG 101	English Composition.	5
MTH 106+	MTH 106 or above	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <u>or</u>	5
SOC 101	Introduction to Sociology	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u>	3
SPE 102	Speech Essentials <u>or</u>	5
SPE 110	Communication Behavior <u>or</u>	3
SPE 111	Communication Behavior <u>or</u>	5
<u>SPE 260</u>	<u>Multicultural Communications</u>	<u>5</u>

**Subtotal. . . . .18-20**

**Total Credits Required. . . . .53-55**

### C++ Programming One-Year Certificate

PROFESSIONAL TECHNICAL

**Major Courses**

Course No.	Course Title	Credits
CS 161	C++1	5
CS 162	C++2	5
CS 260	Data Structures in C++	5
CS 261	<u>Visual C++ or</u>	5
<u>CS 262</u>	<u>Game Programming Design</u>	<u>5</u>
		<b>Subtotal. . . . .20</b>

**Major Support**

Course No.	Course Title	Credits
CS 106	Database Systems.	5
CS 206	Database Design	5
CS 221	<u>SQL Server Administration or</u>	5
CS 223	<u>Unix/Linux</u>	5
		<b>Subtotal. . . . .15</b>

**General Education**

Course No.	Course Title	Credits
ENG 101	English Composition.	5
MTH 106+	MTH 106 or above	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <u>or</u>	5
SOC 101	Introduction to Sociology	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u>	3
SPE 102	Speech Essentials <u>or</u>	5
SPE 110	Communication Behavior <u>or</u>	3
SPE 111	Communication Behavior <u>or</u>	5
<u>SPE 260</u>	<u>Multicultural Communications</u>	<u>5</u>

**Subtotal. . . . .18-20**

**Total Credits Required. . . . .58-60**

### VB.Net Programming One-Year Certificate

PROFESSIONAL TECHNICAL

**Major Courses**

Course No.	Course Title	Credits
CS 102*	Visual Basic 1	5
CS 202	Visual Basic 2	5
CS 212	Visual Basic 3	5
		<b>Subtotal. . . . .15</b>

**Major Support**

Course No.	Course Title	Credits
CS 106	Database Systems.	5
CS 206	Database Design	5
CS 221	<u>SQL Server Administration</u>	5
CS 110	<u>Windows Operating Systems or</u>	5
CS 223	<u>Unix/Linux</u>	5
		<b>Subtotal. . . . .20</b>

**General Education**

Course No.	Course Title	Credits
ENG 101	English Composition.	5
MTH 106+	MTH 106 or above	5

*Psychology or Sociology (select 5 credits)*

PSY 101	General Psychology <u>or</u>	5
SOC 101	Introduction to Sociology	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u>	3
SPE 102	Speech Essentials <u>or</u>	5
SPE 110	Communication Behavior <u>or</u>	3
SPE 111	Communication Behavior <u>or</u>	5
<u>SPE 260</u>	<u>Multicultural Communications</u>	<u>5</u>

**Subtotal. . . . .18-20**

**Total Credits Required. . . . .53-55**

*Note: \*MTH 95 with min. grade 2.0 is prerequisite for all programming classes. Students must receive min. 2.0 in all CS courses, except as noted above.*

### Associate of Applied Science in Criminal Justice

#### PROFESSIONAL TECHNICAL

##### Major Courses

Course No.	Course Title	Credits
CJ 131	Introduction to Criminal Justice . . . . .	3
CJ 132	Criminal Law and Procedure . . . . .	5
CJ 134	Organization/Administration. . . . .	3
CJ 135	Traffic Control . . . . .	3
CJ 136	Delinquent Behavior/Youth. . . . .	3
CJ 137	Constitutional Law . . . . .	5
CJ 232	Criminal Investigation . . . . .	5
CJ 234	Criminal Evidence . . . . .	3
CJ 242	Introduction to Forensic Science. . . . .	5
CJ 222	Alcohol/Drug Pharmacology/Physiology . . . . .	3
<b>Subtotal. . . . .</b>		<b>38</b>

##### General Education

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
<i>English (select 5 credits)</i>		
ENG 201	Advanced English Composition <b>or</b> . . . . .	5
ENG 205	Technical Writing . . . . .	5
	Social Science Courses. . . . .	15
*MTH 106+	MTH 106 or above . . . . .	5
<i>Speech (select 3-5 credits)</i>		
SPE 101	Speech Essentials <b>or</b> . . . . .	3
<u>SPE 102</u>	<u>Speech Essentials or</u> . . . . .	<u>5</u>
SPE 110	Communication Behavior <b>or</b> . . . . .	3
<u>SPE 111</u>	<u>Communication Behavior or</u> . . . . .	<u>5</u>
<u>SPE 260</u>	<u>Multicultural Communications</u> . . . . .	<u>5</u>
CA/CS 100+	Computer Science Course(s) . . . . .	4-5
	Science. . . . .	10
	Humanities . . . . .	15

\*To be approved by department

Subtotal. . . . . 62-65

Total Credits Required. . . 100-103

#### NEW

### Abdomen and Small Parts Sonography Certificate

##### Major Courses

###### General Sonography Core Courses

Course No.	Course Title	Credits
DUTEC 105	Pathophysiology I . . . . .	3
DUTEC 106	Pathophysiology II . . . . .	3
DUTEC 107	Human Cross-Sectional Anatomy . . . . .	7
DUTEC 170	Ultrasound Physics & Instrumentation I . . . . .	3
DUTEC 171	Ultrasound Physics & Instrumentation II . . . . .	3
DUTEC 135	Ultrasound Equipment I. . . . .	3
DUTEC 145	Ultrasound Equipment II . . . . .	4
DUTEC 165	Ultrasound Equipment III. . . . .	3
<b>Subtotal. . . . .</b>		<b>29</b>

##### Support Courses

###### Abdomen and Small Parts Sonography Support Courses

Course No.	Course Title	Credits
DUTEC 110	Ultrasound I: Abdominal Scanning & Techniques . . . . .	4
DUTEC 130	Ultrasound III: Small Parts/Intraoperative Techniques . . . . .	3
<b>Subtotal. . . . .</b>		<b>7</b>

##### Practicum Courses

Course No.	Course Title	Credits
DUTEC 210	Clinical Practicum I . . . . .	10
DUTEC 220	Clinical Practicum II. . . . .	10
DUTEC 230	Clinical Practicum III . . . . .	10
<b>Subtotal. . . . .</b>		<b>30</b>

##### General Education

###### English (select 5 credits)

Course No.	Course Title	Credits
ENG 101	English Composition <b>or</b> . . . . .	5
ENG 103	Writing in the Workplace . . . . .	5
MTH 100+	Above MTH 100 . . . . .	5

###### Psychology or Sociology (select 3-5 credits)

PSY 100	Applied Psychology <b>or</b> . . . . .	3
PSY 101	General Psychology <b>or</b> . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

###### Speech (select 3-5 credits)

SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials <b>or</b> . . . . .	5
SPE 110	Communication Behavior <b>or</b> . . . . .	3
SPE 111	Communication Behavior <b>or</b> . . . . .	5
SPE 260	Multicultural Communications. . . . .	5

Subtotal. . . . . 16-20

Total Credits Required. . . . 82-86

#### NEW

### OB/GYN Sonography Certificate

##### Major Courses

###### General Sonography Core Courses

Course No.	Course Title	Credits
DUTEC 105	Pathophysiology I . . . . .	3
DUTEC 106	Pathophysiology II . . . . .	3
DUTEC 107	Human Cross-Sectional Anatomy . . . . .	7
DUTEC 170	Ultrasound Physics & Instrumentation I . . . . .	3
DUTEC 171	Ultrasound Physics & Instrumentation II. . . . .	3
DUTEC 135	Ultrasound Equipment I. . . . .	3
DUTEC 145	Ultrasound Equipment II . . . . .	4
DUTEC 165	Ultrasound Equipment III. . . . .	3
<b>Subtotal. . . . .</b>		<b>29</b>

##### Support Courses

###### OB/GYN Sonography Support Courses

Course No.	Course Title	Credits
DUTEC 120	Ultrasound II: Obstetrics & Gynecological Techniques . . . . .	5
DUTEC 180	Advanced Studies: General Ultrasound . . . . .	3
<b>Subtotal. . . . .</b>		<b>8</b>

##### Practicum Courses

Course No.	Course Title	Credits
DUTEC 210	Clinical Practicum I . . . . .	10
DUTEC 220	Clinical Practicum II. . . . .	10
DUTEC 230	Clinical Practicum III . . . . .	10
<b>Subtotal. . . . .</b>		<b>30</b>

### General Education

*English (select 5 credits)*

Course No.	Course Title	Credits
ENG 101	English Composition <u>or</u> . . . . .	5
ENG 103	Writing in the Workplace . . . . .	5
MTH 100+	Above MTH 100 . . . . .	5

*Psychology or Sociology (select 3-5 credits)*

PSY 100	Applied Psychology <u>or</u> . . . . .	3
PSY 101	General Psychology <u>or</u> . . . . .	5
SOC 101	Introduction to Sociology . . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <u>or</u> . . . . .	3
SPE 102	Speech Essentials <u>or</u> . . . . .	5
SPE 110	Communication Behavior <u>or</u> . . . . .	3
SPE 111	Communication Behavior <u>or</u> . . . . .	5
SPE 260	Multicultural Communications. . . . .	5

Subtotal. . . . 16-20

Total Credits Required. . . . 83-87

### NEW

## Breast Sonography Short-Term Certificate

#### Major Courses

Course No.	Course Title	Credits
DUTEC 250	Ultrasound Physics for Mammographers. . . . .	3
DUTEC 251	Breast Ultrasound for Mammographers. . . . .	3
DUTEC 252	Ultrasound Equipment/Knobology for Mammographers . . . . .	2

Subtotal. . . . . 8

#### Practicum Courses

Course No.	Course Title	Credits
DUTEC 210	Clinical Practicum I . . . . .	10
DUTEC 220	Clinical Practicum II. . . . .	10

Subtotal. . . . . 20

Total Credits Required. . . . . 28

### NEW

## Breast Sonography for Mammographers Short-Term Certificate

#### Major Courses

Course No.	Course Title	Credits
DUTEC 250	Ultrasound Physics for Mammographers. . . . .	3
DUTEC 251	Breast Ultrasound for Mammographers. . . . .	3
DUTEC 252	Ultrasound Equipment/Knobology for Mammographers . . . . .	2

Subtotal. . . . . 8

#### Practicum Courses

Course No.	Course Title	Credits
DUTEC 210	Clinical Practicum I . . . . .	10
DUTEC 220	Clinical Practicum II. . . . .	10

Subtotal. . . . . 20

Total Credits Required. . . . . 28

### NEW

## Adult Echocardiography Sonography Certificate

#### Major Courses

*General Sonography Core Courses*

Course No.	Course Title	Credits
DUTEC 107	Human Cross-Sectional Anatomy . . . . .	7
DUTEC 170	Ultrasound Physics & Instrumentation I . . . . .	3
DUTEC 171	Ultrasound Physics & Instrumentation II. . . . .	3
DUTEC 135	Ultrasound Equipment I. . . . .	3
DUTEC 145	Ultrasound Equipment II . . . . .	4
DUTEC 165	Ultrasound Equipment III. . . . .	3

Subtotal. . . . . 23

#### Support Courses

*Adult Echocardiography Sonography Support Courses*

Course No.	Course Title	Credits
DUTEC 150	Basic Echocardiography . . . . .	3
DUTEC 155	Ultrasound IV: Echocardiography . . . . .	3
DUTEC 112	Pathophysiology III. . . . .	3
DUTEC 113	Pathophysiology IV . . . . .	3
DUTEC 181	Advanced Studies: Echo-Vascular . . . . .	3

Subtotal. . . . . 15

#### Practicum Courses

Course No.	Course Title	Credits
DUTEC 210	Clinical Practicum I . . . . .	10
DUTEC 220	Clinical Practicum II. . . . .	10
DUTEC 230	Clinical Practicum III . . . . .	10

Subtotal. . . . . 30

#### General Education

*English (select 5 credits)*

Course No.	Course Title	Credits
ENG 101	English Composition or . . . . .	5
ENG 103	Writing in the Workplace . . . . .	5
MTH 100+	Above MTH 100 . . . . .	5

*Psychology or Sociology (select 3-5 credits)*

PSY 100	Applied Psychology or . . . . .	3
PSY 101	General Psychology or . . . . .	5
SOC 101	Introduction to Sociology. . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials or . . . . .	3
SPE 102	Speech Essentials or . . . . .	5
SPE 110	Communication Behavior or . . . . .	3
SPE 111	Communication Behavior or . . . . .	5
SPE 260	Multicultural Communications. . . . .	5

Subtotal. . . . 16-20

Total Credits Required. . . . 84-88



**NEW**

### Vascular Sonography Certificate

**Major Courses**

*General Sonography Core Courses*

Course No.	Course Title	Credits
DUTEC 107	Human Cross-Sectional Anatomy . . . . .	7
DUTEC 170	Ultrasound Physics & Instrumentation I . . . . .	3
DUTEC 171	Ultrasound Physics & Instrumentation II . . . . .	3
DUTEC 135	Ultrasound Equipment I . . . . .	3
DUTEC 145	Ultrasound Equipment II . . . . .	4
DUTEC 165	Ultrasound Equipment III . . . . .	3
<b>Subtotal . . . . .</b>		<b>23</b>

**Support Courses**

*Vascular Sonography Support Courses*

Course No.	Course Title	Credits
DUTEC 160	Ultrasound V: Peripheral Vascular Scanning Techniques . . . . .	3
DUTEC 112	Pathophysiology III . . . . .	3
DUTEC 113	Pathophysiology IV . . . . .	3
DUTEC 181	Advanced Studies: Echo-Vascular . . . . .	3
<b>Subtotal . . . . .</b>		<b>12</b>

**Practicum Courses**

Course No.	Course Title	Credits
DUTEC 210	Clinical Practicum I . . . . .	10
DUTEC 220	Clinical Practicum II . . . . .	10
DUTEC 230	Clinical Practicum III . . . . .	10
<b>Subtotal . . . . .</b>		<b>30</b>

**General Education**

*English (select 5 credits)*

Course No.	Course Title	Credits
ENG 101	English Composition <b>or</b> . . . . .	5
ENG 103	Writing in the Workplace . . . . .	5
MTH 100+	Above MTH 100 . . . . .	5

*Psychology or Sociology (select 3-5 credits)*

PSY 100	Applied Psychology <b>or</b> . . . . .	3
PSY 101	General Psychology <b>or</b> . . . . .	5
SOC 101	Introduction to Sociology . . . . .	5

*Speech (select 3-5 credits)*

SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials <b>or</b> . . . . .	5
SPE 110	Communication Behavior <b>or</b> . . . . .	3
SPE 111	Communication Behavior <b>or</b> . . . . .	5
SPE 260	Multicultural Communications . . . . .	5
<b>Subtotal . . . . .</b>		<b>16-20</b>

**Total Credits Required . . . . . 81-85**

### Associate of Arts & Science in Elementary Education (DTA/MRP)

**TRANSFER DEGREE**

**A. Communication (13 credits)**

Course No.	Course Title	Credits
ENG 101	English Composition . . . . .	5
ENG 201	Advanced English Composition . . . . .	5
SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials . . . . .	5

**Math Proficiency**

(Refer to Placement Test)

**1. Intermediate Algebra Proficiency requirement. Must do one of**

*the following:*

*\*Pass Intermediate Algebra (MTH 095 or MTH 098) with a 2.0 or better.*

*\*Pass a Math class that has an Intermediate Algebra prerequisite.*

*\*Place into any Math course MTH 113 or above via COMPASS.*

**B. Quantitative/Symbolic Reasoning (5 credits)**

Course No.	Course Title	Credits
MTH 123	Algebra, Probability and Statistics for Elementary Teachers . . . . .	5

**C. Humanities (15 credits)**

*15 credits in Humanities required including 5 credits of World Civilization, 5 credits of Diversity, and 5 credits of Other.*

*World Civilization (5 credits):*

Course No.	Course Title	Credits
HIS 101	World Civilizations <b>or</b> . . . . .	5
HIS 102	World Civilizations <b>or</b> . . . . .	5
HIS 103	World Civilizations . . . . .	5

*Diversity (5 credits):*

ICS 120	Survey of Hispanic Culture <b>or</b> . . . . .	5
ICS 125	Native American Culture <b>or</b> . . . . .	5
LIT 160	Women's Literature <b>or</b> . . . . .	5
LIT 180	Multicultural Literature <b>or</b> . . . . .	5
LIT 280	Gay and Lesbian Studies <b>or</b> . . . . .	5
WS 155	Women's Cultural Heritage <b>or</b> . . . . .	5
WS 160	Women in Literature and Art . . . . .	5

*Other (5 credits):*

ART 110	Introduction to Art <b>or</b> . . . . .	5
MUS 115	Music Appreciation <b>or</b> . . . . .	5
THA 115	Introduction to Theatre . . . . .	5

**D. Social & Behavioral Science (15 credits)**

*15 credits in Social & Behavioral Sciences required including 5 credits of Psychology, 5 credits of U.S. History, and 5 credits from Economics, Geography or Political Science.*

Course No.	Course Title	Credits
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*Psychology (5 credits):*

PSY 101	General Psychology . . . . .	5
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*U. S. History (5 credits):*

HIS 104	U.S. History <b>or</b> . . . . .	5
HIS 105	U.S. History . . . . .	5

*Economics, Geography, Political Science (5 credits):*

EC 201	Principles of Economics I <b>or</b> . . . . .	5
EC 202	Principles of Economics II <b>or</b> . . . . .	5
GEO 150	Cultural Geography <b>or</b> . . . . .	5
PS 100	American Government <b>or</b> . . . . .	5
PS 104	State and Local Government . . . . .	5

**E. Mathematical & Natural Science (15 credits)**

*15 credits in Natural Science required, including 5 credits of Biological sciences, 5 credits Geology or Earth Science and 5 credits of Physical sciences. Two (2) courses must be a laboratory science.*

Course No.	Course Title	Credits
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*Biological Science (5 credits):*

BIO 100	General Biology . . . . .	4
BIO 1001	General Biology Lab . . . . .	1
BIO 110	Human Biology . . . . .	4
BIO 1101	Human Biology Lab . . . . .	1

*Geology or Earth Science (5 credits):*

ENVS 100	Environmental Science . . . . .	4
ENVS 1001	Environmental Science Lab . . . . .	1
GEL 101	Physical Geology I . . . . .	4
GEL 1011	Physical Geology Lab I . . . . .	1
GEO 101*	Physical Geography (*No Lab) . . . . .	5

**Physical Science (5 credits):**

AST 101	Astronomy . . . . .	4
AST 1011	Astronomy Lab . . . . .	1
CHM 100	Survey of Chemistry . . . . .	4
CHM 1001	Survey of Chemistry Lab . . . . .	1
CHM 110	General Chemistry/Health Science . . . . .	4
CHM 1101	General Chemistry/Health Science Lab. . . . .	1
PHY 100	Concepts of Physics . . . . .	4
PHY 1001	Concepts of Physics Lab. . . . .	1

**F. Health and Physical Education (3 credits)**

Course No.	Course Title	Credits
HE 230	First-Aid Safety . . . . .	3

**G. Electives (28 credits)**

Course No.	Course Title	Credits
<u>CS 101</u>	<u>Introduction to Computer &amp; Information Technology . . . . .</u>	<u>5</u>
ED 101	Introduction to Education. . . . .	4
ED 1972	Field Experience . . . . .	1-2
ED 201	Introduction to Multicultural Education . . . . .	3
MTH 121	Structure of Elementary Math . . . . .	5
MTH 122	Informal Geometry/Elementary Teachers . . . . .	5
PSY 240	Developmental Psychology . . . . .	5
<b>Total Credits Required. . . . .</b>		<b>94-97</b>

**Important:**

\*Required minimum 94 credits

\*Required cumulative GPA 2.0

\*A minimum of 30 credits CBC

**Notes:**

1. The Associate in Elementary Education DTA/MRP will be issued only to students who have earned a cumulative grade point average of at least 2.0.
2. Students should be advised that most teacher prep programs require a GPA of 2.5 to 3.0 for admission.
3. A minimum of 30 hours of K-8 classroom experience must be included during the degree program (ED 1972).
4. Students should be able to demonstrate computer literacy in software programs including Word Processing, PowerPoint, spreadsheets, in addition to being proficient on the Internet. These skills should be demonstrated through a portfolio of files gathered during their educational course work (CS 101).
5. Although not required for this degree, students should be advised they must take the WEST-B before completing their community college course work in order to apply to teacher preparation programs.

## Computer Aided Drafting One-Year Certificate

**PROFESSIONAL TECHNICAL**

**Major Courses**

Course No.	Course Title	Credits
ENT 1711	Technical Drafting . . . . .	3
ENT 267	AutoCAD I & . . . . .	2
ENT 2671	AutoCAD I Lab . . . . .	1
ENT 268	AutoCAD II & . . . . .	2
ENT 2681	AutoCAD II Lab . . . . .	1

ENT Electives: 15 credits required, a minimum of 9 credits must be CAD electives and a maximum of 6 credits may be other designated ENT classes.

Course No.	Course Title	Credits
<b>CAD: (select a minimum of 9 credits)</b>		
ENT 269	Visual LISP & . . . . .	2
ENT 2691	Visual LISP Lab. . . . .	1
ENT 270	3-D & . . . . .	2
ENT 2701	3-D Lab . . . . .	1

ENT 271	Drawing Production & . . . . .	2
ENT 2711	Drawing Production Lab . . . . .	1
ENT 272	Advanced 3-D & . . . . .	2
ENT 2721	Advanced 3-D Lab . . . . .	1
ENT 273	Advanced AutoCAD Applications & . . . . .	2
ENT 2731	Advanced AutoCAD Applications Lab . . . . .	1
ENT 274	Architectural Residential Drawing & . . . . .	2
ENT 2741	Architectural Residential Drawing Lab . . . . .	1
ENT 281	MicroStation I for the AutoCAD User & . . . . .	2
ENT 2811	MicroStation I for the AutoCAD User Lab . . . . .	1
ENT 282	MicroStation II for the AutoCAD User & . . . . .	2
ENT 2821	MicroStation II for the AutoCAD User Lab. . . . .	1

**Other ENT electives:**

(must meet course prerequisites.)

Course No.	Course Title	Credits
ENT 111	Introduction to Engineering . . . . .	5
ENT 121	Engineering Fundamentals &. . . . .	3
ENT 1211	Engineering Fundamentals Lab. . . . .	1
ENT 122	Materials. . . . .	3
ENT 134	Surveying &. . . . .	3
ENT 1341	Surveying Lab. . . . .	3
ENT 1721	Technical Drafting . . . . .	3
ENT 2191	Construction Estimating . . . . .	1
ENT 229	Construction Specifications. . . . .	2
ENT 238	Electricity . . . . .	5
<b>Subtotal. . . . .</b>		<b>24</b>

**General Education**

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
MTH 113	Geometry/Trigonometry . . . . .	5

**Human Relations (select 3-5 credits)**

PSY 100	Applied Psychology <u>or</u> . . . . .	3
PSY 101	General Psychology <u>or</u> . . . . .	5
PSY 201	Social Psychology <u>or</u> . . . . .	5
BA 271	Human Relations Business . . . . .	5

Students should select one class from each of the following areas to meet the program requirement:

**Speech (select 3-5 credits)**

SPE 101	Speech Essentials <u>or</u> . . . . .	3
SPE 102	Speech Essentials <u>or</u> . . . . .	5
SPE 110	Communication Behavior <u>or</u> . . . . .	3
SPE 111	Communication Behavior <u>or</u> . . . . .	5
SPE 260	Multicultural Communications. . . . .	5
<b>Subtotal. . . . .</b>		<b>16-20</b>

**Total Credits Required. . . . . 40-44**

**NEW**

## Health Sciences

The Health Sciences (HSCI) courses provide both specialized multi-healthcare education and certification as well as general courses to meet a broad spectrum of healthcare program needs.

## Horticulture

Horticulture is the science and art of growing plants for food, personal enjoyment, and environmental enhancement. Horticulture includes the production, marketing, and utilization of fruit and vegetable products that improve health and well-being, shade trees that reduce the urban heat island effect, bedding plants that increase business profits, and interior plants that reduce stress and enhance productivity. See also Agriculture, Agricultural Food Systems and Animal Science for courses required to earn an Associates of Arts and Science with an Emphasis in Agri-Business.

**NEW**

## Latino & Latin American Studies

The primary objective of the course is to familiarize students with the major phases in colonial Latin American history and to study, analyze, and understand the most important issues that characterized and shaped this period. Some of the topics we will examine include: the conquest of the indigenous people, the imposition of Catholicism, the insertion of Latin America into the world market, the introduction and development of African slavery, independence movements, and the creation of new societies resulting from the mixing of indigenous, Iberian, and African cultures.

**NEW**

## Associate of Arts & Science with an Emphasis in Latino & Latin American Studies

TRANSFER DEGREE

### Option C

#### A. Communication

(10 credits in English, plus 3 credits in Speech)

Course No.	Course Title	Credits
ENG 101	English Composition . . . . .	5
ENG 201	Advanced English Composition <b>or</b> . . . . .	5
ENG 205	Technical Writing . . . . .	5
SPE 101	Speech Essentials <b>or</b> . . . . .	3
SPE 102	Speech Essentials <b>or</b> . . . . .	5
SPE 110	Communication Behavior <b>or</b> . . . . .	3
SPE 111	Communication Behavior . . . . .	5

#### Math Proficiency

X

1. *Intermediate Algebra Proficiency requirement: Must do one of the following:*

*Pass Intermediate Algebra (MTH 095 or MTH 098).*

*Pass a Math class that has an Intermediate Algebra prerequisite.*

*Place into any Math course MTH 113 or above via Placement Test.*

#### B. Quantitative/Symbolic Reasoning (5 credits)

1. *Quantitative Reasoning:*

Course No.	Course Title	Credits
MTH 143	Basic Statistics (Recommended) . . . . .	5

2. *OR Symbolic Reasoning:*

CS 102, CS 161, CS 162, CS 202, or PHI 121

#### C. Humanities (15 credits)

15

Course No.	Course Title	Credits
ICS 120	Survey of Hispanic Culture . . . . .	5

#### Humanities Electives

10

(Course selections must also meet the Humanities distribution requirements for the AA Degree.)

#### D. Social & Behavioral Science (15 credits)

15

Course selections must also meet the Social & Behavioral distribution requirements for the AA Degree.

Course No.	Course Title	Credits
HIS 111	Colonial Latin America . . . . .	5
PS 103	International Relations <b>or</b> . . . . .	5
ANT 120	Introduction to Cultural Anthropology . . . . .	5
<i>Psychology or Sociology (See advisor for appropriate selection) . . . . .</i>		
PSY 201	Social Psychology <b>or</b> . . . . .	5
SOC 201	Global Social Problems . . . . .	5

#### E. Mathematical & Natural Science (15 credits)

15

Course selections must also meet the Mathematical & Natural Science distribution requirements for the AA Degree.

#### F. Health and Physical Education (3 credits)

3

Health lecture or PE activity courses will satisfy this three-credit requirement.

#### G. Required Electives

(Select 24 credits from the following list:)

#### Language

15

(Fifteen credits of Spanish or Portuguese language classes.)

This requirement may also be met by demonstrating the ability to write and read at one-year language level. If this requirement is met without taking the courses, the 15 credits may be taken as electives. (See advisor for class selections.)

#### Additional Electives

Class can only be used once to fulfill one requirement.

Course No.	Course Title	Credits
ANT 120	Introduction to Cultural Anthropology . . . . .	5
ART 120	Art History of Americas. . . . .	5
HIS 112	Modern Latin America . . . . .	5
HIS 113	History: Mexico Since Independence . . . . .	5
ICS 100	Cultural and Historical Linked to Travel . . . . .	1-3
ICS 255	Race and Ethnic Relations. . . . .	5
LIT 180	Multicultural Literature . . . . .	5
LIT 205	World Literature . . . . .	5
LIT 206	World Literature . . . . .	5
PHI 131	World Religions. . . . .	5
PS 101	Comparative Foreign Government. . . . .	5
PS 103	International Relations . . . . .	5
SOC 201	Global Social Problems . . . . .	5
SPA 260	Spanish Literature Readings . . . . .	3
SPA 261	Spanish Literature Readings . . . . .	3
SPA 262	Spanish Literature Readings . . . . .	3
SPE 260	Multicultural Communications. . . . .	5

In addition to the above required coursework, it is extremely important to stay in close contact with your faculty advisor.

## Learning Opportunity Center

The Learning Opportunities Center, Pasco campus, is a large classroom where many courses are offered simultaneously in a lab format. Instruction is provided one-on-one with faculty, through textbooks, and through the use of computers. The developmental education courses offered are as follows:

- ENG 086,ENG 087,ENG 088 Writing Skills

- ENG 091 Grammar Skills
- MTH 080 Whole Numbers
- MTH 081 Fractions
- MTH 082 Measurements, Decimals & Percents
- MTH 083 Review Basics
- MTH 084 Algebra/Geometry
- RDG 079 Spelling
- RDG 080, RDG 081, RDG 082 Study Techniques
- RDG 083, RDG 084, RDG 085 Vocabulary Improvement
- RDG 086, RDG 087, RDG 088 Reading Skills
- RDG 089 Speed Reading

The LOC also offers courses at college-level which are designed to improve college success. Those courses are as follows:

- RDG 105 Speed Reading
- RDG 110 Study Techniques
- RDG 115 Vocabulary Improvement

To find out more about the courses offered by the LOC, find a detailed description in the CBC Catalog.

The LOC, WorkSource, located in Kennewick, offers a limited number of developmental education courses in a modularized format.

## Associate of Applied Science in Machine Technology

### PROFESSIONAL TECHNICAL

#### Major Courses

Course No.	Course Title	Credits
MT 111	Basic Machine Technology I	5
MT 1111	Basic Machine Technology I Lab	9
MT 121	Basic Machine Technology II	5
MT 1211	Basic Machine Technology II Lab	9
MT 131	Basic Machine Technology III	5
MT 1311	Basic Machine Technology III Lab	9
MT 211	Advanced Machine Technology I	5
MT 2111	Advanced Machine Technology I Lab	9
MT 221	Advanced Machine Technology II	5
MT 2211	Advanced Machine Technology II Lab	9
MT 231	Advanced Machine Technology III	5
MT 2311	Advanced Machine Technology III Lab	9
<b>Subtotal.</b>		<b>84</b>

#### Major Support

A.A.S. Degree candidates must complete all of the core curriculum plus the following courses:

Course No.	Course Title	Credits
DRW 104	Industrial Drawing	2
BPR 104	Blueprint Reading I (MT)	3
BPR 204	Blueprint Reading II (MT)	3
CA 100	Introduction to Microcomputers <b>or</b>	4
ENT 267/2671	AutoCAD I & Lab	3
<b>Subtotal.</b>		<b>11-12</b>

#### General Education

Course No.	Course Title	Credits
<i>English (select 5 credits)</i>		
ENG 101	English Composition <b>or</b>	5
ENG 103	Writing in the Workplace <b>or</b>	5
ENG 205	Technical Writing	5
MTH 100+	MTH 100 or above	5
<i>Human Relations (select 3-5 credits)</i>		
PSY 100	Applied Psychology <b>or</b>	3

PSY 101	General Psychology <b>or</b>	5
PSY 201	Social Psychology <b>or</b>	5
BA 271	Human Relations Business	5
<i>Speech (select 3-5 credits)</i>		
SPE 101	Speech Essentials <b>or</b>	3
SPE 102	Speech Essentials <b>or</b>	5
SPE 110	Communication Behavior <b>or</b>	3
SPE 111	Communication Behavior <b>or</b>	5
SPE 260	Multicultural Communications	5
<b>Subtotal.</b>		<b>16-20</b>
<b>Total Credits Required. . . 111-116</b>		

## Associate of Applied Science- Medical Assistant

### Curriculum (First and Second Year)\*\*

#### Major Courses

Course No.	Course Title	Credits
MA 111	Pharmacology I	5
MA 114	Human Body Structure, Function, and Diseases I	4
MA 115	Clinical Procedures Theory I	4
MA 1151	Clinical Procedures Lab I	4
MA 141	Career Development for Medical Assistants	2
<b>MA 143</b>	<b><i>Administrative Medical Assistant</i></b>	
<b><i>Office Procedures</i></b>		<b>5</b>
MA 211	Pharmacology II	5
MA 214	Human Body Structure, Function, and Diseases II	4
MA 215	Clinical Procedures Theory II	4
MA 2151	Clinical Procedures Lab II	4
MA 241	Externship Seminar	1
MA 2413	Externship	6
<b>Subtotal.</b>		<b>48</b>

#### Major Support

Course No.	Course Title	Credits
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#### Electives (select 15 credits)

+100	Humanities, Social Science, Behavioral Science, or Natural Science Distribution List	15
<b>HIT 115</b>	<b><i>Legal Aspects of the Medical Office I</i></b>	<b>2</b>
<b>HIT 147</b>	<b><i>Medical Terminology</i></b>	<b>5</b>
<b>HIT 155</b>	<b><i>Introduction to Medical Coding</i></b>	<b>4</b>
<b>Subtotal.</b>		<b>26</b>

#### General Education

Course No.	Course Title	Credits
ENG 101	English Composition	5
MTH 106+	MTH 106 or above (except MTH 109)	5
<b>PSY 101</b>	<b><i>General Psychology</i></b>	<b>5</b>
SPE 101	Speech Essentials <b>or</b>	3
SPE 102	Speech Essentials	5
<b>Subtotal.</b>		<b>18-20</b>
<b>Total Credits Required. . . 92-94</b>		

\*\*Students who complete the Associate of Applied Science may be able to license as a Category F Health Care Assistant (WAC 246-826-180).

### Medical Assistant One-Year Certificate

#### Curriculum (First Year)\*

#### Major Courses

Course No.	Course Title	Credits
MA 111	Pharmacology I . . . . .	5
MA 114	Human Body Structure, Function, and Diseases I . . . . .	4
MA 115	Clinical Procedures Theory I . . . . .	4
MA 1151	Clinical Procedures Lab I . . . . .	4
MA 141	Career Development for Medical Assistants . . . . .	2
<u>MA 143</u>	<u>Administrative Medical Assistant Office Procedures.</u> . . . . .	<u>5</u>
MA 211	Pharmacology II . . . . .	5
MA 214	Human Body Structure, Function, and Diseases II . . . . .	4
MA 215	Clinical Procedures Theory II. . . . .	4
MA 2151	Clinical Procedures Lab II. . . . .	4
MA 241	Externship Seminar . . . . .	1
MA 2413	Externship. . . . .	6
<b>Subtotal.</b>		<b><u>48</u></b>

#### Major Support

Course No.	Course Title	Credits
<u>HIT 115</u>	<u>Legal Aspects of the Medical Office I.</u> . . . . .	<u>2</u>
<u>HIT 147</u>	<u>Medical Terminology</u> . . . . .	<u>5</u>
<u>HIT 155</u>	<u>Introduction to Medical Coding</u> . . . . .	<u>4</u>
<b>Subtotal.</b>		<b><u>11</u></b>

#### General Education

Course No.	Course Title	Credits
PSY 101	General Psychology . . . . .	5
<u>ENG 101</u>	<u>English Composition</u> . . . . .	<u>5</u>
<u>SPE 101</u>	<u>Speech Essentials or</u> . . . . .	<u>3</u>
<u>SPE 102</u>	<u>Speech Essentials.</u> . . . . .	<u>5</u>
<b>Subtotal.</b>		<b><u>13-15</u></b>
<b>Total Credits Required.</b>		<b><u>72-74</u></b>

Students who complete only the One-Year Certificate may be able to license as a Category E Health Care Assistant (WAC 246-826-170).

#### NEW

### Medical Imaging Technology

The IMAGE courses are designed to prepare students for advanced level ARRT certification examinations in the following three areas.

- Computed Tomography (CT)
- Magnetic Resonance Imaging (MRI)
- Mammography

For additional information, see interest area for program specific criteria.

#### NEW

### Computed Tomography (CT)

The Computed Tomography short-term program is designed to address competency development required by the American Registry of Radiologic Technologists (ARRT) for the advanced level certification exam in Computed Tomography (CT). In addition to clinical competency, academic coursework is offered to prepare the student for the exam administered by the ARRT. Coursework includes sectional anatomy, physics, and instrumentation of CT scanning machines. Additional work experience may be needed to satisfy the minimum number of exams necessary to qualify for the ARRT advanced level exam in CT. The program is designed for certified technologists registered by the ARRT in Radiography, Nuclear Medicine, or Radiation Therapy.

#### NEW

### Computed Tomography Technology Short-Term Certificate

#### Major Courses

Course No.	Course Title	Credits
IMAGE 250	Cross Sectional Anatomy . . . . .	3
IMAGE 251	Advanced Sectional Anatomy . . . . .	2
IMAGE 265	Body Pathophysiology . . . . .	3
IMAGE 266	Neuropathophysiology. . . . .	3
IMAGE 270	CT Clinical Practicum I . . . . .	12
IMAGE 280	CT Instrumentation . . . . .	3
<b>Subtotal.</b>		<b>26</b>
<b>Total Credits Required.</b>		<b>26</b>

#### NEW

### Magnetic Resonance Imaging (MRI)

The Magnetic Resonance Imaging (MRI) short-term program is designed to address competency development required by the American Registry of Radiologic Technologists (ARRT) for the advanced level certification exam in Magnetic Resonance Imaging (MRI). In addition to clinical competency, academic coursework is offered to prepare the student for the exam administered by the ARRT. Coursework includes sectional anatomy, physics, and instrumentation of MRI scanning machines. Additional work experience may be needed to satisfy the minimum number of exams necessary to qualify for the ARRT advanced level exam in MRI. The program is designed for certified technologists registered by the ARRT in Radiography, Nuclear Medicine, or Radiation Therapy.

**NEW**

### Magnetic Resonance Imaging Technology Short-Term Certificate

**Major Courses**

Course No.	Course Title	Credits
IMAGE 250	Cross Sectional Anatomy . . . . .	3
IMAGE 251	Advanced Sectional Anatomy . . . . .	2
IMAGE 265	Body Pathophysiology . . . . .	3
IMAGE 266	Neuropathophysiology. . . . .	3
IMAGE 271	MRI Clinical Practicum II. . . . .	12
IMAGE 281	MRI Instrumentation and Procedures. . . . .	3
	<b>Subtotal. . . . .</b>	<b>26</b>
	<b>Total Credits Required. . . . .</b>	<b>26</b>

**NEW**

### Mammography

The Mammography short-term program is designed to prepare radiologic technologists certified by the ARRT in radiography [R.T. (R)] in the specialized emerging area of mammography. Lecture, lab, and academic coursework are offered to prepare students for the advanced level certification exam offered by the ARRT in Mammography. Students may need additional work experience to satisfy the minimum number of exams to be accomplished under supervision to qualify for the exam.

**NEW**

### Mammography Short-Term Certificate

**Major Courses**

Course No.	Course Title	Credits
IMAGE 225	Mammography . . . . .	4
IMAGE 229	Mammography Clinical . . . . .	4
	<b>Subtotal. . . . .</b>	<b>8</b>
	<b>Total Credits Required. . . . .</b>	<b>8</b>

**NEW**

### Nuclear Medicine Technology

Nuclear medicine is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluations of the physiologic and/or anatomic conditions of the body and to provide therapy with unsealed radioactive sources. The Nuclear Medicine Technologist is an allied health professional who, under the direction of an authorized user, is committed to applying the art and skill of diagnostic evaluation and therapeutics through the safe and effective use of radionuclides. Responsibilities include, but are not limited to: Preparation, quality control testing and administration of radioactive compounds; execution of patient imaging procedures including computer processing and image enhancement; laboratory testing; patient interviews; instruction and preparation for administration of prescribed radioactive compounds for therapy; quality control; and radiation safety.

This is an eighteen-month, full-time Nuclear Medicine Technology program leading to an Associate of Arts in Nuclear Medicine Technology at Bellevue Community College. It is offered through a cooperative effort between Columbia Basin College and Bellevue Community

College. The curriculum prepares students in all aspects of nuclear medicine technology. In addition to performing a wide variety of imaging and therapeutic procedures, students learn to prepare and administer radiopharmaceuticals, explain the procedures and their risks, take patient histories, and analyze the results of each study. Students work with a number of radiation detection systems, including gamma cameras and positron emission tomography systems. They also work with computers that analyze data from imaging studies in addition to those used for administrative tasks. Most importantly, students work directly with patients helping to ease their anxiety as well as provide important test result information for physician diagnosis of their ailments. Through the use of distance education and interactive television courses, Bellevue Community College will deliver course content to students at Columbia Basin College. Students will be able to complete the clinical portion of the degree at clinical facilities in the Tri-City area. On successful program completion, students are eligible for national certification exams as well as Washington State licensure.

Students are required to attend a Nuclear Medicine Information Session at CBC prior to applying for the program through Bellevue Community College. The prospective student would then apply to BCC for the program which is a selective and competitive admissions process. Tuition and fees for the entire program are approximately \$8,000; books are approximately \$500 most of which are purchased at the beginning of the program.

### LPN Curriculum One-Year Certificate

**PROFESSIONAL TECHNICAL**

**Major Courses**

Course No.	Course Title	Credits
NRS 111	Nursing I. . . . .	7
NRS 1111	Nursing I Lab . . . . .	4
NRS 121	Nursing II . . . . .	5
NRS 1211	Nursing II Lab . . . . .	5
NRS 131	Nursing III. . . . .	5
NRS 1311	Nursing III Lab . . . . .	5
NRS 141	Practical Nursing. . . . .	5
NRS 1411	Practical Nursing Lab . . . . .	6
NRS 1351	Nursing Trends Lab (2 credits per quarter). . . . .	6
	<b>Subtotal. . . . .</b>	<b>48</b>

**Major Support**

Course No.	Course Title	Credits
BIO 221	Anatomy/Physiology I. . . . .	4
BIO 2211	Anatomy/Physiology I Lab . . . . .	2
BIO 222	Anatomy/Physiology II . . . . .	4
BIO 2221	Anatomy/Physiology II Lab. . . . .	2
PSY 101	General Psychology . . . . .	5
NRS 101	Basic Pharmacology . . . . .	1
	<b>Subtotal. . . . .</b>	<b>18</b>

**General Education**

Course No.	Course Title	Credits
ENG 101	English Composition. . . . .	5
	<b>Subtotal. . . . .</b>	<b>5</b>
	<b>Total Credits Required. . . . .</b>	<b>71</b>

**NEW**

## Associate of Arts & Science with an Emphasis in Health & Physical Education

TRANSFER DEGREE

### Option C

#### A. Communication

(10 credits in English, plus 3 credits in Speech)

Course No.	Course Title	Credits
ENG 101	English Composition . . . . .	5
ENG 201	Advanced English Composition <u>or</u> . . . . .	5
ENG 205	Technical Writing . . . . .	5
SPE 101	Speech Essentials <u>or</u> . . . . .	3
SPE 102	Speech Essentials <u>or</u> . . . . .	5
SPE 110	Communication Behavior <u>or</u> . . . . .	3
SPE 111	Communication Behavior <u>or</u> . . . . .	5
SPE 260	Multicultural Communications. . . . .	5

#### Math Proficiency

X

1. Intermediate Algebra Proficiency requirement: Must do one of the following:

Pass Intermediate Algebra (MTH 095 or MTH 098) with 2.0 or better.

Pass a Math class that has an Intermediate Algebra prerequisite.

Place into any Math course MTH 113 or above via Placement Test.

#### B. Quantitative/Symbolic Reasoning (5 credits) 5

Choose one class from the Quantitative Reasoning or Symbolic Reasoning courses.

1. Quantitative Reasoning:

Any Math course MTH 122 or above

Course No.	Course Title	Credits
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2. OR Symbolic Reasoning:

CS 102, CS 161, CS 162, CS 202, or PHI 121

#### C. Humanities (15 credits) 15

Course selections must also meet the Humanities distribution requirements for the AA Degree.

#### D. Social & Behavioral Science (15 credits) 15

Course selections must also meet the Social & Behavioral distribution requirements for the AA Degree.

#### E. Mathematical & Natural Science (15 credits)

Course selections must also meet the Mathematical & Natural Science distribution requirements for the AA Degree.

Course No.	Course Title	Credits
CHM 110	General Chemistry/Health Science & . . . . .	4
CHM 1101	General Chemistry/Health Science Lab <u>or</u> . . . . .	1
CHM 111	General Chemistry I & . . . . .	4
CHM 1111	General Chemistry I Lab . . . . .	1
BIO 221	Anatomy/Physiology I . . . . .	4
BIO 2211	Anatomy/Physiology I Lab . . . . .	2
BIO 222	Anatomy/Physiology II . . . . .	4
BIO 2221	Anatomy/Physiology II Lab . . . . .	2

#### F. Health and Physical Education (3 credits) 3

One of the required electives will satisfy this 3 credit requirement.

#### G. Required Electives (24-30 credits of the following list:)

Not every course is required. Please consult the department Advisor for more information.

Course No.	Course Title	Credits
HE 160	Diet, Exercise and Weight. . . . .	2

HE 170	Health and Wellness . . . . .	3
HE 171	Exercise Prescription. . . . .	2
<i>(Recommended-BIO 221/BIO 2211 and BIO 222/BIO 2221)</i>		
HE 1711	Exercise Prescription Lab . . . . .	1
HE 210	Sports Nutrition . . . . .	3
HE 220	Drugs and Health. . . . .	3
HE 230	First-Aid Safety . . . . .	3
HE 232	Sports Psychology . . . . .	3
HE 240	Stress Management . . . . .	3
HE 250	Sports Management . . . . .	3
PE 180	Adaptive Physical Education . . . . .	2
<i>(Recommended-BIO 221/BIO 2211 and BIO 222/BIO 2221)</i>		
PE 1801	Adaptive Physical Education Lab. . . . .	1
PEC 180	Care & Prevention of Athletic Injuries. . . . .	3
PEC 182	Care & Prevention of Athletic Injuries Section II . . . . .	2
PEC 1821	Care & Prevention of Athletic Injuries Section II Lab . . . . .	1
PEC 183	Athletic Training Internship . . . . .	2
PEC 1831	Athletic Training Internship Lab . . . . .	1

In addition to the above required coursework, it is extremely important to stay in close contact with Your faculty advisor within the Health Education Department.

**NEW**

## Reading

The Basic Skills Division offers reading classes at several levels for students who wish to improve spelling, vocabulary, reading comprehension and/or speed, and study techniques and strategies for college success. Classes are offered in the Learning Opportunities Center (LOC) where instruction is a lab format, the classroom, and online (Study Techniques 110).

## Tri-Tech Program Completion Certificates

Students who begin their technical training in Culinary, Dental, or Radio Broadcasting at Tri-Tech Skills Center have the opportunity to complete a certificate program at Columbia Basin College. The completion program is available to students who have successfully completed courses at Tri-Tech Skills Center in one of these three areas and enrolled in the Tech Prep Dual Credit Program while still attending Tri-Tech. Upon completion of the additional electives and general education requirements, students are eligible to apply for a certificate through CBC. Questions regarding these certificates should be directed to the Tech Prep Director at CBC ext. 2559. See Culinary and Food Services, Dental Assisting, and Radio Broadcasting for certificate requirements and course descriptions.

# Course Offerings



## Administrative Office Technology

**AOT 247**

**Medical Terminology II . . . . . 3 Credits**

Provides further training of medical terminology for the medical office. Major topics to be studied are: Cardiovascular system, blood and lymphatic-immune systems, digestive system, muscular system, skeletal system, and pharmacology. Emphasis is placed on the diseases, laboratory tests, drugs, spelling and proper phrasing used in medical records. Prerequisite: AOT 147/HIT 147.

**NEW**

## Agricultural Food Systems

**AFS 101**

**Introduction to Agricultural Systems . . . . . 3 Credits**

Introduction to the disciplines and integration of fields of agriculture, food production, manufacturing and distribution and rural society to define and solve real-world problems. Provides an increased awareness of emerging agriculture in the Columbia Basin including crop management, sustainable agriculture, niche and specialty markets, organic crop and animal production, water management, global issues, technology innovations, financial management, bioterrorism, crop insurance programs, emerging commodities, biotechnology and crop innovations.

**AFS 201**

**Agricultural and Food Systems . . . . . 3 Credits**

This course will develop further training and tools skills in systems and modeling. In-depth definitions and examples of inquiry, data-gathering, model construction, systems integration, model and systems evaluation will be covered and practiced. Students will construct models of basic systems as teams, and show how they apply in real-world situations. Assignments will include learning to choose what types of systems to use, how to gather or learn information necessary to the situation, team-based integration, construction and evaluation (measuring against real-world) of models and systems. Emphasis will be placed on presentation techniques including computer programs and oral presentation skills. Prerequisite: AFS 101.

## Agriculture

**AG 201**

**Soils. . . . . 4 Credits**

A course offering the student a general background and understanding of soils, soil formation processes, soil origins with an emphasis on soil origins in the Pacific Northwest, soil taxonomy, organic matter, water relationships, pH, and biological relationships. Prerequisites: CHM 100/CHM 1001 or CHM 101/CHM 1011 or instructor permission. This course is cross linked to BIO 201/BIO 2011. Students completing AG 201/AG 2011 may not receive graduation credit for BIO 201/BIO 2011.

**NEW**

## Animal Science

**AS 101**

**Introduction to Animal Science . . . . . 4 Credits**

Types and breeds of livestock, terminology, methods, management systems, techniques of animal and poultry production and consumer impact.

**AS 1011**

**Introduction to Animal Science Lab . . . . . 1 Credit.**

Lab to be taken concurrently with AS 101.

## Art, Visual

**ART 211**

**Graphic Design I . . . . . 5 Credits**

An introductory class in the theory and application of graphic design used in today's advertising and industrial graphics. Industry-accepted computer software for vector drawing and page layout will be extensively used by the student. Recommended: ART 111 and ART 113L.

**ART 2181**

**Watercolor II. . . . . 1-3 Credits**

A continuation of ART 2171 with emphasis on contemporary composition and illustrative techniques. Recommended for fine arts, illustration and graphic art majors. Prerequisite: ART 2171.

**ART 2211**

**Sculpture II . . . . . 1-3 Credits**

A continuation of ART 2201 with emphasis on the techniques of casting, construction, and carving. Prerequisite: ART 2201.

**ART 2221**

**Pottery I . . . . . 1-3 Credits**

A basic introduction to ceramic forms with emphasis on production by hand methods. Consideration of the nature and possibilities of clay, clay body formulation, and introductory glaze testing as well as loading and firing procedures for bisque and glaze kilns.

## Automotive Technology

**NEW**

**AMT 100**

**Basic Automotive Maintenance . . . . . 2 Credits**

An introduction to general automotive systems and service procedures. This course is designed to familiarize the student with the automotive industry learning how to properly service and maintain today's vehicles, knowing how to understand what a service repair facility is saying to them when they are having a vehicle repaired, and the requirements to continue on becoming an automotive repair technician if desired. Class time consists of lecture on theory of preventative maintenance procedures and systems, basic operation of automotive tools, shop safety, computerized on-line information systems, written assignments and basic automotive repair techniques. Lab time will consist of the student applying concepts learned with hands-on experience while working on student owned vehicles and school mock-ups.

**NEW****AMT 1001**

**Basic Automotive Maintenance Lab . . . . . 1-3 Credits**  
Lab to be taken concurrently with AMT 100.

**NEW****AMT 207**

**Material Science of Automotive Technology . . . . 3 Credits**

This is an introductory level study of automotive materials used today and new materials in the future. Steels and aluminum alloys, carbon fiber composites and plastics are introduced to the student in the context of their manufacturer and properties. The automotive maintenance and repair students are presented the common failure modes and an understanding the common nondestructive testing techniques used to diagnose degradation processes prior to catastrophic failure. The student will also learn the general steps in performing nondestructive testing and how components wear, corrode or mechanically fail during service. The nondestructive testing component of the class training will follow guidelines set forth by the American Society of Nondestructive Testing SNT-TC-1A for Magnetic Particle Testing Level I and Penetrant Testing Level I (PT-I).

**AMT 240**

**Drivability Diagnostics . . . . . 2 Credits**

This combination class/lab is designed to give the student a highly developed understanding of the theory, diagnosis and service of the drivability automotive systems. Emphasis will be on power train computer systems, sensors and outputs, and the proper diagnostic strategies to locate potential problems in these systems. Prerequisites: AMT 233, AMT 2331, and above MTH 111.

**AMT 243**

**Heating, Ventilation,  
and Air Conditioning Systems. . . . . 2 Credits**

This combination class/lab is designed to give the student a basic understanding of the theory, diagnosis and service of automotive heating, ventilation, and air conditioning (HVAC) systems. Emphasis will be on proper air conditioning recharging techniques and the electrical portion of the HVAC systems. Prerequisites: AMT 240, AMT 2401, and above MTH 111.

## Biology

**BIO 105**

**Cell Biology for Health Sciences [M/S] . . . . . 4 Credits**

An introduction to basic cell structure and physiology with emphasis on: Function and structure of cell membranes; metabolism and enzyme function; genetics and protein synthesis; genetics of viruses, prokaryotes, and eukaryotes; cell signaling and communication. The use of models, microscope slides and physiological experiments illustrate cellular structure and function. Prerequisite: Strongly recommended: High school chemistry, or CHM 100/CHM 1001 or higher, or concurrent enrollment. This course does not satisfy the prerequisite for BIO 112/BIO 1121 or BIO 113/BIO 1131.

**BIO 111**

**Core Biology-The Cell [M/S] . . . . . 4 Credits**

An introductory cell biology lecture and lab course for biology majors, pre-medical, pre-dental, pre-pharmacy, pre-physical therapy and other pre-professional students planning to transfer to a four-year university. This is the first of a three-quarter series with an emphasis on cell chemistry, structure, metabolism, energetics, cell division, cell signaling, the molecular basis of inheritance and development, and the basis of genetic engineering. Health Science majors are advised to take BIO 105/BIO 1051. Prerequisite: A grade of 2.0 or better in CHM 100/CHM 1001 or higher.

**BIO 112**

**Core Biology-The Plant [M/S] . . . . . 4 Credits**

Includes the concept of evolution; the origin of life; a survey of prokaryotes, protists, plants, and fungi; plant anatomy and function. Primarily for science majors. Prerequisites: A grade of 2.0 or better in BIO 111/BIO 1111 and CHM 101/CHM 1011 or higher.

**BIO 240**

**General Ecology [M/S] . . . . . 4 Credits**

A course offering the student a general background and understanding of the fundamental principles of ecology with emphasis on ecology of terrestrial systems. Topics will include review and discussion of the organism in the context of its environment, evolutionary processes, population dynamics, communities, energy flow and ecosystems, conservation biology, field and lab techniques as presented in the text and lecture, basic natural history, and human influences on ecosystems. Prerequisites: BIO 111/BIO 1111, or CHM 101/CHM 1011 or higher, and ENVS 100/ENVS 1001.

## Business Administration

**BA 105**

**Business and Payroll Tax Accounting . . . . . 5 Credits**

A study of the various aspects of federal, state, and local taxes levied upon business. Emphasis placed on Federal Income and Social Security tax withholding, sales tax requirements and various state regulations regarding employee health, safety, unemployment insurance and business and occupation tax. Students will practice completion of various tax reports and maintenance of accurate tax related records. Offered spring quarter. Prerequisite: BA 251 or instructor's permission.

**BA 107**

**Federal Income Taxes . . . . . 5 Credits**

This course emphasizes tax planning and tax recognition, not tax expertise. Students will be aware of the many issues and general solutions in taxation, including tax considerations in business decision-making, tax effects of business transactions; taxation of compensation; fringe benefits; capital gains; fixed asset transactions; tax credits; alternative minimum tax and passive activity rules, but leaving the detailed tax planning or compliance work for other tax courses. Offered fall quarter. Recommended prerequisite: BA 251.

## Chemistry

### CHM 101

#### Introduction to Chemistry [M/S] . . . . . 4 Credits

Introduction to chemical principles, chemical measurements, matter and energy, atomic theory, periodic properties, mole concept, molecules, compounds and chemical bonding, nomenclature and chemical equations, stoichiometry and chemical calculations, gas laws, solids, liquids, phase changes, oxidation-reduction reactions, solutions, reaction rates and chemical equilibrium, and acids/bases. The course is directed toward students needing a knowledge of the fundamentals of inorganic chemistry and planning to obtain a degree in the physical/life science/engineering disciplines. Excellent preparation for CHM 111/CHM 111L. Prerequisite: MTH 095 or MTH 098.

### NEW

### CHM 135

#### Survey of Organic & Biochemistry [M/S] . . . . . 4 Credits

The course will provide the fundamental chemistry of organic compounds in molecules and reactions of living systems. Topics covered include: hydrocarbons, alcohols and thiols, carbonyl compounds, carboxylic acids, esters, amines, amides, carbohydrates, proteins, lipids, & nucleic acids. Universal metabolic pathways that occur in both simple and complex organisms will be covered including: glycolysis, gluconeogenesis, citric acid cycle, electron transport chain, oxidative phosphorylation, fatty acid biosynthesis and degradation, amino acid transamination, & all aspects of the storage and expression of genetic information. This course is designed for students that need a laboratory science class that has a depth of both organic chemistry and biochemistry. Prerequisite: Grade of 2.0 or better in CHM 101/CHM 1011 or CHM 110/CHM 1101.

### NEW

### CHM 1351

#### Survey of Organic & Biochemistry Lab [M/S] . . . . 1 Credit

Lab to be taken concurrently with CHM 135.

### NEW

### CHM 2901

#### Undergraduate Research, Special Topics [M/S] 1-3 Credits

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

### NEW

### CHM 2902

#### Undergraduate Research, Special Topics [M/S] 1-3 Credits

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

### NEW

### CHM 2903

#### Undergraduate Research, Special Topics [M/S] 1-3 Credits

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

### NEW

### CHM 2904

#### Undergraduate Research, Special Topics [M/S] 1-3 Credits

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

**NEW****CHM 2905****Undergraduate Research, Special Topics [M/S] 1-3 Credits**

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

**NEW****CHM 2906****Undergraduate Research, Special Topics [M/S] 1-3 Credits**

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

**NEW****CHM 2907****Undergraduate Research, Special Topics [M/S] 1-3 Credits**

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

**NEW****CHM 2908****Undergraduate Research, Special Topics [M/S] 1-3 Credits**

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

**NEW****CHM 2909****Undergraduate Research, Special Topics [M/S] 1-3 Credits**

Designed for students who want to expand their knowledge of chemistry beyond the basics offered in their regular courses. By arrangement with the instructor, the student can participate in undergraduate research (either alone or as part of a team with other students), design and carry out a project, or pursue a special topic of interest in the fields of analytical chemistry, atmospheric science or chemical education. Prerequisites: CHM 101/CHM 1011 with a grade of 2.0 or higher or high school chemistry with a grade of B or better. Instructor permission is also required to enroll. Note: Credits earned in this course cannot be used as a substitute for required credits in other CBC chemistry courses.

**Computer Science****NEW****CS 101****Introduction to Computer and****Information Technology . . . . . 5 Credits**

CS 101 is a five-credit introductory class designed to meet the needs of all students as defined in CBC's "Using Information Technology & Tools Student Learning Outcome." The class emphasizes the cognitive aspects of dealing with Information Technology (IT): Evaluating information, learning practical IT skills, solving problems, and dealing with information related issues such as privacy, security, ethics, etc. Students will also learn computer basics, using Windows, Word, Excel, PowerPoint, email and Internet skills to locate, present and report information. Prerequisite: There is no prerequisite for the class.

**CS 102****Visual Basic 1 [Q/SR]. . . . . 5 Credits**

This course is an introduction to programming using Visual Basic.NET. It is designed for those with little or no programming experience. Topics include: Program development cycle, fundamentals of programming in Visual Basic, decisions, repetitions, controls, functions, and procedures. Prerequisite: MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 106****Database Systems . . . . . 5 Credits**

This is a beginning database course in which the student will create, modify, and implement relational databases using Microsoft Access. Topics include: Tables, queries, forms, reports, sharing information with other programs, data access pages, advanced queries, managing database objects, and creating macros and switchboards. Prerequisite: CS 101. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 109****PC Hardware I . . . . . 5 Credits**

This is the first course in a two-course series designed to provide the knowledge, skills, and abilities essential for a successful computer service technician as defined by experts from companies across the industry. Hardware topics include: Power supply, CPUs, and motherboards. Other topics include: DOS Operating System, number systems, working safely and professionally, and the customer relations skills necessary in the industry. Prerequisite: CS 101.

**CS 110****Windows Operating Systems . . . . . 5 Credits**

This is an introductory Operating System course using Windows XP. Topics include: Operating system fundamentals, organizing disks, managing files, system maintenance, customizing computer systems, system backup, OLE technology, shortcuts, troubleshooting tools, system performance, computer safeguards, solving problems, and optimizing computer systems. Prerequisite: CS 101. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 114****HTML Internet Publishing 1 . . . . . 5 Credits**

This course will provide the students with the skills needed to create Web pages using XHTML. The students will learn how to include text, pictures, and hypertext links, as well as tables, forms, and frames. They will also learn how to create and manipulate image maps and animated GIFs. In addition, students will be exposed to the critical design concepts including: Visual design, user interface design, designing for accessibility, and designing technically correct (valid) documents. Prerequisite: CS 101. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 115****JavaScript/CSS Internet Publishing 2 . . . . . 5 Credits**

This course will provide students with the skills needed to add JavaScript and Cascading Style Sheets to Web pages (all the way through etc.) JavaScript is the scripting language used for developing client-side applications for Web pages. It is used for creating dynamic, interactive content for otherwise static HTML pages. The students will learn the W3C/ECMA Document Object Model (DOM) and the methods required to add client-side error checking, dynamic images and roll-over buttons, dynamic menus, etc. The students will also learn how to control page layout and control the layout and appearance of Web pages using CSS. Prerequisites: CS 102 and CS 114. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 161****C++1 [Q/SR] . . . . . 5 Credits**

This class is the first in a series of three in which the student will learn the C++ programming language. C++ is an extension of C language, which includes both procedural and object-oriented programming. It is the basis for most PC based windows programs. Students will learn C++ keywords, control structures, functions, arrays, strings, and introduction to classes and objects. Prerequisite: MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 162****C++2 [Q/SR] . . . . . 5 Credits**

This is an intermediate C++ course that provides students an understanding of key object-oriented programming (OOP) theories and concepts; and how to create and manipulate objects in a GUI environment. The students will learn advanced features of C++ including: arrays, strings, file processing, classes, inheritance, composition, pointers, virtual functions, templates, and introduction to linked lists. Prerequisite: CS 161. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 171****C#1 . . . . . 5 Credits**

This class is the first in a series of three in which the student will learn the C# programming language using Microsoft Visual Studio. Topics included: Visual programming, visual studio, control structures, object-oriented programming, selection structure, repetition structure, methods, and classes. Prerequisite: MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 172****C#2 . . . . . 5 Credits**

This class is the second in a series of three in which the students will learn the C# programming language using Microsoft Visual Studio. Topics include: Parameter passing, type conversion, arrays, user defined classes, methods, random-numbers, collections, graphs objects, mouse and keyboard events, string processing, sequential-access files, and streams. Prerequisite: CS 171. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 1952****Work-Based Learning I . . . . . 1-8 Credits**

An internship course designed to provide a single contact point for quality technical support service and/or other computer related service in a timely manner for college faculty, staff, administrators, and/or a local employer. It also provides practical experience for technical support students as an integral part of the overall academic program. This course is for academic credits only and non-paying. Students are required to work 55 hours to earn one credit hour. Prerequisite: CS student and instructor's permission.

**CS 1953****Work-Based Learning 2 . . . . . 1-5 Credits**

Required for Computer Science Program students who receive on-the-job training on information systems or any computer-related assignments. Instructor's signature is required for registration. Includes components of job search skills/career management, written communication, and cultural diversity. Students are required to work 33 hours to earn one credit hour, and are paid by the employer. In addition, students must meet the requirements of job performance specified by the employer and learning objectives. Employers and the college cooperate in providing an educational experience relevant to the demands of today's work. Prerequisite: CS student, a job placement, and instructor's permission.

**CS 202****Visual Basic 2 [Q/SR]. . . . . 1-5 Credits.**

This is an intermediate Visual Basic programming course using Microsoft Visual Basic.Net. Students will learn to write, design, and debug Windows applications using *a variety of controls and events*, procedures, functions, *arrays, structures*, files, classes, *ADO.net*, and calculations to solve problems. *Class projects involve writing simple games and business applications*. Prerequisite: CS 102. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 203****Advanced Graphics Software and Multimedia . . 5 Credits**

This class teaches the student how to use PhotoShop. The focus is on both using the software and the elements of design as they specifically apply to online applications. The students will learn color theory, typography, using layers, compression and the various file formats, and preparing images for use on the Web. Students will learn how to use the basic PhotoShop tools, as well as the filters, the pen tool, the shape tools, and the selection tools. Students will also learn advanced techniques such as converting between paths and selections, using masks to selectively apply filter or changes to an image, etc. Prerequisite: CS 101. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 212****Visual Basic 3 . . . . . 5 Credits**

This is an advanced Visual Basic programming course using Microsoft Visual Basic.Net. Students will learn to write, design, and debug Windows applications with essential data structures and databases with .Net interfaces. Students will also learn to use different types of programming models to fit the needs of customers. *Class projects involve writing applications using inheritance, polymorphism, arrays, collections, multithreading, and data from various sources*. Prerequisite: CS 202. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 213****Advanced Internet . . . . . 5 Credits**

The current Internet applications such as Web browsers and email packages, make it very easy to access and exchange information with other Internet users, without an in-depth understanding of what is actually happening. This class takes the student beyond simply using the Internet, to understanding its processes and mechanisms. This will allow the student to not only use the Internet more efficiently, but also give them the skills to troubleshoot problems, or avoid potential pitfalls from the outset. Students must know how to use basic Internet applications. Prerequisite: *CS 101* or instructor's permission. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 215****Java Programming . . . . . 5 Credits**

JAVA is an object oriented programming language that is widely used to enhance information delivery on the Web. Students will learn how to write programs and applets using JAVA. Prerequisite: CS 161 or instructor's permission. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 216****XML Internet Publishing III . . . . . 5 Credits**

This course provides an introduction and practical experience with the Extensible Markup Language (XML) and it's associated standards including: SGML, XSL, SXLT, XHTML, CSS, and other emerging standards, and mainstream electronic publishing technologies concerning page description languages, colors, and fonts. Students will learn to edit and debug XML documents, create a DTD, create a schema, and transform documents with XSLT. Students who have some exposure to a programming or scripting language will have an advantage, though programming skill is not required. Prerequisites: CS 115 or equivalent advanced HTML skills and MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 218****ASP.NET . . . . . 5 Credits**

This course will prepare students to develop Web applications in the .NET arena. Students will learn to create Web Services sites using Microsoft's Visual Web Developer (VWD). Students will learn how to create a Web interface to a database and add/update/delete tables and records; create a masterpage to control site appearance and layout, use navigation controls to build dynamic menus, and control access to the sites and individual pages using different forms of authentication. Prerequisites: CS 102 and CS 114, or instructor's permission. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 221****SQL Server Administration . . . . . 5 Credits**

This course provides students with the knowledge and skills to install, configure, administer, and troubleshoot Microsoft SQL Server client/server database management systems. It will help prepare students for the MCDBA Certificate. Prerequisites: CS 106 and MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 222**

**Novell ..... 5 Credits**

This course is an introduction to Novell Netware. It provides students with basic knowledge about implementing NetWare and using its management tools. The course will contain information on setting up and managing network access for users, managing the file system, securing NDS and the file system, and server installation. Prerequisites: CS 109 and MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 223**

**Unix/Linux ..... 5 Credits**

This course will prepare students to administer UNIX and Linux. This course covers topics related to: Installation, configuration, troubleshooting, and optimization of a Linux Server. Students will learn to set up and maintain users, groups, and file systems. The students will learn how to use critical thinking and troubleshooting tools to troubleshoot the server, printers, and workstations. Prerequisite: CS 224, MTH 095 or MTH 098, or instructor's permission. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 224**

**Networking Essentials ..... 5 Credits**

Theory, design, installation, configuration, and management of computer networks. Focuses on local area network concepts with emphasis on configuring TCP/IP, subnetting, the ISO stack, interconnect devices, and physical media. Prerequisite: CS 109. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 225**

**SQL Server Programming ..... 5 Credits**

This course provides students with the knowledge and skills to implement a database solution with Microsoft SQL Server client/server 2000 database management system. Prerequisites: CS 206 and MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**Webmaster ..... 5 Credits**

In this course, the student will gain the knowledge and skills needed to design and manage an Intranet for an Internet Web site. Specifically, the student will learn how to set up and configure a Web server and the applications needed to support it. Familiarity with building Web pages and with basic programming concepts are assumed. Prerequisite: CS 114, CS 228, and MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 230**

**Active Directory ..... 5 Credits**

This course is designed to provide students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows Active Directory. The course also focuses on implementing Group Policy and performing the Group Policy-related tasks that are required to centrally manage users and computers. Prerequisites: CS 228 and MTH 095 or MTH 098. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 243**

**Web Animation ..... 5 Credits**

This class covers the basics of 2D animation for use on the Web. Students will learn Flash, a timeline-based 2D animation application. The class will introduce the Flash drawing tools, tweening, and cartoon animation techniques. Students will also be introduced to actionscript and create a simple game. Prerequisites: CS 203 and MTH 095 or MTH 098 or instructor's permission. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 261**

**Visual C++ ..... 5 Credits**

A course in Windows programming with C++ and Visual C++ will help students to program using C++ Standard Template Libraries and Graphical User Interfaces and Multimedia. Students also learn to use Windows object-oriented development techniques for large applications. This course is intended for students who are already familiar with C++ language. Prerequisite: CS 162. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 262**

**Game Programming Design ..... 5 Credits**

A course in Game programming Design helps students understand important fundamentals of how to develop game applications using object-oriented development techniques. Course projects will involve developing, debugging, and optimizing games for multiple hardware platforms. Prerequisite: CS 162 or CS 172. All prerequisites must be passed with a 2.0 or better before taking this class.

**CS 270**

**Data Structures in C# ..... 5 Credits**

This class is the third in a series of three in which the student will learn the C# programming language in the .Net framework. The students will learn about how to implement and use different types of data-structures. This will lead the students to create data-driven programs and algorithms. The students will learn more about lists, arrays, stacks, queues, trees, searching, sorting, and windows forms. The course starts at a level that assumes a good working knowledge of C#. Prerequisite: CS 172 or instructor's permission. All prerequisites must be passed with a 2.0 or better before taking this class.

**Diagnostic Ultrasound  
Technology**

**DUTEC 105**

**Pathophysiology I ..... 3 Credits**

Introduces pathogenesis: The sequence of events in the development of a disease. Students focus on pathological conditions affecting the abdomen and identifiable with diagnostic imaging techniques. An extensive review of normal physiology is also presented. Prerequisites: BIO 221/BIO 2211 and BIO 222/BIO 2221, and acceptance into program or permission of program chair.

**DUTEC 110**

**Ultrasound I: Abdominal Scanning & Techniques . . . . . 4 Credits**

Presents basic concepts and terminology, as well as scanning protocols for the ultrasound examination of the abdomen. Topics include both normal and pathological states. Prerequisite: Acceptance into program or permission of program chair.

**Education**

**ED 135**

**College Major/Career Planning . . . . . 3 Credits**

This course is designed to assist students in gaining insight into interests, values, personality, strengths, and the decision-making processes necessary for choosing a college major and planning a career. This course is for those who are choosing, changing, or confirming their educational goals. Topics will include growing career opportunities, job hunting techniques, goal setting and tools for success.

**Emergency Medical Technician**

**EMT 101**

**Emergency Medical Technician-Basic . . . . . 1-10 Credits**

This is the entry-level course to the Emergency Medical Service (EMS) profession and is designed for those who aspire to become an Emergency Medical Technician-Basic. The course will focus on: EMT roles and responsibilities, airway management, patient assessment, medical & trauma emergencies, anatomy and physiology, documentation, lifting and moving, and communications. The course also includes practical labs and a total of 10 hours of clinical experience in the Emergency Department to provide direct hands-on experience with a variety of patients. Upon successful completion of this course, the student will be eligible to take the Washington State Certification Exam and may be considered for the Pre-Paramedic Short Term Certificate.

Current Health Care Provider CPR card required. Malpractice Insurance fees are added into the registration. Immunization records must be presented the first day of class. A Washington state background check must be completed prior to admittance into this course. More information is available from the Health Sciences Division office at 509/547-0511 *ext 4000*.

**EMT 102**

**Emergency Medical Technician**

**Intermediate . . . . . 1-10 Credits**

EMT-Intermediate is an additional course that is offered on an as needed basis. This need is determined by the EMS officers and fire chiefs from rural departments. EMT-I is approximately 80 hours of additional training beyond EMT-B, and equips the responder with the skills to start IVs, control the airway with invasive procedures, and administer some medications to patients.

**Engineering Technology**

**ENT 1261**

**Graphical Analysis . . . . . 5 Credits**

Descriptive geometry to include the spatial relationship of points, lines, and planes; intersection of planes and polyhedra; and development of surfaces. Vector analysis of coplanar concurrent and coplanar parallel force systems. Advanced isometric drawings. Prerequisite: ENT 1161.

**ENT 1361**

**Advanced Drafting . . . . . 4 Credits**

An introduction to the fundamentals of computer-aided drafting including extensive use of the draw and modify commands for sketches and mechanical drawings. Prerequisite: ENT 1261 or instructor's permission.

**ENT 1721**

**Technical Drafting . . . . . 3 Credits**

This course will build on the fundamentals of: Multiview projection, sectional views, auxiliary views, shop fabrication processes, and dimensioning. Prerequisite: ENT 1711 or instructor's permission.

**ENT 2161**

**Mechanical Drafting & Design . . . . . 5 Credits**

Fundamentals of design, assembly drawings, dimensioning systems, and a mechanical design/drafting project. The primary emphasis of this course will be the application of CAD to mechanical drawings using AutoCAD. Prerequisite: ENT 1361 or instructor's permission.

**ENT 2191**

**Construction Estimating . . . . . 1 Credit**

An overview of the techniques used in estimating material quantities in construction projects. Prerequisite: ENT 122, completion of or concurrent enrollment in ENT 2261, or instructor's permission.

**ENT 2261**

**Architectural/Structural Drafting . . . . . 5 Credits**

A drafting and design course covering construction techniques, architectural drawings, organization of drawing sets, and design projects. Prerequisite: ENT 1361.

**ENT 2361**

**Design . . . . . 5 Credits**

Various individual and team projects with specific criteria and constraints assigned. The completed projects are formally presented using both oral and written reporting techniques. Prerequisites: ENT 224, ENT 2261, and students must be enrolled in the ENT program.

**ENT 267**

**AutoCAD I . . . . . 2 Credits**

This course utilizes AutoCAD for computer-aided drafting (CAD). The course shows how to use AutoCAD to set up drawings, additional draw and edit commands, dimensioning, and text. Students will utilize drafting and editing techniques to efficiently produce their drawings. Prerequisite: ENT 1161, ENT 1721, or equivalent.



**ENT 282**

**MicroStation II for the AutoCAD User . . . . . 2 Credits**

This course continues the development of concepts presented in ENT 281/ENT 2811, MicroStation I for the AutoCAD User, and therefore utilizes MicroStation for computer-aided drafting (CAD). The course is designed for the advanced CAD user who wants to continue transferring existing AutoCAD knowledge to MicroStation skills, or to enhance current MicroStation knowledge. Prerequisites: ENT 281/ENT 2811 or instructor's permission.

**Environmental Science**

*NEW*

**ENVS 174**

**Introduction to Meteorology and the Atmosphere [M/S]. . . . . 5 Credits**

An introduction to meteorology, weather, climate, and the atmospheric processes related to air pollution and climate change. Topics include: Atmospheric structure, solar radiation, clouds, precipitation, pressure, fronts, hurricanes, air pollution, climate, and global climate change. Prerequisites: MTH 095 or MTH 098.

**First Year Introduction**

**WKSP 095 . . . . . 0 Credits**

Degree or certificate seeking students may elect to complete the mandatory orientation by taking a self guided workshop. The workshop assesses student's knowledge of college, general policy and procedures and resources available to students at CBC. There is a fee of \$50.

**Geology**

**GEL 102**

**Physical Geology II [M/S]. . . . . 1-3 Credits**

An introduction to geomorphology. A descriptive and interpretive examination of the earth's topographic features produced by: a) surface processes such as glaciers, streams, wind, waves, and groundwater, and b) deformation which results in structures such as folds and faults. Laboratory exercises will include the use and interpretation of topographic maps, and aerial photographs, and possible field experiences. Lecture and lab must be taken concurrently. Prerequisite: GEL 101/GEL 1011 or instructor's permission.

**GEL 203**

**Historical Geology [M/S] . . . . . 3 Credits**

Assessment of the history and development of the earth's physical environment and its inhabitants. An historical and chronologic analysis of the origin of the earth, including the development of the earth through time and discussion based on the paleontologic, sedimentologic and stratigraphic record. Study of distinctive fossil groups for each geologic period and applications for correlation and reconstruction of regional geologic history. Lecture and lab must be taken concurrently. Prerequisite: GEL 101/GEL 1011 or instructor's permission.

**GEL 211**

**Environmental Geology [M/S] . . . . . 3 Credits**

Relationships of human activities with earth materials and processes. Earthquakes, volcanic activity, mass wasting, subsidence, surface water, mineral resources, waste disposal, water pollution, and a heavy emphasis on groundwater may all be included. Students will be expected to make interpretations and draw conclusions from scientific data such as graphs, charts, and maps. Lecture and lab must be taken concurrently. Field trips may be included as a part of the laboratory experience. Prerequisite: GEL 101/GEL 1011 or instructor's permission.

**Health Education**

*NEW*

**HE 171**

**Exercise Prescription [PE] . . . . . 2 Credits**

This course is the study of the history, current trends and research regarding proper protocols for designing individual workout programs based on needs and experience of individuals.

*NEW*

**HE 1711**

**Exercise Prescription Lab [PE] . . . . . 1 Credit**

Lab to be taken concurrently with HE 171.

*NEW*

**HE 210**

**Sports Nutrition [PE] . . . . . 3 Credits**

This course is an introduction to terms, concepts and research regarding proper nutrition for athletes and active individuals. In addition, supplementation and aids to enhance performance will be studied.

*NEW*

**HE 215**

**Health and Fitness for Life [PE] . . . . . 2 Credits**

This is a foundation course designed to prepare students for living the rest of their lives in a state of optimal health by providing the necessary knowledge and skills that are desirable in order to make meaningful, beneficial, and successful choices in the area of physical fitness, nutritional awareness, stress management, and other aspects of health. This class requires lab activities in the fitness center.

*NEW*

**HE 2151**

**Health and Fitness for Life Lab [PE] . . . . . 1 Credit**

Lab to be taken concurrently with HE 215.

*NEW*

**HE 232**

**Sports Psychology [PE] . . . . . 3 Credits**

This course is an introduction to terms, concepts and research regarding the psychological area of sports. The history, current trends and legal issues regarding the field of Sports Psychology will be studied.

**NEW**

**HE 250**

**Sports Management [PE] . . . . . 3 Credits**

This course is an introduction to the history, current global perspectives, trends and research regarding the field of Sports Management. Students will gain an understanding of marketing, organization, and financial aspects of Sports Management.

**Health Sciences**

**NEW**

**HSCI 220**

**ACLS Initial. . . . . 2 Credits**

Through the Advanced Cardiac Life Support course, healthcare providers will enhance their skills in the treatment of the adult victim of a cardiac arrest or other cardiopulmonary emergencies. The emphasis will be on the importance and integration of basic life support CPR with advanced cardiovascular life support and then importance of effective team interaction and communication during resuscitation. Prerequisites: Current Healthcare Provider BLS card and completion of prerequisite checklist.

**NEW**

**HSCI 221**

**ACLS Renewal . . . . . 0.9 Credit**

This course is offered to provide an update to current ACLS providers and to renew ACLS provider status. Prerequisites: Current Healthcare Provider BLS card, current ACLS Provider Card, and completed ACLS Precourse Checklist.

**NEW**

**HSCI 222**

**ACLS Experienced Provider . . . . . 1 Credit**

The ACLS Experienced Provider course is for seasoned ACLS providers who wish to renew their ACLS provider status. This course provides a stimulus for expert healthcare providers to identify areas in resuscitation that deal with special circumstances. Prerequisites: Current Healthcare Provider BLS card and current ACLS Provider Card.

**NEW**

**HSCI 223**

**ACLS Instructor Course . . . . . 1 Credit**

One credit class to prepare individuals to become instructors in advanced cardiovascular life support. Prerequisites: Current ACLS Provider. Recommendation of an ACLS Course Director or ACLS Regional Faculty member. Completion of AHA Core Instructor course prior to class.

**NEW**

**HSCI 230**

**PALS Initial . . . . . 2 Credits**

The goal of the Pediatric Advanced Life Support course is to aid the pediatric healthcare provider in developing the knowledge and skills necessary to pediatric healthcare providers in developing the knowledge and skills necessary to efficiently and effectively manage critically ill infants and children. Skills taught include recognition and treatment of infants and children at risk for cardiopulmonary arrest; the systematic approach to pediatric assessment, effective respiratory management; defibrillation and synchronized cardioversion; intraosseous access and fluid bolus administration; and effective resuscitation team dynamics. Prerequisites: Current Healthcare Provider BLS card and completed PALS Precourse Checklist.

**NEW**

**HSCI 231**

**PALS Renewal . . . . . 0.9 Credit**

This course is offered to provide an update to current PALS providers and to renew PALS provider status. Prerequisites: Current Healthcare Provider BLS card, current PALS Provider card, and completed PALS Precourse Checklist.

**NEW**

**HSCI 233**

**PALS Instructor Course . . . . . 1 Credit**

One credit class to prepare individuals to become instructors in pediatric advanced life support. Prerequisites: Current PALS Provider is required. Recommendation of PALS Course Director or PALS Regional Faculty Member. Completion of AHA Core Instructor Course prior to class.

**NEW**

**HSCI 240**

**ALS OTEP/General Pharmacology . . . . . 0.3 Credit**

This course provides an overview of the basic principles of pharmacology as they apply to the paramedic administering medications in the field setting. Significant emphasis is placed on the pharmacokinetics and dynamics with specific drug profiles being completed in the specific treatment modalities taught in the separate courses of ALS OTEP. Prerequisite: Current certification as EMT-I/Paramedic.

**NEW**

**HSCI 241**

**ALS OTEP/Medical Legal . . . . . 0.3 Credit**

This course provides a general overview of legal considerations as they apply to the certified paramedic or EMT-Intermediate. The course focuses on standard of care issues, legal terminology, issues regarding consent to treat, refusals, Do Not Resuscitate Orders, abandonment, negligence claims, civil and tort law, certification, and proper documentation. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 242****ALS OTEP/Patient Assessment in the Field. . . . . 0.3 Credit**

This course provides an overview of patient assessment of the patient in the field. The course focuses on the general medical and trauma patient with specific emphasis on scene size-up, initial assessment, identifying life threatening emergencies, focused assessment and history, detailed and ongoing exam and the prioritization of patients. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 243****ALS OTEP/Communicable Disease. . . . . 0.3 Credit**

This course provides a general overview of communicable disease to the certified Paramedic or EMT-Intermediate. The course focuses on principles of infectious disease control, barriers to infection, and stages of infectious disease. The course further discusses the pathophysiology, identification and treatment of various blood, air, parasitic and fecal/sputum pathogens. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 244****ALS OTEP/Mass Casualty & Terrorist Incidents. . . . . 0.3 Credit**

This course provides the certified paramedic with the necessary knowledge and skills necessary to identify the Mass Casualty Incident and the possibilities of terrorist involvement. The course emphasizes the need of the paramedic to recognize the need for triage, treatment and transportation; as well as fulfill the role of each of the MCI positions as they relate to the size and complexity of the emergency. The course provides specific information on explosive, nuclear, chemical, and biological agents, as well as tools to assist EMS personnel in recognition of terrorist acts. There is a strong emphasis of scene safety for all EMS personnel. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 245****ALS OTEP/Shock Trauma Resuscitation . . . . . 0.3 Credit**

This course provides current specific assessment and management techniques to be used on the trauma patient suffering compensated, uncompensated or irreversible shock. Identifying the stage of shock and the appropriate actions to improve end organ perfusion will be the primary focus of the course. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 246****ALS OTEP/Burns & Soft Tissue Trauma . . . . . 0.3 Credit**

The purpose of this course is to review the various mechanisms and effects of soft tissue trauma, ranging from the minor laceration to the severe crush injury and compartment syndromes. Within this subject, specific pathophysiology, assessment, and management will be covered. Additionally the pathophysiology, assessment and management of all severities of burns will be addressed. At the completion of the course, students will be expected to perform specific skills pertaining to the treatment of soft tissue injuries. Prerequisite: Current certification as EMT-1/Paramedic.

**NEW****HSCI 247****ALS OTEP/Musculoskeletal Trauma. . . . . 0.3 Credit**

The purpose of this course is to review the various mechanisms and effects of musculoskeletal trauma on the human body. Pathophysiology of the trauma, assessment and management of the injury will be covered in depth. At the completion of the course, students will be expected to perform specific skills pertaining to the treatment of musculoskeletal injuries. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 248****ALS OTEP/Head & Facial Trauma. . . . . 0.3 Credit**

The focus of this course is the epidemiology and pathophysiology of head and facial trauma. Specific assessment and management techniques will be reviewed and discussed within the course. At the completion of the course, students will be expected to perform specific skills pertaining to the treatment of head and facial injuries. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 249****ALS OTEP/Neck & Spinal Trauma . . . . . 0.3 Credit**

The focus of this course is the epidemiology and pathophysiology of neck and spinal trauma. Specific assessment and management techniques will be reviewed and discussed within the course. At the completion of the course, students will be expected to perform specific skills pertaining to the treatment of neck and spinal injuries. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 250****ALS OTEP/Chest & Abdominal Trauma . . . . . 0.3 Credit**

The focus of this course is the epidemiology and pathophysiology of chest and abdominal trauma. Specific assessment and management techniques will be reviewed and discussed within the course. At the completion of the course, students will be expected to perform specific skills pertaining to the treatment of chest and abdominal injuries. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 251****ALS OTEP/Environmental Emergencies . . . . . 0.3 Credit**

The focus of this course is to provide the paramedic with additional information regarding the various medical and trauma emergencies that can evolve from exposure to a wide spectrum of environmental conditions. Drowning, altitude illnesses, diving complexes, and exposure to various reptiles and spiders are discussed. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 252****ALS OTEP/Respiratory Emergencies . . . . . 0.3 Credit**

The focus of this course is to review the pathophysiology of various pulmonary disorders that frequently affect the population. There is a heavy focus on the assessment and management of the patient suffering from various components of COPD, asthma, SARS, lung cancer and pulmonary embolism. Prerequisite: Current certification as EMT-I/Paramedic.

**NEW****HSCI 253****ALS OTEP/Neurological Emergencies . . . . . 0.3 Credit**

This course specifically targets the assessment and treatment of patients suffering from a neurological disorder. Specific illness/diseases covered include stroke, seizures, altered mental status, and syncope. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 254****ALS OTEP/Gastro & Endocrine Emergencies . . 0.3 Credit**

The purpose of this course is to provide a general overview of the assessment and treatment of acute upper and lower gastrointestinal disorders treated by paramedics in the prehospital setting. Prerequisite: Current certification as EMT-I/Paramedic.

**NEW****HSCI 255****ALS OTEP/OB-GYN Emergencies . . . . . 0.3 Credit**

The focus of this course is obstetrical and gynecological emergencies faced by the paramedic in the prehospital setting. At the completion of the course, paramedics should be able to distinguish various OB/GYN emergencies from GI emergencies and adequately provide treatment accordingly. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 256****ALS OTEP/Geriatric Emergencies . . . . . 0.3 Credit**

The focus of this course is to review the added difficulty in managing both medical and trauma emergencies involving geriatric patients. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 257****ALS OTEP/Behavioral Emergencies****& the Violent Patient . . . . . 0.3 Credit**

This course reviews the three major mental illnesses, identifies appropriate assessment techniques and discusses the appropriate treatment of these patients, to include the physical and chemical restraint of violent patients. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 258****ALS OTEP/Allergies & Anaphylaxis . . . . . 0.3 Credit**

This course specifically discusses the assessment and aggressive treatment of anaphylaxis in the prehospital setting. Prerequisite: Current certification as EMT-I/Paramedic.

**NEW****HSCI 259****ALS OTEP/Toxicologic Emergencies . . . . . 0.3 Credit**

This course reviews toxicological emergencies found in the prehospital setting and discusses the current treatment modalities of such emergencies. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 260****ALS OTEP/Advanced Airway Management . . . 0.9 Credit**

This course provides the paramedic with specific training in the techniques for securing a patent airway in the critical medical or trauma patient. Included within the course is anatomy and physiology, recognition of existing and impending airway compromise, determination of appropriate advanced maneuvers and deployment of various advanced airway skills and tools. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 261****ALS OTEP/Advanced Cardiac Life Support . . . 0.9 Credit**

This course provides recertification to the certified paramedic in Advanced Cardiac Life Support. The course focuses on ACLS as intended to be taught by the American Heart Association. In addition, focus is also applied to the modalities of care for the cardiac patient in Benton/Franklin Counties as per local protocol. Prerequisite: Current certification as Paramedic.

**NEW****HSCI 262****ALS OTEP/Pediatric Advanced Life Support . . 0.9 Credit**

This course provides recertification to the certified paramedic in Pediatric Advanced Life Support. The course focuses on PALS as intended to be taught by the American Heart Association. In addition, focus is also applied to the modalities of care for the general pediatric patient in Benton/Franklin Counties as per local protocol. Prerequisite: Current certification as Paramedic.

**NEW**

**HSCI 263**

**48 Hour Paramedic Refresher . . . . . 4.5 Credits**

This course is intended for the paramedic preparing for recertification of the National Registry of EMT-Paramedic Certification, or attempting to regain this certification. The course covers all required hours and skills required of the National Registry 48 Hour Certificate. Prerequisite: Current certification as Paramedic.

**NEW**

**HSCI 264**

**ILS OTEP/Refresher . . . . . 0.9 Credit**

This course is intended for the EMT-Intermediate as a supplement to his/her EMT-B OTEP courses. This course will focus on the additional skills and requisite knowledge of the EMT-I in the areas of assessment, pharmacology, intravenous skills and advanced airway management. Prerequisite: Current certification as an EMT- Intermediate.

**NEW**

**HSCI 265**

**Combi-Tube Endorsement Course . . . . . 0.9 Credit**

This course is intended for EMT-Basic who desires the additional endorsement to his/her certification for insertion of a dual lumen advanced airway device, (specifically Combi-Tube). Prerequisite: Current certification as an EMT-Basic.

**History**

**NEW**

**HIS 111**

**Colonial Latin America [S/B] . . . . . 5 Credits**

The primary objective of the course is to familiarize students with the major phases in colonial Latin American history and to study, analyze, and understand the most important issues that characterized and shaped this period. Some of the topics we will examine include: The conquest of the indigenous people, the imposition of Catholicism, the insertion of Latin America into the world market, the introduction and development of African slavery, independence movements, and the creation of new societies resulting from the mixing of indigenous, Iberian, and African cultures.

**NEW**

**HIS 113**

**History: Mexico Since Independence [S/B] . . . . . 5 Credits**

This course will provide students with an overview of the history of modern Mexico from the first movements towards independence at the beginning of the 19th century to the economic, political, and cultural struggles which the nation faces at the start of the 21st century. Through an examination of a number of periods and events (such as Independence, French Intervention, Mexican Revolution, and the Zapatista Uprising) that the country has experienced in the last 200 years, students will learn about the racial, economic, social, and political complexities of the Mexican past in order to understand the forces that produced contemporary Mexican society. Finally, in this course we will also pay attention to the ways Mexico's relationships with the United States and its citizens has also helped to influence the course of Mexican history since the latter part of the 19th century.

**Horticulture**

**NEW**

**HORT 202**

**Cultivated Crops . . . . . 5 Credits**

Introduction to the importance of agronomic and horticultural plants in Washington by highlighting the production, innovative research practices, processing, and utilization of the state's major crops.

**HORT 251**

**Plant Propagation . . . . . 4 Credits**

An introduction to the methods of plant propagation including methods of propagating by true seed, bulbs, divisions, layering, cuttings, budding, grafting, and micro-propagation. Emphasis is placed on the basic principles necessary to furnish an adequate understanding for commercial and industrial application. Prerequisite: Concurrent enrollment in HORT 251L.

**HORT 2511**

**Plant Propagation Lab . . . . . 1 Credit**

An introduction to the methods of plant propagation including methods of propagating by true seed, bulbs, divisions, layering, cuttings, budding, grafting, and micro-propagation. Emphasis is placed on the basic principles necessary to furnish an adequate understanding for commercial and industrial application. Prerequisite: Concurrent enrollment in HORT 251.

**Japanese**

**NEW**

**JPSE 201**

**Japanese Fourth Quarter [H] . . . . . 5 Credits**

Extensive practice in all four language skills (reading, writing, speaking, and listening). The course includes cultural readings and includes an in-depth review of basic Japanese grammar, expansion of basic vocabulary, and a broadening of the student's understanding of Japanese culture (including geography, customs, daily life, and heritage). Prerequisite: JPSE 103 or instructor's permission.

## Machine Technology

**NEW**

### MT 201

#### **Introduction to Engineering Materials Science. . 5 Credits**

As an introductory course, the goal is to learn the fundamental nature of engineered materials, as applied to a Machine Technology Certificate or as a qualifying transfer class to bachelor program at a four-year institution. Instruction will start with the basics of how materials are organized on the atomic, microscopic and macroscopic levels, how and why these produce a finished project. Though this course is more practical to the common processes used today, it will also introduce new trends in materials manufacturing for sustainability, automation and some of the recent developments in materials science using polymers, composites, ceramics and advanced metal alloys. Materials science and engineering is an exciting field and an understanding of it is vital for technologists and engineers alike.

## Mathematics

### MTH 098

#### **Algebra Review 3 . . . . . 5 Credits**

The third course of a three-quarter sequence (MTH 096, MTH 097, MTH 098) which covers Elementary and Intermediate Algebra. Topics include: Graphs of lines and parabolas, systems of equations, operations with radical expressions, complex numbers, solving quadratic equations, functions and applications of the aforementioned. A grade of 2.0 or better in this class will satisfy the Intermediate Algebra Proficiency requirement for the AA degree. Prerequisite: Grade of 2.0 or better in MTH 097.

**NEW**

### MTH 111

#### **Automotive Math. . . . . 5 Credits**

Mathematical concepts listed in the Automotive Trades including algebraic functions, geometry, interest, discounts, brief review of micrometer reading and the physics of engine design. Required by Automotive for AAS degree; does not satisfy Math requirement for AA degree. Prerequisite: MTH 084 or COMPASS Test placement.

### MTH 147

#### **Finite Math [M/S] [Q/SR]. . . . . 5 Credits**

Fundamental concepts of mathematics emphasizing appreciation and respect for precise definitions and logical reasoning. A course *especially* suited for students in the behavioral, managerial and social sciences. Topics include matrices, systems of linear equations and inequalities, finance, probability and counting techniques, game theory, decision analysis and Markov chains. Prerequisite: Grade of 2.0 or better in MTH 095, MTH 098 or ASSET/COMPASS test placement.

## Medical Assistant

### MA 111

#### **Pharmacology I. . . . . 5 Credits**

This class will provide a basic knowledge of pharmacology including the legal ethical issues, the terms and abbreviations, the involvement of governmental agencies, the role of the providers and allied health professional, reading, interpreting and documenting the medication orders; and the effects of medication and common drugs used with each body system including antioplastics, analgesics, antipyretics, nutritional supplements and alternative medicines. Prerequisites: MTH 082 or ASSET score of MTH 083. Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509) 547-0511 ext. 4000.

### MA 114

#### **Human Body Structure, Function, and Diseases I . . . . . 4 Credits**

This is the first of two structure and function classes introducing cellular function, organ systems of the body, the anatomy and physiology of the integumentary, skeletal, muscular, nervous, endocrine systems, the senses and the blood, and the common diseases and their pathology of each of these body systems. Prerequisites: AOT 147/HIT 147. Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509) 547-0511 ext. 4000.

### MA 115

#### **Clinical Procedures Theory I. . . . . 4 Credits**

This class provides a theoretical foundation in medical asepsis and infection control, vital signs, phlebotomy, the medical record, physical agents to promote tissue healing, radiology, sterilization and disinfection, minor office surgery, eye and ear assessment and procedures, the physical examination, and hematology. Prerequisite: Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

### MA 115I

#### **Clinical Procedures Lab I . . . . . 4 Credits**

This lab class provides for a practice in basic patient exam techniques/procedures/lab tests commonly performed in the physician's office or clinic. Lab to be taken concurrently with MA 115. Prerequisite: Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

### MA 141

#### **Career Development for Medical Assistants . . . . 2 Credits**

This class will cover professionalism in a medical office, successful job search, interview techniques, the importance of networking, and how to be successful on the job. Prerequisite: Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**NEW**

**MA 143**

**Administrative Medical Assistant**

**Office Procedures . . . . . 5 Credits**

This course will help define the front office roles and responsibilities of an Administrative Medical Assistant. Major topics covered are a history of the profession, patient education, performing administrative office duties including reception, introductory-level bookkeeping and billing, and externship requirements materials. Prerequisite: AOT 147/HIT 147; concurrent with HIT 155. Prerequisite: Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509) 547-0511 ext. 4000.

**MA 211**

**Pharmacology II . . . . . 5 Credits**

This is the second of two Pharmacology classes. This class includes the administration of medication including: Safety and quality assurance, enteral, percutaneous, and parenteral routes of medication, medication for multi-system application, and medications related to body systems. Prerequisites: MTH 082 or ASSET score of MTH 083. Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**MA 214**

**Human Body Structure, Function, and Diseases II . . . . . 4 Credits**

This is the second of two body classes and includes the circulatory system, lymphatic system and immunity, the respiratory system, the digestive system, nutrition and metabolism, the urinary system, fluid and electrolyte balance, acid-base balance, the reproductive system, and growth and development, and the common diseases and their pathology of each of these body systems. Prerequisites: AOT 147/HIT 147. Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**MA 215**

**Clinical Procedures Theory II . . . . . 4 Credits**

This class provides a theoretical foundation for the gynecological exam and prenatal care pediatric exam, cardiopulmonary procedures, colon, procedures, introduction to the clinical laboratory, urinalysis, phlebotomy, hematology, blood chemistry and serology, medical microbiology, and office emergencies. Prerequisite: Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**MA 2151**

**Clinical Procedures Lab II . . . . . 4 Credits**

This class provides for a practice in basic patient exam techniques/procedures/lab tests commonly performed in the Provider's office or clinic. Lab to be taken concurrently with MA 215. Prerequisite: Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**MA 241**

**Externship Seminar . . . . . 1 Credit**

This course is to be taken concurrently with the Externship for Medical Assistants. The seminar will provide current information regarding workplace issues, technologies, and advancements in healthcare pertinent to the Externship experience. Students will be engaged in discussions based on their experiential learning opportunities within the Externship. Prerequisites: Successful completion of all other Medical Assistant courses with a GPA of 2.0 or higher. Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**MA 2413**

**Externship . . . . . 6 Credits**

This class provides an opportunity to apply the theory learned in the classroom setting to a healthcare setting through practical, hands-on experience. Prerequisites: Successful completion of all other Medical Assistant courses with a GPA of 2.0 or higher. Required admission into the Medical Assistant program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**Medical Imaging Technology**

**NEW**

**IMAGE 225**

**Mammography . . . . . 4 Credits**

An in-depth analysis of mammographic positioning, exposure techniques, quality control, film critiquing, and radiation safety. Prerequisites: Currently enrolled in an approved Radiologic Technology program or ARRT Certified Radiologic Technologist.

**NEW**

**IMAGE 229**

**Mammography Clinical . . . . . 4 Credits**

Students are assigned to a mammography department for 132 hours to satisfy clinical competency requirements of the ARRT for eligibility to sit for the ARRT advanced level exam in mammography. Prerequisite: Acceptance into program.

**NEW**

**IMAGE 250**

**Cross Sectional Anatomy . . . . . 3 Credits**

Course presents normal human anatomy in various planes using CT, MR, Interventional, and Cardiac Cath images. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 251**

**Advanced Sectional Anatomy . . . . . 2 Credits**

Designed for students having completed a cross-sectional anatomy course. Neuro and vascular anatomy and sectional images of joint and extremity body areas will be presented with CT and MRI images. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 265**

**Body Pathophysiology. . . . . 3 Credits**

Presents pathologies of the abdomen, chest, and neck with physiological implications pertinent to CT, MR, Interventional, and Cardiac Cath imaging modalities. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 266**

**Neuropathophysiology . . . . . 3 Credits**

Presents neurological based pathologies and the related diagnostic/interventional procedures applied in evaluation and treatment of them. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 270**

**CT Clinical Practicum I . . . . . 12 Credits**

Provides hands-on experience in the clinical setting. Students perform designated tasks associated with CT scanning and procedures under direct and indirect supervision. Completion of this course prepares the student for entry-level work in a CT department. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 271**

**MRI Clinical Practicum II . . . . . 12 Credits**

Provides hands-on experience in the clinical setting. Students perform designated tasks associated with MRI scanning and procedures under direct and indirect supervision. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 280**

**CT Instrumentation . . . . . 3 Credits**

Designed to provide didactic preparation for advanced-level certification exam in CT scanning. Includes information pertaining to the equipment used, clinical application, specific technique applications, patient care and quality control. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**NEW**

**IMAGE 281**

**MRI Instrumentation and Procedures . . . . . 3 Credits**

Presents the physics of magnetization, image production, image weighting, pulse responses, scanning procedures, magnet safety, and the role of the technologist. Prerequisites: Currently enrolled in an approved Radiologic Technology Program, ARRT Certified Radiologic Technologist, ARRT Certified Radiation Therapist, or NMTCB Certified Nuclear Medicine Technologist.

**Nuclear Medicine Technology**

**NEW**

**NMTEC 200**

**Applied Anatomy & Physiology . . . . . 1 Credit**

Studies human anatomy and physiology as they apply to nuclear medicine imaging. Specific organ systems covered include skeletal, circulatory, cardiac, pulmonary, gastrointestinal, immune, excretory, endocrine, and central nervous systems. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 201**

**Basic Nuclear Medicine Science . . . . . 3 Credits**

Presents basic science required for nuclear medicine. Topics include types of radiation, half-life and radioactive decay, interactions of radiation, detection instruments, statistics of radiation counting, basic radiation protection, and introduction to gamma camera. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 202**

**Instrumentation . . . . . 3 Credits**

Examines the function and use of the nuclear medicine gamma camera. Topics include basic electronics, collimators, digital cameras, on-line correction systems, and modifications required for tomographic studies. Students learn quality control and troubleshooting. Also includes positron emission tomography. Prerequisite: Acceptance into program.



**NEW**

**NMTEC 203**

**Computers in Nuclear Medicine. . . . . 3 Credits**

Introduces the use of computers in nuclear medicine, emphasizing analysis of static, dynamic, and tomographic images. Prerequisites: Acceptance into program.

**NEW**

**NMTEC 210**

**Radiopharmacy. . . . . 1 Credit**

Studies all commonly used nuclear medicine pharmaceuticals, their preparation, indications for use, dosages, and contraindications. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 211**

**Nursing Procedures. . . . . 1 Credit**

Presents nursing procedures relating to nuclear medicine. Topics include patient assessment, oxygen administration, infection control, intravenous drug administration, vasovagal and anaphylactic reactions, basic pharmacology, sedation, medical and legal issues, cardiac physiology and electrocardiography. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 212**

**Positron Emission Tomography . . . . . 1 Credit**

Covers all aspects of Positron Emission Tomography (PET), including issues relating to implementation and reimbursement for PET scans, approved clinical indications for PET imaging, biochemistry of fluorodeoxyglucose (FDG), clinical aspects of FDG imaging, new PET radiopharmaceuticals, and PET/CT fusion imaging. Applications of PET to research. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 229**

**Introduction to Clinical Education . . . . . 3 Credits**

Provides the student with basic understanding of nuclear medicine instruments and procedures, with an emphasis on the operation of a gamma camera, basic radiopharmacy and radiation safety principles, and patient care procedures. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 230**

**Clinical Education I. . . . . 10 Credits**

First in a five-course sequence of supervised clinical instruction in nuclear medicine technology. Topics including imaging, patient care, radiopharmacy, camera quality control, and computer analysis. Students are expected to gain proficiency according to defined objectives. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 231**

**Clinical Education II . . . . . 10 Credits**

Second in a five-course sequence of supervised clinical instruction in nuclear medicine technology. Topics include imaging, patient care, radiopharmacy, camera quality control, and computer analysis. Students are expected to gain proficiency according to defined objectives. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 232**

**Clinical Education III . . . . . 10 Credits**

Third in a five-course sequence of supervised clinical instruction in nuclear medicine technology. Topics include imaging, patient care, radiopharmacy, camera quality control, and computer analysis. Students are expected to gain proficiency according to defined objectives. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 233**

**Clinical Education IV . . . . . 13 Credits**

Fourth in a five-course sequence of supervised clinical instruction in nuclear medicine technology. Topics include imaging, patient care, radiopharmacy, camera quality control, and computer analysis. Students are expected to gain proficiency according to defined objectives. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 234**

**Clinical Education V . . . . . 13 Credits**

Fifth in a five-course sequence of supervised clinical instruction in nuclear medicine technology. Topics include radiopharmacy, positron emission tomography, nuclear cardiology, and pediatrics. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 240**

**Radiation Safety . . . . . 1 Credit**

Covers principles and practices for radiation safety. Topics include calculation of doses absorbed from procedures, personnel monitoring, handling and disposal of radioactive materials, and licensing of a nuclear medicine department. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 241**

**Radiation Biology. . . . . 1 Credit**

Discusses the potentially harmful effects of radiation on humans. Topics include the basic chemistry of radiation interactions in living cells, the effects of extensive radiation exposure, and the potential long-term effects of accumulated radiation damage. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 250**

**Sectional Anatomy for Nuclear Medicine. . . . . 3 Credits**

Presents sectional anatomy of the body, including a brief introduction to the following imaging modalities: CT, MRI, angiography, and ultrasound. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 260**

**Clinical Nuclear Medicine I. . . . . 1 Credit**

Presents nuclear medicine from the technologist's standpoint, emphasizing the technical aspects and pitfalls of nuclear medicine procedures. NMTEC 260 lectures are coordinated with NMTEC 200. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 261**

**Clinical Nuclear Medicine II. . . . . 1 Credit**

Presents nuclear medicine from the physician's standpoint, emphasizing the diagnosis of disease and ways in which the technologist can assist the physician making a correct diagnosis. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 262**

**Clinical Nuclear Medicine III . . . . . 1 Credit**

Discusses advanced topics related to imaging and non-imaging procedures. Topics include Schilling test, H.pylori breath testing, blood volume determination, radioimmunotherapy, and advanced topics in nuclear cardiology, nuclear neurology, and bone densitometry. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 275**

**Board Preparation . . . . . 1 Credit**

Prepares students for the NMTCB exam by reviewing all aspects of nuclear medicine technology and giving practice tests. Students focus on practical application of the basic science knowledge gained throughout the program. Students also complete a capstone project. Prerequisite: Acceptance into program.

**NEW**

**NMTEC 280**

**CT for the Nuclear Medicine Technologist . . . . 3 Credits**

Provides didactic instruction in CT scanning, as is pertinent to its application to nuclear medicine procedures. Includes information pertaining to production and detection of X-rays in CT, instrumentation and image reconstruction, specific technique applications, patient care and quality control. Prerequisite: Acceptance into program.

**Nursing**

**NRS 1411**

**Practical Nursing Lab . . . . . 1-6 Credits**

This course provides a basic understanding in the role of the Licensed Practical Nurse. This quarter is designed to expand on the student's knowledge and skill base as well as help the student to recognize and identify specific situation and problem areas which require critical thinking and problem-solving skills. Current issues in healthcare and the Washington State Laws related to the Licensed Practical Nurses will be reviewed. It is also designed to assist in the transition of student to graduate Practical Nurse and meet the eligibility requirements to write the State Board Exam for Licensure. Team-Leading and delegation principles will be introduced and the student will be participating in planned team-leading activities in the clinical setting. Additionally, an introduction to community health nursing will be provided. Prerequisites: Successful completion of NRS 131/NRS 1311, or the student is a Licensed Practical Nurse and has met the requirements for entrance into the Advanced Placement Program.

**Phlebotomy**

**PHLEB 100**

**Phlebotomy I. . . . . 4 Credits**

This first quarter is lecture for the two quarter sequence. Students must pass this first quarter with 70% or higher in order to continue into the following quarter, PHLEB 1001 Lab. Prerequisite: AOT 147/HIT 147 with a grade of 2.0 or higher. Malpractice Insurance fees are added into the registration. A Washington state background check must be completed prior to admittance into this course. Immunization records must be presented the first day of class. Acceptance into the Phlebotomy program. Information available at the Health Sciences division office (509)547-0511 ext. 4000.

**Physical Education**

**PE 1131**

**Aerobic Dance II [PE] . . . . . 1 Credit**

Continued study and advanced techniques of this activity. Dance steps and routines executed to increase cardiovascular rate. Students test and record improvements in pulse rates and pulmonary recovery. Prerequisite: PE 1121.

**PE 1141**

**Aerobic Dance III [PE] . . . . . 1 Credit**

Advanced study in this activity. Dance steps and routines rigorously executed for improving cardiovascular rate and leading to figure trimming and toning. Improvements will be tested and recorded. Prerequisite: PE 1131.

**NEW**

**PE 1161**

**Pilates [PE] . . . . . 1 Credit**

An introductory course to Pilates. The course will emphasize physical exercises, breathing, core strength and stability, and muscle awareness.

**PE 1271  
Fitness Center I [PE] ..... 1-2 Credits**

A total fitness program that develops individual fitness levels in cardiovascular training with benefits of weight training to improve muscle tone and physical conditioning.

**PE 1281  
Fitness Center II [PE] ..... 1-2 Credits**

A continuation of the total fitness program with more involvement in strength, flexibility, muscle toning, aerobic exercise, and body composition.

**PE 1291  
Fitness Center III [PE]..... 1-2 Credits**

An advanced, self-paced approach to fitness through the use of specialized exercises, multiple weight machines, and aerobic equipment.

**PE 1411  
Softball II [PE] ..... 1 Credit**

Designed for the intermediate softball player. Additional work of strategy, individual, and team offensive/defensive techniques will be taught. Skills and knowledge of rules will be tested. Prerequisite: PE 1401.

**PE 1461  
Soccer II [PE] ..... 1 Credit**

Soccer II is designed for the intermediate player. Review of the basic skills taught in the beginning course. Additional work on strategy, defensive techniques. Prerequisite: PE 1451.

**PE 1471  
Soccer III [PE]..... 1 Credit**

Soccer III is designed for the advanced player. Advanced strategy, team defensive, and team offensive techniques will be taught. Skills and rules will be tested. Prerequisite: PE 1461.

**NEW**

**PE 180  
Adaptive Physical Education [PE]..... 2 Credits**

This course is a study of the history, current global perspective, current trends and laws regarding the opportunity for people with challenges and limitations to participate in physical activity and sports.

**NEW**

**PE 1801  
Adaptive Physical Education Lab [PE]..... 1 Credit.**

Lab to be taken concurrently with PE 180.

**PE 1811  
Swimming [PE]..... 1 Credit**

This course is designed to provide students with the basic fundamental skills to become a proficient safe swimmer. Students will learn these skills: rhythmic breathing, breath holding, leveling off from vertical position, floats in both supine and prone positions, arm strokes for front crawl, back stroke, side stroke, breast stroke and the front dive.

**PE 1871  
Baseball I [PE]..... 1-2 Credits**

Introduces the student to basic skills of baseball. Student will be given instruction in all phases of the game, with main purpose being to gain an understanding of fundamentals.

**PE 1881  
Baseball II [PE] ..... 1 Credit**

Students will expand their knowledge of the skills of baseball taught at the beginning level. Team strategy will be taught at a more advanced level. Prerequisites: PE 1871.

**PE 1891  
Baseball III [PE] ..... 1 Credit**

Advanced level of skills will be taught, and theory of baseball strategy will be introduced in all phases of the game. Specific drills will be used for development of specialized skills. Prerequisites: PE 1881.

**Physical Education  
Professional**

**NEW**

**PEC 182  
Care and Prevention of Athletic Injuries II . . . . 2 Credits**

This course is a continuation of the study as to the causes of athletic injury with a focus on rehabilitation. Theories, implications, and techniques such as; rehabilitation program development, re-evaluations, communication with the medical community, and modalities are researched. Prerequisite: PEC 180.

**NEW**

**PEC 1821  
Care and Prevention of Athletic Injuries II Lab . . 1 Credit**

Lab to be taken concurrently with PEC 182.

**NEW**

**PEC 183  
Athletic Training Internship ..... 2 Credits**

This course is for students interested in transferring to a four-year Athletic Training Program and therefore need to complete a minimum of 100 internship hours under the supervision of a Certified Athletic Trainer. The internship consists of practical work in the training room and with sports programs. Prerequisite: PEC 180.

**NEW**

**PEC 1831  
Athletic Training Internship Lab ..... 1 Credit**

Lab to be taken concurrently with PEC 183.

**PEC 242  
Theory of Basketball . . . . . 2 Credits**

Advanced concepts and theory in basketball coaching and continuation of fundamentals of basketball will supply students with up-to-date information concerning fundamentals, practice organization, game preparation, and player evaluation. Prerequisite: PEC 235.

**PEC 248  
Theory of Baseball I. . . . . 2 Credits**

Introduces the student to the complexities of offensive and defensive strategies. A complete review of the mental aspects of individual and team play. Prerequisite: PEC 250.

**Speech**

*NEW*

**SPE 241  
Applied Leadership I. . . . . 2 Credits**

This course will explore leadership skills, concepts and theories as it relates to student involvement on campus. Prerequisite: Instructor's permission.

*NEW*

**SPE 242  
Applied Leadership II . . . . . 2 Credits**

A continuation of SPE 241, this course will explore leadership skills, concepts and theories as it relates to student involvement on campus. Prerequisite: Instructor's permission.

*NEW*

**SPE 243  
Applied Leadership III . . . . . 2 Credits**

A continuation of SPE 242, this course will explore leadership skills, concepts and theories as it relates to student involvement on campus. Prerequisite: Instructor's permission.

**SPE 260  
Multicultural Communications [C] . . . . . 5 Credits**

Multicultural Communications will teach the student culturally-sensitive methods of identifying basic problems involving communication failures across ethnic and racial settings. The course is designed to encourage participants to explore their own cultural identities in relationship to their cultures and those of others in order to improve the quality of their interpersonal communication skills. They will also learn to apply various multicultural approaches to behavior modification, racism, sexism, the valuing of cultural diversity, collaboration, and the move toward inherent pluralism. Prerequisite: ENG 101.

**Theatre**

**THA 2251  
*Touring Children's Theatre* . . . . . 1-3 Credits**

This course involves adapting and developing material from children's stories and original literature into theatrical presentations. Emphasis is on ensemble acting and improvisation skills. The second half of the quarter focuses on performance as group tours area grade schools.

**Welding Technology**

*NEW*

**WT 144  
Welding Upgrade . . . . . 0.5-1 Credit**

This course provides an opportunity for journeyman welders to upgrade their skills for current employment opportunities. Prerequisite: Instructor's permission. Credits depend on how many hours.

*NEW*

**WT 154  
WABO Testing . . . . . .0.5-2 Credits**

This course provides required testing to meet the standards for structural steel welding. When the student passes the test, the Welding Department submits required test results to the Washington Association of Building Officials. (WABO) and they issue Certification to the student. Prerequisite: Instructor's permission. Credits depend on what type of test.



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