

DAC Technology Certificate Program

Program Description – 300 Clock Hours of Instruction

Program Completion Time – 8 Months

Upon Completion – VDCI Professional Technology Certificate Awarded

DIGITAL ARTS COURSES (DAC)

There is a strong demand for competent designers knowledgeable in the application and integration of the Adobe Creative Suite, including Photoshop, Illustrator, and InDesign. The DAC courses at the Virtual Design & Construction Institute provide students the opportunity to obtain a certificate in these areas. The classes are designed to provide students an opportunity to learn relevant skills and technical knowledge used in a variety of marketing, presentation, and design-oriented, industry-focused disciplines. The curriculum is based on the current professional skill sets required by business. The lessons learned and exercises practiced are based on current, industry Adobe Creative Suite required skills.

DAC Professional Technology Certificate Completion Requirements

Students must complete 300 Clock Hours of Required and Elective Courses

Students must complete all courses with a 70% (C-) or better to complete the program.

Students must satisfy the 80% minimum attendance policy to complete the program.

Course Clock Hours

The VDCI program awards clock hour credits for all online and onsite courses completed. All clock hours are the equivalent of the required onsite hours. (i.e., a 20-unit online clock hour course is the equivalent of a 20-unit onsite clock hour course). VDCI operates on clock hours only. There is not any conversion to credit hours used at the institute.

In VDCI defined Lecture courses, the students are expected to watch (and again, re-watch) video based lectures to prepare themselves for the online assessments. In VDCI defined Project-Based courses, the students are expected to watch and re-watch video-based lectures, but the lectures are designed to work through a real-world project. This real-world project reinforces the students' learning of the tools, workflows, and industry insights, but the students are not expected to perform work outside of the video-lectures. 100% of the student projects are performed in the video lectures.

Course Number	Course Name	Number of Clock Hours
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Required Courses

Students must complete 240 Clock Hours of Required Courses. Does not include prerequisites.

DAC 101	Introduction to Adobe Photoshop	30
DAC 201	Intermediate Adobe Photoshop 30	30
DAC 121	Introduction to Adobe Illustrator	30
DAC 221	Intermediate Adobe Illustrator	30
DAC 141	Introduction to Adobe InDesign	30
DAC 241	Intermediate Adobe InDesign	30
PFC 501	Certificate Completion Practical	60

Elective Courses

Students must complete at least 60 Hours of Elective Courses

BIM101	Introduction to Revit	30
BIM 201	Intermediate Revit	30
BIM 301	BIM Construction Documents 1	30
BIM 302	BIM Construction Documents 2	30
BIM 303	BIM Detailing	20
BIM 311	BIM Project Management	20
BIM 321	Revit MEP 1	30
BIM 322	Revit MEP 2	20
BIM 341	Revit Structure 1	20
BIM 342	Revit Structure 2	30

BIM 361	Introduction to Navisworks	30		
CAD 101	Introduction to AutoCAD	30	Strongly Recommended	+
CAD 201	Intermediate AutoCAD	30		
CAD 301	AutoCAD Construction Documents 1	30		
CAD 302	AutoCAD Construction Documents 2	30		
CAD 304	CAD Detailing	20		
CAD 311	CAD Project Management	20		
C3D 301	Introduction to Civil 3D	30		
C3D 302	Intermediate Civil 3D	30		
C3D 303	C3D 303 Civil Construction Documents 30	30		
DAC 211	Introduction to SketchUp	20	Strongly Recommended	+
DAC 212	Intermediate SketchUp 20	20	Strongly Recommended	+
PFC 101	Blueprint Reading for Residential Construction	10		
PFC 102	Blueprint Reading for Commercial Construction	20		
PFC 121	Introduction to Construction Estimating	20		
CFC 101	Overview, Site Utilities, Earthwork & Foundations	10		
CFC 102	The Building Structure	10		
CFC 103	The Building Envelope	10		
CFC 104	Interiors and Finish Site Work	10		
CFC 105	Mechanical, Electrical, Plumbing & AV-Tel-Data	20		
CFC 106	Fire Protection, Startup/Testing & Closeout	10		

Career Options

The following list is a sample of disciplines that employ people with a strong, working knowledge of DAC skill sets. Some areas require that their employees have professional training and/or experience in addition to the technical training learned at the Virtual Design & Construction Institute:

Job Title	SOC-Code	
Multimedia Artists and Animators	27-1014	
Photographers	27-4021	
Craft Artists		
Fine Artists, Including Painters, Sculptors, and Illustrators	27-1013	
Artists and Related Workers, All Other	27-1012	
Industrial Engineers	17-2112	Bright/Green
Commercial and Industrial Designers	27-1021	Green
Interior Designers	27-1025	
Graphic Designers	27-1024	
Set and Exhibit Designers	27-1027	
Marketing Managers	11-2021	Bright/Green
Real Estate Brokers	41-9021	Bright
Advertising and Promotions Managers	11-2011	
Market Research Analysts & Marketing Specialists	13-1161	Bright
Advertising Sales Agents	41-3011	
Architects, Except Landscape and Naval	17-1011	Bright/Green
Landscape Architects	17-1012	Green
Construction Managers	11-9021	Bright/Green
Architectural and Engineering Managers	11-9041	Green

Art Directors	27-1011	
Urban and Regional Planners	19-3051	Bright/Green
Architecture Teachers, Postsecondary	25-1031	Bright
City and Regional Planning Aides	19-4061	Bright
Transportation Planners	19-3099	Green
Self-Enrichment Education Teachers	25-3021	Bright
Green Marketers	11-2011	Green
Sustainability Specialists	13-1199	Bright/Green
Environmental Engineering Technicians	17-3025	Bright/Green
Industrial Engineering Technicians	17-3026	Green
Commercial and Industrial Designers	27-1021	Green

The DAC Professional Technology Certificate provides students with the skills and technical knowledge requested by employers using Adobe Creative Suite. The certificate program focuses on the development of fundamental design skills and problem-solving strategies. Please see the Course Descriptions for further information on class content.

Type of Credential Awarded Upon Graduation

At the completion of a VDCI DAC Technology Certificate Program, students will be awarded a Certificate of Completion for the Program.

Curriculum Design

The VDCI DAC Professional Technology Certificate curriculum is built around how designer, artist, advertiser and architect professionals use Adobe Creative Suite in their businesses. There are six focus areas of study which can be included in the required and elective courses for this technology certificate:

- (1) BIM (Building Information Modeling) Classes – using Revit and Navisworks
- (2) CAD (Computer-Aided Design) Classes – using AutoCAD
- (3) C3D (Civil 3D) Classes – using Civil 3D
- (4) CFC – Construction Fundamentals Classes

(5) DAC Digital Arts (Visualization) Classes – using Photoshop, Illustrator & InDesign

(6) PFC (Professional Fundamentals) Classes – Blueprint Reading, Construction Estimating and the Technology Certification Completion Practical (required to earn the technology certificate)

BIM – Building Information Modeling Classes – Revit is the construction-industry standard software program for BIM (Building Information Modeling). In Revit, students create a 3D model of a project and extract the construction drawings and details directly from the BIM model. The lessons learned in the successive Revit courses build upon previous courses. By the completion of the Revit series of classes, a complete set of construction documents will be built for a moderately complicated commercial project. Today, Government, Military, Hospital, Education and other similarly scaled projects require that their work be completed in Revit (BIM). It is becoming increasingly common for construction managers to run 3D interference checks on the Revit (BIM) model using Navisworks. As an example, Navisworks analyzes where the mechanical, plumbing, structural, and other disciplines' design work are occupying the same location in the building. By identifying these interferences during design, significant dollars are saved during construction, and change orders are significantly reduced. Today, most Government, Military, Hospital, Education and other similarly scaled projects require that their work be analyzed in Navisworks.

CAD – Computer-Aided Design Classes – Students begin their study of Computer-Aided Design (CAD), using AutoCAD. AutoCAD is the construction industry standard for 2D project documentation. AutoCAD is used at all levels and by all disciplines in the construction industry including facilities people, sound engineers, trades professionals and solar power people, to name a few. In the VDCI introductory, intermediate and advanced construction documentation classes, students will learn AutoCAD, starting at the very beginning. As their skillsets evolve, they will create construction documents for two residential projects. By the completion of our AutoCAD series of classes, a complete set of construction documents, including details, will be built for a moderately complicated residential project – a project worthy of presentation during a job interview.

C3D – Civil 3D Courses – The Civil 3D courses provide the student with an excellent working knowledge of the capabilities of this program. The Civil 3D classes focus on creating and editing infrastructure systems and on-site development. Students are exposed to public 3D/virtual databases and learn about 3D data management and project file sharing through web-based technologies such as project FTP, MILCON, and city/state/national databases. Coursework integrates with CALTRANS and other public agency requirements and databases.

CFC – Construction Fundamentals Courses – These courses are designed to teach real-world, practical information which is regularly learned as on-the-job-training. These courses were

designed and prepared by a construction project manager with extensive experience on multi-story commercial buildings. By taking these courses, students will learn about the systems and materials which are installed as well as becoming very familiar with the terminology used by construction industry professionals.

DAC – Digital Arts (Visualization) Courses – Most clients want both technical documentation on their projects and renderings and animations, to better assist in seeing the project. The Adobe suite of software is the market dominant software for graphic design and creative expression. Photoshop is a powerful raster-based editing tool, used primarily for digital painting and photo editing. Illustrator is a vector-based design tool, used for scalable graphic design. InDesign is a layout focused tool that many firms use to develop their print and digital documentation. In the AEC industry professionals often rely on visualization software that is outside the traditional AEC software lineup. Adobe has historically focused upon the creation of multimedia and creativity software products, with a more recent focus towards digital marketing software. VDCI has included Adobe Photoshop, Illustrator and InDesign for digital marketing as it is a common workflow to finish AEC projects.

PFC – Professional Fundamental Courses– People working in the construction industry must know how to understand and work with construction documents. "Blueprint" is the historic name for construction documents. Architects, engineers, and designers create the construction documents (blueprints). Proposals and bids are developed off blueprints. Contractors build their projects based on the information provided on the blueprints. The VDCI Blueprint Reading classes include lectures, hands-on demonstrations, and lab exercises to familiarize students with blueprint reading and understanding the connectedness between different drawing sheets within a set of blueprints. In the PFC 501 Technology Certificate Completion practical, students demonstrate an understanding of the inter-relationship between the software programs learned in their Technology Certificate courses. They work 1:1 with their instructor, and design their own project deliverable, develop an implementation plan, evaluate the best methods to successfully complete their Certificate Completion Practical and ultimately create a project which uses the software programs learned throughout their Technology Certificate. By the completion of this course, students will apply the skill sets learned from all their previous courses. The Certificate Completion Practical will be comprehensive and will be of a quality so that it can be presented to a potential employer as an example of a project which the student has designed and executed themselves.

Licensing Requirements

There are not any licensing, registration or certification examination requirements which are mandatory for the VDCI Certificate Programs. The Autodesk and Adobe Certification Exams are optional, are not required by industry and do not lead to professional licensure. Passing the Autodesk Certified User or the Autodesk Certified Professional, and/or the Adobe Certified Associate or the Adobe Certified Expert Exams demonstrate to the participant (student), and to

their employer, that the participant (student) has achieved a satisfactory command of the domain objectives which align with the Certification Exams.

VDCI courses which focus on Autodesk and/or Adobe software skills incorporate Autodesk and/or Adobe Certification Objectives into the course curriculum. The format of VDCI quizzes aligns with the format of questions asked in the Certification Exams.

VDCI directs students who choose to take an Autodesk and/or Adobe Certification Exam to areas of the Autodesk and/or Adobe website which specifically prepares students to take an Autodesk Certification Exam.