Diablo Valley College Mission Statement
Diablo Valley College is passionately committed to student learning through the intellectual, scientific, artistic, psychological, and ethical development of its diverse student body. Diablo Valley College prepares students for transfer to four-year universities; provides career/technical education; supports the economic development of the region; offers pre-collegiate programs; and promotes personal growth and lifelong learning.

Adopted by the Contra Costa Community College District Governing Board on April 29, 2009
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ARTDM-165  Cartoon Drawing for Digital Animation
3 units  SC
• May be repeated once
• 36 hours lecture/54 hours laboratory per term
• Recommended: ART 105 or equivalent
• Note: Course may be repeated only when software is revised. Credit by examination option available.
This course will introduce students to the skills necessary to create character animations, script development and story board animations. Students will survey the history of animation and be exposed to the techniques of animated drawing. It is designed to prepare students to develop a particular style of animation in any of a wide variety of other digital media courses. This course is designed as a good companion to and/or preparation for ARTDM 170 and/or ARTDM 160. CSU
DEGREE AND CERTIFICATE CORRECTIONS

strikethrough = deletion  underline = addition

BUSINESS ACCOUNTING – BUSAC

Associate in science degree - Accounting
This curriculum is designed to provide an opportunity for accounting students to achieve an associate in science degree in accounting after completing a comprehensive series of courses in the area of accounting. Completion of this curriculum satisfies the accounting unit requirement to take the California CPA exam (For additional requirements please go to www.dca.ca.gov/cba), demonstrates commitment to the field of accounting, and provides comprehensive preparation for employment in accounting-related occupations. This degree is not intended for transfer students. DVC accounting students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are also advised to select either General Education Option 2 (IGETC) or Option 3 (CSU G.E.). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate degree with a major in accounting students must complete each course used to meet a major requirement with a “C” grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major and complete all graduation requirements listed in the catalog. Students must complete at least 25 percent of all business-related course work at Diablo Valley College, complete all graduation requirements, and complete at least 25 percent of all business-related course work at Diablo Valley College. Certain courses may satisfy both major and other graduation requirements; however, the units are only counted once.

major requirements  units
BUSAC 185  QuickBooks Accounting for Business I ..........1.5
BUSAC 188  QuickBooks Accounting for Business II ..........1.5
BUSAC 190  Payroll Accounting ...........................................1.5
COOP 170  Occupational Work Experience Education ....1-4

plus at least 12 units from:
BUS 294  Business Law .......................................................... 3
BUSAC 282  Intermediate Accounting .................................3
BUSAC 283  Auditing ............................................................ 3
BUSAC 284  Cost Accounting ................................................. 3
BUSAC 285  Federal Income Taxes – Individuals ................. 3
BUSAC 286  Governmental and Not-For-Profit Accounting . 3
BUSAC 290  Corporate Financial Reporting and Financial Statement Analysis .............................................. 3

plus at least 3 units from:
BUS 209  International Business ...........................................3
BUS 240  Business Statistics .................................................... 3
BUS 250  Business Communications I ................................. 3
BUSMG 191  Small Business Management .......................3
BUSMG 192  Entrepreneurship and Venture Management .... 3

total minimum required units 28

NEW DEGREES AND CERTIFICATES

strikethrough = deletion  underline = addition

ART – ART

Associate in arts degree
Fine arts

Certificates of achievement
Ceramics
Painting and drawing
Printmaking

Certificate of achievement - Ceramics
A certificate of achievement in ceramics offers a variety of beginning courses within the field of three-dimensional art. The program will introduce both techniques and concepts of ceramics in an academic context. The program requirements are designed for those interested in ceramics as professional practice and provide exposure to the discipline that may help students decide to continue their studies at a four year institution. The ceramics major is available at UC and CSU systems, the San Francisco Art Institute, the California College of Arts, and at other colleges of art and schools of design.

Students seeking to complete an associate in arts degree in fine arts may choose to supplement that award with a certificate of achievement in ceramics. The fine art curriculum develops students’ critical thinking skills, hones problem-solving skills, and establishes visual literacy in the ceramic medium. The ceramics certificate offers technical training related to the commercial ceramic industry and can lead to career opportunities that include: art educator, exhibiting artist, hand-made production potter, ceramic art studio assistant, art therapy intern, creative tile designer, tile producer, mosaic muralist, portrait sculptor, industrial ceramics
product designer, industrial ceramics shop manager, ceramic engineering intern, museum or gallery assistant, art dealer, art critic and other professions in creative, hands-on endeavors.

The certificate of achievement has three components. The first component is a core of two required foundations: one introductory drawing/design class and an art history class. The second component is five classes of ceramics (three required, two elective). The third component is one studio art course outside ceramics.

To earn a certificate, students must complete each course with a “C” grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

**required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Introduction to Drawing, Color, and Two Dimensions</td>
<td>3</td>
</tr>
<tr>
<td>ARTHS 199</td>
<td>Contemporary Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART 152</td>
<td>Wheel Thrown Ceramic Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 155</td>
<td>The Art of Ceramic Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 299</td>
<td>Student Instructional Assistant</td>
<td>0.5-3</td>
</tr>
</tbody>
</table>

*minimum 2 units required

**plus at least 9 units from:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ART 153</td>
<td>Wheel Thrown Ceramic Art II</td>
<td>3</td>
</tr>
<tr>
<td>ART 154</td>
<td>Hand-Built Ceramic Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 156</td>
<td>Figurative Ceramic Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART 298</td>
<td>Independent Study</td>
<td>0.5-3</td>
</tr>
</tbody>
</table>

**total minimum required units** 23

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**Certificate of achievement - Printmaking**

The certificate of achievement in printmaking includes fundamental courses within the field of printmaking. The program will introduce both techniques and concepts of printmaking in an academic context. The program requirements are designed for those interested in printmaking as a professional practice and may provide preparation for transfer. The printmaking major is available at UC and CSU systems, the San Francisco Art Institute, the California College of Arts, and at other colleges of art and schools of design. Students who wish to transfer must consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met.

Students whose educational goal is the associate in arts in fine arts may choose to supplement the degree with a certificate of achievement in printmaking. The fine arts curriculum develops a student’s critical thinking skills, hones problem-solving skills, and establishes visual literacy in print media. Career opportunities that may be enhanced by the printmaking certificate include: printmaking exhibiting artist, print dealer, printmaking educator, graphic designer, illustrator, internships and paid apprenticeships in print publishers, and work in print shops including those specializing in etching, woodblock, letterpress, monotype, and silkscreen processes.

To earn the certificate, students must complete each course with a “C” grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

**required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ART 105</td>
<td>Introduction to Drawing, Color, and Two Dimensions</td>
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<tr>
<td>ART 126</td>
<td>Oil/Acrylic Painting I</td>
<td>3</td>
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<tr>
<td>ARTHS 197</td>
<td>History of Baroque to Early 20th Century Art</td>
<td>3</td>
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</tbody>
</table>

**plus at least 6 units from:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
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<td>Drawing and Composition</td>
<td>3</td>
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<tr>
<td>ART 107</td>
<td>Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 120</td>
<td>Watercolor I</td>
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<tr>
<td>ART 125</td>
<td>Color Theory and Its Application to 2-D Media</td>
<td>3</td>
</tr>
<tr>
<td>ART 135</td>
<td>Art Gallery/Museum Management</td>
<td>3</td>
</tr>
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<td>ARTDM 112</td>
<td>Digital Imaging for the Artist</td>
<td>3</td>
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**total minimum required units** 15
ART DIGITAL MEDIA – ARTDM

Associate in arts degrees
Art digital media
Graphic design

Certificates of achievement
Art digital media - Character animation
Art digital media - Digital audio
Art digital media - Digital imaging
Art digital media - Motion graphics
Art digital media - 3D Modeling and animation
Art digital media - Web design
Graphic design

Certificate of accomplishment
Art digital media - Foundation

Associate in arts degree – Graphic design
This degree program provides students with a strong foundation in the fundamental aspects of graphic design and digital art. Students develop creativity and ideation skills, learn the theories of communication design and apply this to a wide range of design situations. The program is hands-on, integrating conceptual design studies with traditional and digital tools and production methods. The program goal is to provide the skills necessary to enter this growing, professional field.

Some examples where students might find employment using their design and illustration skills might include website design and development, design and illustration of electronic magazines and books, design of interactive marketing presentations, interactive learning products, scientific visualizations, etc. Advanced students have the opportunity to complete professional career preparation courses that deal with specific business issues relevant for designers, illustrators, and digital artists.

DVC graphic design students who intend to transfer must consult with a program advisor to select appropriate courses and are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU Breadth). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in arts degree with a major in graphic design, students must complete each course used to meet a major requirement with a “C” grade or higher. Degree requirements can be completed by attending classes in the day, evening, online or a combination of those. Some courses may satisfy both major and general education requirements; however, the units are only counted once.

Check the course catalog for the most accurate and detailed information.

Certificate of achievement – Graphic design
This certificate program provides students with a strong foundation in the fundamental aspects of graphic design and digital art. Students develop creativity and ideation skills, learn the theories of communication design and apply this to a wide range of design situations. The program is hands-on, integrating conceptual design studies with traditional and digital tools and production methods. The program goal is to provide the skills necessary to enter this growing, professional field.

Some examples where students might find employment using their design and illustration skills might include website design and development, design and illustration of electronic magazines and books, design of interactive marketing presentations, interactive learning products, scientific visualizations, etc. Advanced students have the opportunity to complete professional career preparation courses that deal with specific business issues relevant for designers, illustrators, and digital artists.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Required courses are available in the evening and during the day.

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<th>Units</th>
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<tr>
<td>ART 106 Drawing and Composition</td>
<td>3</td>
</tr>
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<td>ART 110 Intro. to Printmaking</td>
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<tr>
<td>ART 140 Intro. to Sculpture and 3-D Design</td>
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<tr>
<td>ARTDM 117 Digital Illustration</td>
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<tr>
<td>ARTDM 136 Intro. to Digital Photography</td>
<td>3</td>
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<tr>
<td>ARTDM 171 Intro. to Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTDM 190 Digital Media Projects</td>
<td>3</td>
</tr>
<tr>
<td>ARTDM 214 Intro. to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTDM 224 Typography</td>
<td>3</td>
</tr>
<tr>
<td>ARTHS 199 Contemporary Art History</td>
<td>3</td>
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</tbody>
</table>

Total minimum required units 36

DVC graphic design students who intend to transfer must consult with a program advisor to select appropriate courses and are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU Breadth). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in arts degree with a major in graphic design, students must complete each course used to meet a major requirement with a “C” grade or higher. Degree requirements can be completed by attending classes in the day, evening, online or a combination of those. Some courses may satisfy both major and general education requirements; however, the units are only counted once.

Check the course catalog for the most accurate and detailed information.

Certificate of achievement – Graphic design
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Some examples where students might find employment using their design and illustration skills might include website design and development, design and illustration of electronic magazines and books, design of interactive marketing presentations, interactive learning products, scientific visualizations, etc. Advanced students have the opportunity to complete professional career preparation courses that deal with specific business issues relevant for designers, illustrators, and digital artists.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Required courses are available in the evening and during the day.

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<tr>
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<td>3</td>
</tr>
<tr>
<td>ARTDM 190 Digital Media Projects</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>ARTDM 224 Typography</td>
<td>3</td>
</tr>
<tr>
<td>ARTHS 199 Contemporary Art History</td>
<td>3</td>
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</tbody>
</table>

Total minimum required units 36
plus at least of 3 units from:
ARTDM 110  Digital Imaging Process and Technique I ..........1.5
ARTDM 111  Digital Imaging Process and Technique II ..........1.5
ARTDM 112  Digital Imaging for the Artist 3

total minimum required units  36

BUSINESS – BUS

Associate in arts degree
Business - transfer

Associate in science degree
Business

Specializations:
Advanced general business
Business marketing
Management and leadership studies
Real estate
Small Business management/entrepreneurship
Wealth management

Associate in science degree for transfer
Business administration

Certificates of achievement
Advanced general business
Business - transfer
Business marketing
General business
Management and leadership studies
Real estate
Small business management/entrepreneurship
Wealth management

Certificate of accomplishment
Business essentials

Associate in science degree in business administration for transfer
The associate in science in business administration for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn the degree, students must complete a minimum of 60 required term units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Consider the AA business transfer degree as an alternative choice.

required courses
BUS 294  Business Law .................................................3
BUSAC 186  Financial Accounting .....................................4
BUSAC 187* Managerial Accounting ..............................4
ECON 220* Principles of Macroeconomics .......................3
ECON 221* Principles of Microeconomics ..........................3

plus at least of 3 units from:
BUS 240* Business Statistics ..........................................3
MATH 142  Elementary Statistics with Probability ...............4
MATH 181  Finite Mathematics .........................................3
MATH 182* Calculus for Management, Life Science and Social Science I ........................................3
MATH 192* Analytic Geometry and Calculus I ....................4

plus at least of 5 units from:  5-8 units
any course not used above:
BUS 109  Introduction to Business ....................................3
BUS 250  Business Communications ..............................3
BUSIM 145  Business Spreadsheet Applications ..................2

total minimum units required  25

*DThese courses have specific prerequisites. See course description for details.

DANCE – DANCE

Associate in arts degree
Dance

Associate in art degree - Dance
The associate in arts degree in dance is a comprehensive two-year course of study that exposes students to all aspects of the dance discipline. Students will be provided with a solid foundation in dance movement, performance and theory, and as well as an opportunity to explore related types of performing arts such as drama and music. Students will improve the technical aspects of their dance technique, gain knowledge in compositional methodology, and perform in dance concerts.

Students may apply this knowledge to work in areas such as commercial dance, choreography, dance therapy and dance instruction. Students wishing to pursue a career in the field of dance should consider this two year program as it provides preparation for immediate entry into some of the areas listed above and provides a basic foundation for transfer to baccalaureate degrees necessary in other dance disciplines.

While most of the dance major requirements are transferable and many meet prerequisites required of dance majors, this degree is not designed as a transfer curriculum. Students may use any of the three general education patterns for this degree (DVC, IGETC, CSU-GE). Students who wish to transfer to four-year institutions must consult with program faculty and college counselors to insure that the requirements for transfer to the four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or General Education 3 (CSU GE). General Education Option 1 (DVC GE) is appropriate for students who do not intend to transfer.
To earn an associate in arts degree in dance, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all graduation requirements as listed in the catalog. Certain courses may satisfy both a major and general education requirements; however, the units are only counted once.

### Core requirements:

**Art/music/humanities requirements:**
- complete at least 3 units from:
  - DRAMA 140 History of Theater: Pre-Greek to 17th Century
  - DRAMA 141 History of Theater: 17th Century to Present
  - DRAMA 180 Literature of World Drama: Pre-Greek to 17th Century
  - DRAMA 181 Literature of World Drama: 17th Century to Present
  - MUSIC 114 World Music
  - HUMAN 105 Introduction to Humanities: Arts and Ideas

**Core theory and performance requirements:**
- DANCE 201 Western Dance History: 20th Century to Present
- DANCE 205 Music Theory for Dancers
- DANCE 240 Dance Choreography
- DANCE 244 Repertory Dance Production
- DANCE 245 Dance Production

**Recommended electives:**
- DRAMA 139 Introduction to the Theater
- DRAMA 200 Introduction to Technical Theater
- NUTRI 120 Sports Nutrition: Fueling the Athlete
- PE 107 Stretch and Yoga for Sports
- PE 108 Beginning Hatha Yoga
- PETH 281 Principles of Optimizing Human Performance
- PHYS 110 Elementary Physics

**Total minimum required units**: 24

### Engineering and engineering technology

#### Associate in science degree – Civil engineering

The associate in science degree in civil engineering (ASCE) is offered to prepare students to transfer to a four-year institution in the civil engineering major. The graduates of this program will be able to apply the basic principles of civil engineering to a variety of technical projects related to the design, construction, managing and sustaining of a wide range of developments such as structural systems, buildings, highways, waterways, lifelines, and infrastructures.

The DVC ASCE degree is intended for transfer. Degree requirements at four-year programs differ from institution to institution, so students wishing to transfer to a particular four-year program must consult with a counselor regarding specific major requirements of a particular university program. Additionally, students are advised that other courses in math, physics and chemistry may be required and that engineering courses have science and math prerequisites. It is recommended that the students contact the counseling office for advice regarding appropriate sequencing. Finally, the ASCE is a high-unit major: students are advised to meet with a counselor to determine appropriate general education courses to complete their degree requirements.

**Total minimum theory and performance requirements**: 13

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**Engineering and engineering technology – ENGIN**

**Associate in science degrees**

- Civil design drafting technology
- Civil engineering
- Mechanical design drafting technology - INACTIVE
- Mechanical engineering

**Certificates of achievement**

- Civil design drafting technology
- Civil drafting - CAD
- Mechanical design drafting technology - INACTIVE
- Mechanical drafting - CAD - INACTIVE

**Certificate of accomplishment**

- Computer aided drafting and digital media for engineering and architecture

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To earn an ASME degree students must complete each required course for the major with a “C” grade or higher and complete all the requirements as listed in the catalog. Major requirements may be taken only on a “for grade” basis. Certain courses may satisfy both a major and other DVC graduation requirements; however the units are only counted once.

**major requirements:**

CHEM 120* General College Chemistry I ..............................................5
ENGIN 110 Introduction to Engineering ..............................................3
ENGIN 120 Engineering Drawing .....................................................3
ENGIN 230* Introduction to Circuits and Devices ...........................4
ENGIN 240* Properties of Engineering Materials ..............................4
ENGIN 255* Statistics .....................................................................3
MATH 192* Analytic Geometry and Calculus I .........................4
MATH 193* Analytic Geometry and Calculus II ...............................4
MATH 292* Analytic Geometry and Calculus III ..............................4
MATH 294* Differential Equations .................................................4
PHYS 130* Physics for Engineers and Scientists A: Mechanics and Wave Motion ..................4
PHYS 230* Physics for Engineers and Scientists B: Heat and Electro-magnetism ..................4

**plus at least 3 units from:**

ENGIN 135 Programming for Scientists and Engineers ..............4
ENGIN 136 Computer Programming for Engineers Using MATLAB ..............................................4
ENGIN 140* Plane Surveying .........................................................3
ENGIN 256* Dynamics ..................................................................3
ENGIN 257* Statics and Strength of Materials ..........................3
ENGIN 258* Introduction to Solid Mechanics .........................3

**total minimum required units** 49-50

*These courses have prerequisites. See a counselor for program sequence.

**Associate in science degree - Mechanical engineering**

The associate in science degree in mechanical engineering (ASME) is designed to prepare mechanical engineering students for transfer to a four-year institution. This program enables graduates to apply basic engineering principles and technical skills in support of engineers engaged in the design and development phases of a wide variety of projects involving mechanical systems.

The DVC ASME degree is intended for transfer. Degree requirements at four-year programs differ from institution to institution, so students wishing to transfer to a particular four-year program must consult with a counselor regarding specific major requirements of a particular university program. Additionally, students are advised that other courses in math, physics and chemistry may be required and that engineering courses have science and math prerequisites. It is recommended that the students contact the counseling office for advisement regarding appropriate sequencing. Finally, the ASME is a high-unit major; students are advised to meet with a counselor to determine appropriate general education courses to complete their degree requirements.

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**PHILOSOPHY – PHILO**

**Associate in art degree**

Philosophy

**Certificate of achievement**

Philosophy

The Philosophy Department views critical thinking and reflection about distinctively human issues to be central to human existence and well-being. Students able to think and articulate viewpoints clearly and in an informed fashion not only enhance their own life, but contribute significantly to interpersonal relationships and social existence, including in the realm of political, economic, cultural, and social institutions.

The program prepares students with effective thinking and communication skills, which are useful in many fields including business, sales, writing, teaching, legal profession, political campaigning, news reporting, and other fields in which critical thinking and eloquent articulation of viewpoints is required.

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strike-through = deletion
underline = addition

DIABLO VALLEY COLLEGE CATALOG ADDENDUM 2012-2013
Although this program is not designed as a transfer program, selected courses in the program do meet general education and lower division requirements for the bachelor of arts degree at many California State University and University of California campuses. Consult with department faculty and the counseling department for more information. DVC philosophy students who intend to transfer must consult with a program adviser or counselor to ensure that the requirements for transfer to the baccalaureate institution of their choice are met.

Students who intend to transfer area advised to select either General Education Option 2 (IGETC) or Option 3 (CSU Breadth). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

### Associate in art degree in philosophy

To earn an associate in art degree with a major in philosophy, students must complete five core courses (15 units total) supplemented by a set of restricted electives from which students select one course (3 units). Students must complete each course used to meet a major requirement with a grade of “C” or higher and also maintain an overall GPA of 2.5 or higher in the coursework required for the major. Certain courses may satisfy both a major and a DVC general education requirement; however, the units are only counted once.

**required courses:**

- PHIL 120: Introduction to Philosophy .........................................................3
- PHIL 122: Introduction to Ethics .................................................................3
- PHIL 130*: Critical Thinking: Reasoning ....................................................3
- PHIL 224: History of Western Philosophy: Pre-Socrates to Medieval Period ...............................................................................................3
- PHIL 225: History of Western Philosophy: Descartes to Present ..............3

**plus at least 3 units from:**

- PHIL 140: Introduction to Judeo-Christian Tradition ..................................3
- PHIL 141: Introduction to the Philosophy of Religion .................................3
- PHIL 220: Comparative Religions ...............................................................3

**total minimum required units** 18

*This course has a prerequisite of ENGL 122.*

### Certificate of achievement in philosophy

To earn a certificate of achievement in philosophy, students must complete four core courses (12 units). The certificate program courses also count towards the “major” that is required for the associate in arts degree in philosophy.

**required courses:**

- PHIL 120: Introduction to Philosophy ..........................................................3
- PHIL 122: Introduction to Ethics .....................................................................3
- PHIL 130*: Critical Thinking: Reasoning .....................................................3
- PHIL 224: History of Western Philosophy: Pre-Socrates to Medieval Period ...............................................................................................3

**total minimum required units** 12

*This course has a prerequisite of ENGL 122.*

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## STEAMFITTING – STMFT

### Associate in science degree

**Steamfitting**

### Certificate of achievement

**Steamfitting**

### Associate in science degree in steamfitting

This program is offered in collaboration with Plumbers and Steamfitters Union Local 159 and Plumbers-Steamfitters-Refrigeration (HVACR) Union Local 342. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

This program prepares students to become steamfitters and includes an introduction to the installation, maintenance, and repair of different types of pipe systems; tool use; material applications and storage; and safety. Upon completion of the program, students will be able to install pipe systems that move liquids or gases under high pressure and use many different materials and construction techniques, depending on the type of project. They will be able to follow building plans or blueprints and instructions from supervisors to lay out the job and work efficiently with the materials and tools of the trade.

To earn an associate in science degree with a major in steamfitting, students must complete 20 out of 31 core courses to meet their individual educational and career goals. In addition they must complete General Education Option 1 (DVC General Education). Students must complete each course used to meet a major requirement with a “C” grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major. The associate in science degree with a major in steamfitting is not a transfer program.

DVC steamfitting students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate institutions of their choice are met.

**required courses:**

- STMFT 110: OSHA-CPR ........................................................................1.5-2.5
- STMFT 111: Trade Mathematics .............................................................1.5-2.5
- STMFT 112: Use and Care of Tools .......................................................1.5-2.5
- STMFT 113: Welding Safety/Plate Welding .............................................1.5-2.5
- STMFT 114: Oxygen/Acetylene Cutting ................................................1.5-2.5
- STMFT 115: Pipe Shop I ........................................................................1.5-2.5
- STMFT 116: Pipe Shop II .......................................................................1.5-2.5
- STMFT 117: Related Science in the Piping Trades ...............................1.5-2.5
- STMFT 118: Beginning Drawing and Plan Reading ..............................1.5-2.5

**complete at least 30 units from:**

- STMFT 119: ...
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>STMFT 119</td>
<td>Advanced Drawing in the Piping Trade</td>
<td>1.5-2.5</td>
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<tr>
<td>STMFT 120</td>
<td>Instrumentation 1</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 121</td>
<td>Instrumentation 2</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 122</td>
<td>Steam Systems</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 123</td>
<td>Electricity for Steamfitting</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 124</td>
<td>Industrial Rigging</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 125</td>
<td>Beginning AutoCAD</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 126</td>
<td>Advanced AutoCAD</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 127</td>
<td>Pumps</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 128</td>
<td>Tube Bending</td>
<td>1.5-2.5</td>
</tr>
<tr>
<td>STMFT 131</td>
<td>Pipe Welding 1</td>
<td>1.5-2.5</td>
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<tr>
<td>STMFT 132</td>
<td>Welding 5</td>
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<td>STMFT 137</td>
<td>Welding 10</td>
<td>1.5-2.5</td>
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<td>STMFT 138</td>
<td>Orbital Welding</td>
<td>1.5-2.5</td>
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<tr>
<td>STMFT 140</td>
<td>Construction Management in Steamfitting</td>
<td>1.5-2.5</td>
</tr>
</tbody>
</table>

**Certificate of achievement in steamfitting**

This program is offered in collaboration with Plumbers and Steamfitters Union Local 159 and Plumbers-Steamfitters-Refrigeration (HVACR) Union Local 342. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners. This program prepares students to become steamfitters and includes an introduction to the installation, maintenance, and repair of different types of pipe systems; tool use; material applications and storage; and safety. Upon completion of the program, students will be able to install pipe systems that move liquids or gases under high pressure and use many different materials and construction techniques, depending on the type of project. They will be able to follow building plans or blueprints and instructions from supervisors to lay out the job and work efficiently with the materials and tools of the trade.

To earn a certificate of achievement, students must complete 14 out of 19 core courses. Students must complete each course used to meet a major requirement with a “C” grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate. The courses required for the certificate of achievement also meet some of the requirements of the major for the associate of science degree.

**STMFT 128 Tube Bending**  
**STMFT 131 Pipe Welding 1**  
**STMFT 132 Welding 5**  
**STMFT 133 Welding 6**  
**STMFT 134 Welding 7**  
**STMFT 135 Welding 8**  
**STMFT 136 Welding 9**  
**STMFT 137 Welding 10**  
**STMFT 138 Orbital Welding**  
**STMFT 140 Construction Management in Steamfitting**

**Total minimum required units**  

30-50

**Course work required for the certificate.**

1.5-2.5

**Total minimum required units**  

30-50