

Since 1948

2011-12 Curriculum  
Certification Package



**INSTRUCTIONS**

<http://www.adda.org>

# **Design Drafting Program Curriculum Certification**

## **PACKAGE CONTENT and PROGRAM DESCRIPTION**

**FOR**

## **SECONDARY & POST SECONDARY SCHOOLS**



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# Section I

## GENERAL

### A. Purpose

Curriculum Certification Explained

### B. Process

Requesting Curriculum Certification

### C. Eligibility

Requirement for Curriculum Certification

SECTION - I. GENERAL**A. PURPOSE OF CURRICULUM CERTIFICATION EXPLAINED**

The purpose of ADDA Curriculum Certification is to give recognition (Certification) to schools whose curriculum in design, drafting, graphics, technical illustration, graphic illustration, digital imaging, visual communications and digital media creation, which meets the standards established and approved by the ADDA, (American Design Drafting Association International and the American Digital Design Association. ADDA is the only professional industry organization in the world which represents the standards, theory, principles, implementation, forecast and specialized in training for the graphics professions.

The program also provides a means of encouraging schools to develop and upgrade design, drafting and graphic curriculum in order to better prepare students to meet the rapidly changing technical career requirements.

The ADDA's Curriculum Certification process is open to individual schools. Curriculum Certification was developed as a minimum industry baseline, which was established across the various institutions and disciplines, covering information that industry requires personnel to comprehend to enter the discipline specific level of the profession.

The ADDA has customized and advanced level curriculum certification and program accreditation available. The ADDA will work with individual schools boards, state departments of education personnel and private school systems to obtain advanced levels of certification or standardized curriculum to meet the needs of State and Federal Requirements.

**B. REQUEST FOR CURRICULUM CERTIFICATION**

A request for certification is implemented by a school official requesting, by application, the curriculum be evaluated by the ADDA Curriculum Certification Committee.

This evaluation is accomplished by examination of the school's curriculum; interviewing faculty and graduates; by extensive interviews of references, advisory committee members, and local industries; by examination of data from catalogs, texts, courses submitted and other school publications; submission of classroom and lab layout drawing, institutional photographs and by physical plant inspection, if required.

**SECTION - I. GENERAL** continued**C. ELIGIBILITY FOR CERTIFICATION**

The reliability of the following criteria depends upon establishing and adhering to an equitable procedure of evaluation.

**1. General Requirements**

A school which offers an organized curriculum of two or more years directed toward the preparation for employment may make application for Certification. Certification may be requested when the curriculum has been in operation a minimum of two years.

A school which has developed a new program and has been in operation less than two years may apply for Probationary Certification for the required two year waiting period. Probationary Certification is monitored until data and criteria can be analyzed to meet the necessary time limit requirements.

**2. Types of Schools Eligible**

The types of schools eligible for Certification are those offering courses leading to a diploma, certificate, or degree in the disciplined profession area. These are:

- (a) Public and Private High Schools
- (b) Public and Private Vocational High Schools
- (c) Magnetic High Schools
- (d) Vocational and training schools which supplement academic programs.

**3. Ethical and Financial Status**

The school must have a reputation for being fair and factual in all its dealings with students and the public, and maintain a high standard of ethics in all operations. The school shall give evidence of having adequate financial support for normal operation.

**SECTION - I. GENERAL** continued

## 4. Physical Plant

*Note: The ADDA requires that there be one student space (minimum) that meets the requirements of the Americans with Disabilities Act or have available a space that can be quickly converted to allow accessibility. Keeping in-mind the classroom must be arranged for physically challenged individuals to access printers, plotters, and other classroom equipment.*

**Floor Space:** Space should be adequate space to accommodate the processes described in the curriculum certification package submitted. ADDA requires a drawing of the classroom and lab indicating the location of all furniture and equipment be submitted with this certification package..

Classroom: approximately 22 sq. ft. per student;

Manual board drawing room: approximately 75 sq. ft. per student

To accommodate all students, avoid the use of labs and drawing rooms by more than one class at the same time.

*ADDA requires upon submission of materials, drawings and photographs indicating the physical size, shape, and dimensions of the lab and classroom areas.*

**Equipment:** Equipment in drawing labs should be equivalent to the minimum acceptable equipment used in industry, and should be supplied in sufficient quantity to permit usage by all students without "doubling up." All equipment should be in good condition and provisions should be made for adequate storage. Laboratory and shop equipment should be adequate for student use and for demonstration.

*ADDA requires upon submission of materials, photographs indicating the equipment &, placement within the classroom and lab areas.*

**Lighting:** All classrooms and laboratories should be lit with a minimum of 100-foot candles. This may be accomplished by the use of overhead lighting or task lighting used at individual workstations.

**Housekeeping:** Work areas should be neat and clean. The students should be instructed and supervised in the proper care and usage of equipment, work area, computers, and premises on a daily basis.

**SECTION - I. GENERAL** continued

## 5. Types of Curriculum Certified

The curriculum may be certified for different levels and offered in any one of the various design/drafting fields, supported by specified related or background studies. The drafting courses shall be technological in nature, with emphasis placed on the graphical rather than analytical solutions of problems. (See Section II-B for ADDA Levels of Curriculum.)

This package covers specific information concerning the General or Basic Certification.

Programs may be certified in several discipline fields but the core (discipline specific) criteria must be fully addressed within each discipline taught.

Each discipline field certified requires an additional fee, and the submission of additional certification package information related to the discipline being certified.

## 6. Length of Curriculum

The curriculum shall be at least two academic years of full time instruction or equivalent in part-time or extension work. Approximated times are accepted on assignments completed outside the classroom or lab setting.

Each Level and Discipline certified requires specific hours and instructional criteria. However under multiple certifications some course work may be applicable in some or all levels. (See Section II-B for ADDA Levels of Curriculum and for credit/clock hour requirements and conversions.)

## 7. Faculty Qualification

A desire to teach is an essential characteristic, but both the educational level of the faculty and their industrial or related experiences are additionally important. They should be experienced and competent, and should have proven ability in the subjects they teach.

Participation of faculty members in professional societies related to their field of instruction is a desirable practice. The ratio of instructors to students, as well as faculty teaching loads, should be such that a quality instruction is enhanced.



## SECTION - I. GENERAL continued

## 8. Industry Advisory Committee

ADDA requires that schools have or establish an Advisory Committee composed of three or more representatives from local industries for each discipline certified. The committee shall assist the school in the promulgation of their design or drafting curriculum, and act as a continuing liaison between the educational institution and industry

The Advisory Committee members may be of multi-discipline but, must support the discipline certified. Schools which obtain curriculum certification in two or more disciplines must have no less than three advisors per program serving on the advisory committee.

An example would be an advisor experienced in Architectural & Civil. This advisor would serve in a dual capacity.

<i>Example #1:</i>	<i>Architectural Program Advisors (any level)</i>	<i>3 persons (John, Sue, Linda)</i>
	<i>Mechanical Program Advisors (any level)</i>	<i>3 persons (Joe, Bob, Kim)</i>
	<i>Civil Program Advisors (any level)</i>	<i><u>3 persons</u> (Sam, Tom, Dan)</i>
	<i>Members on Program Advisory Committee</i>	<i>9 persons</i>

Another example would be "Linda" and "John" advisors experienced in both Architectural & Civil. These advisors would serve in a dual capacity.

<i>Example #1:</i>	<i>Architectural Program Advisors (any level)</i>	<i>3 persons (John, Sue, Linda)</i>
	<i>Mechanical Program Advisors (any level)</i>	<i>3 persons (Joe, Bob, Kim)</i>
	<i>Civil Program Advisors (any level)</i>	<i><u>3 persons</u> (John, Tom, Linda)</i>
	<i>Members on Program Advisory Committee</i>	<i>7 persons</i>

It shall be the responsibility of the school to report to ADDA the names of all members of the advisory committee, with their addresses, business affixations, titles, and contact information.

The committee should meet periodically (ADDA recommends twice yearly) at the school for observation, discussion, and advice. A written report from the Advisory Committee (meeting minutes) is to be submitted with the school's Annual Certification Renewal Package.

The renewal information is found in "Section III – Item G", which contains the general condition of renewing the design/drafting curriculum, school facilities, faculty performance, and recommendations.

These reports are required yearly, and have paramount importance in maintaining Curriculum Certification. . *Any school that has been previously certified with the American Design Drafting Curriculum Certification Program and did not renew within the prescribed timeframe, will incur a reinstatement and administrative fee for a period of three (3) years from the date of cancellation.*

END OF SECTION I



## Section II

# CURRICULUM EVALUATION

- A. ....Basis for Evaluation
  
- B. ADDA Classifications of Curriculum
  
- C. ....Subjects
  
- D. .... Admission Requirements



## SECTION - II. CURRICULUM EVALUATION

### A. BASIS FOR EVALUATION

It is intended that the basis for evaluating curriculum be sufficiently broad and liberal in scope to permit evaluators to work within reasonable limits in determining value of curriculum and eligibility for Certification.

Since there is considerable diversity in design/drafting courses and variations of the many types of schools that offer them, it is necessary to set certain minimum requirements.

Some schools may offer more academic and advanced training programs. Some schools may teach at a higher level and offer additional courses that would increase the ability of the program study area.

ADDA will classify these in multi-levels within the Certification Classification criteria. *i.e., Classification I, Classification IA, Classification II, Classification IIA, Classification III, Classification IIIA, etc.*

#### 1. Statement of Purpose

For each curriculum, the school shall prepare a definitive statement mentioning the types and levels of employment open to graduates of that curriculum. The extent to which the curriculum enables the student to handle the type and level of employment claimed shall serve as one basis for Certification.

#### 2. Attainment of Employment

One indication of the quality and content of any curriculum may be found by examining the following factors:

- (a) The percentage of graduates placed in jobs for which they have received training;
- (b) The job level attained by graduates after a five-year period of employment.
- (c) The length of continuous employment;
- (d) Passing of the ADDA Drafter Certification Exam.

Each application for Certification shall include an employment report indicating the type and level of employment obtained by graduates and the names and addresses of firms employing the graduates

***The examining committee is instructed to recognize that complete records of graduates five years after graduation may be very difficult to obtain; however, the school should make this record as complete as possible. A record of continuing education will be accepted in lieu of employment record.***

SECTION - II. CURRICULUM EVALUATION continued

## 3. Curriculum Analysis – Classifications Explained

ADDA Curriculum Certification is awarded in Two Divisions for 4 Major Classifications. Schools which provide and work under areas which offer academic areas of study to compliment a diploma or degree will be certified under the Scholastic Division, where schools which offer non-academic areas of study within the program criteria or as a supplement to the program will be certified under the Technical Division.

Divisions - Scholastic & Technical

The difference between the Scholastic and Technical Divisions relate only to programs which offer academic courses in conjunction with the Technical Training.

Classifications    **Apprentice Drafter**  
                               **Drafter**  
                               **Design Drafter**  
                               **Designer**

The difference between the Classifications relates only to the quantity, depth and level of Technical Training provided within the course structure.

Contact Hour Conversion Formulas

It is ADDA's intent provide a fair and equal opportunity to all institutions to meet the hourly instruction in all subject matters related to training and education in the design drafting trade. In order to accomplish this fairness ADDA works to assure future employers an understandable baseline of hands-on instruction in each subject area.

ADDA bases Curriculum Certification on minimum contact hours related to physical instruction, required lab time, practical exposure time and research required to complete each specific study area using the following formulas to convert.

1 Semester Hour	=	75 Contact Hours
1 Quarter Hour	=	50 Contact Hours
1 College Lab Hour	=	15 Contact Hours
1 Hour High School Class	=	150 Contact Hours for entire year
1 Block High School Class	=	150 Contact Hours for entire year

The application of the above formulas cannot alone serve as a basis for conclusion, but it does produce a figure which special consideration should be given with respect to quantity of content and additional academic level of courses when included in the curriculum.

SECTION - II. CURRICULUM EVALUATION continued

## 3. Curriculum Analysis – Classifications Explained continued

a. Apprentice Drafter

**Secondary Schools - Magnet High Schools - Post Secondary Schools  
Vocational Technical School - Technical Schools - Community Colleges**

The evaluation for this program will be based on the training institute's ability to insure the student is provided with instruction that covers the minimum subject content listed in the "ADDA Apprentice Drafter Objectives" for the related discipline and related contact hours of training."

Additional cumulative contact hours may be obtained through projects, research and additional studies required and take place outside the classroom environment.

Also required, are the related academics and supporting programs listed under the appropriate certification Classification Level listed in Section II – B – 1 Apprentice

b. Drafter

**Some High Schools - Some Magnet High Schools - Vocational Technical School  
Technical Schools – Post Secondary Schools – Community College**

The evaluation for this program will be based on the training institute's ability to insure the student is provided with instruction that covers the minimum subject content listed in the "ADDA Certified Drafter Objectives" for the related discipline and related contact hours of training."

Additional cumulative contact hours may be obtained through projects, research and additional studies required and take place outside the classroom environment.

Also required, are the related academics and supporting programs listed under the appropriate certification Division and Classification Level listed in Section II – B – 1 Drafter.

Also under the Drafter Classification the Apprentice Classification may be instructed under the same discipline.

SECTION - II. CURRICULUM EVALUATION continued

## 3. Curriculum Analysis – Classifications Explained continued

c. Design Drafter**Vocational Technical Schools - Technical Schools – Private Post Secondary Schools  
Community Colleges**

The evaluation for this program will be based on the training institute's ability to insure the student is provided with instruction that covers the minimum subject content listed in the "ADDA Certified Design Drafter Objectives for the related discipline and related contact hours of training."

Additional cumulative contact hours may be obtained through projects, research and additional studies required and take place outside the classroom environment.

Also required, are the related academics and supporting programs listed under the appropriate certification Division and Classification Level listed in Section II – B – 1 Design Drafter.

Also under the Design Drafter Classification the Apprentice and Drafter Classification may be instructed under the same discipline.

d. Designer**Universities – 4 year Colleges - Private Post Secondary Colleges  
Some Community Colleges offering advanced programs.**

The evaluation for the academic level of approved curriculum could include 2 and 3 year curriculum. Each evaluation is based on the criteria provided and the surrounding circumstances of the individual school.

Academic Level Curriculum Certification is open to any accredited public or private post secondary program.

Academic Institutions are not required to certify at the academic level. Any level of certification listed for post secondary schools is available to academic based schools. However, schools should highly consider certifying at their appropriate level based on the ability to market their ability to deliver the highest training possible to the student.

Additional cumulative contact hours may be obtained through projects, research and additional studies required and take place outside the classroom environment.

Also required, are the related academics and supporting programs listed under the appropriate certification Division and Classification Level listed in Section II – B – 1 Designer.

Also under the Design Drafter Classification the Apprentice, Drafter, and Design Drafter Classification may be instructed under the same discipline.

SECTION - II. CURRICULUM EVALUATION continued

## B. ADDA CLASSIFICATIONS OF CURRICULUM

It is recognized that instruction and training in the field of drafting and/or design can be given in various degrees and levels of accomplishment. The following outline indicates the specifications applying to the levels of curriculum, ranging from secondary schooling to a university degree. It is not intended herein that the terms limit or establish industry classifications or identifications having similar designations.

Each Discipline areas, such as Mechanical Engineering, Architectural, Piping or AEC Engineering are considered different courses and required individual course certification.

ADDA does offer multiple course discounts on the certification process and specific courses can be jointly used, requiring minimal material submission to complete multiple area certifications.

**APPRENTICE DRAFTER CLASSIFICATION**

Vocational Technical College

Vocational Training Schools or Institutions – High Schools

Hour Legend CH (HSC)	= Contact Hours -High School Credits <i>Note - 1 High School Credit (1 hour Class) = 150 contact Hours</i> <i>1 High School Credit = 2 College Semester Hours</i>
900 - (06)	<b>TECHNICAL DRAWING for RELATED DISCIPLINE AREAS</b> <u><i>Mechanical</i></u> (Basic Core Mechanical Drafting) <u><i>Architectural</i></u> (Basic Core Architectural Drafting) <i>Note: External Hours such as homework, outside projects, research and other class related time can be used in conjunction with Contact Hours. Outside Time to be calculated as follows: 10 hours of Outside time equals 5 contact hours.</i>
450 - (03) <i>Required</i>	<b>PHYSICAL SCIENCES</b> <i>Physics, Chemistry, Earth Sciences etc.</i> <i>Required at Academic Level</i> <i>H.S. Courses Accepted or Supplemental Courses Accepted at Technical Classification</i>
450 - (03) <i>Required</i>	<b>TECHNICAL MATH</b> <i>Algebra I, Algebra II, Trigonometry*, Geometry</i> <i>Required at Academic Level</i> <i>H.S. Courses Accepted or Supplemental Courses Accepted at Technical Classification</i>
600 - (04) <i>Required</i>	<b>COMMUNICATIONS -</b> <i>English Composition*, Report Writing, Speech</i> <i>Required at Academic Level</i> <i>H.S. Courses Accepted or Supplemental Courses Accepted at Technical Classification</i>

**APPRENTICE DRAFTER CLASSIFICATION** continued

600 -04- (06)

*Note: These components can be inclusive within the design training.*

**Total 3000  
Contact Hours**

**RELATED SPECIALTY COURSES**

*Keyboarding & Business Machines, Desktop Software, Computer Operations, Computer Aided Drafting, Hydraulics, Economics, Accounting, Programming, etc*

*Required at Academic Level*

*H.S. Courses Accepted or Supplemental Courses Accepted at Technical Classification Under Certain Conditions based on the schools operational practices, certification will be considered for 50 or more semester hours.*

***Equates to 30 Semester Hours or 40 Quarter Hours***

End of Apprentice Drafter Level Classification Requirements.

**SECTION - II. CURRICULUM EVALUATION** continued**B. ADDA CLASSIFICATIONS OF CURRICULUM** continued**DRAFTER LEVEL CLASSIFICATION**

**DRAFTER – Community College or Associate Degree  
Vocational Technical College or School, Some Vocational Schools or Institutions**

The American Design Drafting Association has available additional discipline fields that can receive curriculum certification through this organization. The disciplines listed are not limited to those indicated:

Contact the Corporate Offices for additional information and details. Please refer to Section I-C for additional information and eligibility

ADDA does recommend students have a High School Diploma or GED to meet the requirement of Technical Level Certification. Math and Communication Abilities are crucial within the design drafting process. ADDA encourages extended or additional training where these abilities do not meet the minimum abilities necessary for proper workplace performance.

Each Discipline areas, such as Mechanical, Architectural, Piping or Civil are considered different courses and required individual course certification.

ADDA does offer multiple course discounts on the certification process and specific courses can be jointly used, requiring minimal material submission to complete multiple area certifications.

Apprentice Level Program can be instructed under this classification for the specified discipline.

The Program must meet the minimum requirements defined below.

SECTION - II. CURRICULUM EVALUATION *continued*B. ADDA CLASSIFICATIONS OF CURRICULUM *continued***DRAFTER LEVEL CLASSIFICATION**

DRAFTER – Community College or Associate Degree  
Vocational Technical College or School, Some Vocational Schools or Institutions

Hour Legend	
CH -SH- (QH)	= Contact Hours -Semester Hours- (Quarter Hours)
1500 -20- (26) <i>Note: 800 hours should cover the basic core drafting requirements</i>	<b>TECHNICAL DRAWING for RELATED DISCIPLINE AREAS</b> <u>Mechanical</u> (Machining Design, Jig and Fixture, Illustration, etc) <u>Architectural</u> (Residential, Light Commercial, etc. <u>AEC Design</u> (Commercial Construction, Structural, etc <u>Civil / Survey</u> (Surveying, Topographical, Boundary, GIS, etc. <i>Piping, Electrical, HVAC, Aerodynamics, and others Available</i>
300 -04- (06)	<b>DESCRIPTIVE GEOMETRY</b> <i>Descriptive Geometry can be included within technical drawing course but additional hours must be added.</i>
450 -06- (07)	<b>PHYSICAL SCIENCES</b> <i>Physics, Chemistry, Note, Earth Sciences and Biological Science can be accepted based on discipline of course.</i>
450 -06- (08)	<b>TECHNICAL MATH</b> <i>Algebra*, Trigonometry*, Analytic Geometry, Algebraic Operations, Solutions of Equations, Coordinate Geometry, Applications,</i>
300 -04- (06)	<b>SUPPORT PROCESSES</b> <i>Machine Shop, Welding, Foundry, Concrete Production, Construction Based Courses, Surveying, Carpentry, Properties of Materials, Electricity, Numerical Controls, etc.</i>
300 -04- (06))	<b>COMMUNICATIONS</b> <i>English Composition*, Report Writing, Speech</i> <i>Note: ADDA will accept 4 years of high school level English as credit toward a Technical Level Certification.</i>
300 -04- (06) <i>Note: These components can be inclusive within the design training.</i>	<b>RELATED SPECIALTY COURSES</b> <i>Keyboarding &amp; Business Machines, Desktop Software, Computer Operations, Computer Aided Drafting, Hydraulics, Economics, Accounting, Programming, etc</i>

SECTION - II. CURRICULUM EVALUATION continuedB. ADDA CLASSIFICATIONS OF CURRICULUM continuedDRAFTER LEVEL CLASSIFICATION continued

## 900 -12- (16) INSTITUTIONAL ELECTIVES

*Subject matter to satisfy special institutional requirement, e.g.,  
History, Government, Physical Education, etc.*

Total 4500  
Contact Hours

*Under Certain Conditions based on the schools operational practices, certification will be  
considered for 50 or more semester hours.*

*Equates to 60 Semester Hours or 80 Quarter Hours*

End of Drafter Level Classification Requirements.

SECTION - II. CURRICULUM EVALUATION continuedB. ADDA CLASSIFICATIONS OF CURRICULUM continuedDESIGN DRAFTER CLASSIFICATION

Two Year College Programs or Some Associate Degree Programs  
Technical College and Institutional Programs and  
Specific post secondary Vocational Programs

The American Design Drafting Association has available additional discipline fields that can receive curriculum certification through this organization. The disciplines listed are not limited to those indicated:

Contact the Corporate Offices for additional information and details. Please refer to Section I-C for additional information and eligibility

Each Discipline areas, such as Mechanical, Architectural, Piping or Civil are considered different courses and required individual course certification.

ADDA does offer multiple course discounts on the certification process and specific courses can be jointly used, requiring minimal material submission to complete multiple area certifications.

The two-year + Degree Program must meet the minimum requirements defined below.



**SECTION - II. CURRICULUM EVALUATION** continued

**B. ADDA CLASSIFICATIONS OF CURRICULUM** continued

**DESIGN DRAFTER CLASSIFICATION**

Two Year College Programs or Some Associate Degree Programs  
Technical College and Institutional Programs and  
Specific post secondary Vocational Programs

Contact Hours

- Semester Hours-  
(Quarter Hours)

Subjects

Hour Legend CH -SH- (QH)	= Contact Hours -Semester Hours- (Quarter Hours)	
1200 -12- (16) <i>Note: 600 hours should cover the basic core drafting requirements</i>		<b>TECHNICAL DRAWING for RELATED DISCIPLINE AREAS</b> <u>Mechanical</u> (Machining Design, Jig and Fixture ,Illustration, etc <u>Architectural</u> (Residential, Light Commercial, etc. <u>AEC Design</u> (Commercial Construction, Structural, etc <u>Civil / Survey</u> (Surveying, Topographical, Boundary, GIS, etc. <i>Piping, Electrical, HVAC, Aerodynamics, and others Available</i>
450 -06- (08)		<b>DESCRIPTIVE GEOMETRY</b> <i>Descriptive Geometry can be included within technical drawing course but additional hours must be added.</i>
450 -06- (08)		<b>PHYSICAL SCIENCES</b> <i>Physics, Chemistry, Note, Earth Sciences and Biological Science can be accepted based on discipline of course.</i>
450 -06- (08)		<b>COLLEGE LEVEL MATH</b> <i>Algebra*, Trigonometry*, Analytic Geometry, Algebraic Operations, Solutions of Equations, Coordinate Geometry, Applications,</i>
450 -06- (08)		<b>STATICS, STRENGTH OF MATERIALS, PROPERTIES OF MATERIALS</b>
300 -04- (06)		<b>MANUFACTURING PROCESSES</b> <i>Machine Shop, Welding, Foundry, Concrete Production, ,</i>
300 -04- (06))		<b>COMMUNICATIONS</b> <i>English Composition*, Report Writing, Speech</i>
225 -03- (04) <i>Note: These components can be inclusive within the design training.</i>		<b>RELATED SPECIALTY COURSES</b> <i>Electricity, Survey, Business Machines, Elementary Machines Design, Computer Aided Drafting, Hydraulics, Economics, Accounting, Numerical Control, ,</i>

SECTION - II. CURRICULUM EVALUATION *continued*B. ADDA CLASSIFICATIONS OF CURRICULUM *continued*DESIGN DRAFTER CLASSIFICATION *continued*

Two Year College Programs or Some Associate Degree Programs  
 Technical College and Institutional Programs and  
 Specific post secondary Vocational Programs

900 -12- (16) INSTITUTIONAL ELECTIVES

*Subject matter to satisfy special institutional requirement, e.g.,  
 History, Government, Physical Education, etc.*

Total 4500  
 Contact Hours

*Equates to 60 Semester Hours or 80 Quarter Hours*

Other courses and electives are required to complete 60 - 70 College level Credits Hours recommended by ADDA. The courses and electives are to be complementary to the area of study. (60 total credits minimum are required).

End of Design Drafter Level Classification Requirements.

SECTION - II. CURRICULUM EVALUATION *continued*B. ADDA CLASSIFICATIONS OF CURRICULUM *continued*DESIGNER LEVEL CLASSIFICATION

DESIGNER - Baccalaureate University or College Degree

The American Design Drafting Association has available additional discipline fields that may receive curriculum certification. The disciplines listed are not limited to those indicated:

Contact the Corporate Offices for additional information and details. Please refer to Section I-C for additional information and eligibility

The four-year Degree Program must meet the minimum requirements defined below.

SECTION - II. CURRICULUM EVALUATION continuedB. ADDA CLASSIFICATIONS OF CURRICULUM continuedDESIGNER LEVEL CLASSIFICATION continuedContact Hours- Semester Hours-  
(Quarter Hours)Subjects

Hour Legend

CH -SH- (QH) = Contact Hours -Semester Hours- (Quarter Hours)

1500 -20- (25)	<b>ADVANCED DESIGN COURSES</b> <u><i>Mechanical Engineering</i></u> ( <i>Advanced Machine Design, Dynamics, Fluid Mechanics, Kinematics, Special Design Project Courses</i> ) <u><i>Architectural</i></u> ( <i>Advanced Architectural Design, Strength of Materials, Architectural History</i> ) <u><i>AEC Engineering</i></u> ( <i>Structural Design, Dynamics, Statics, Concrete Design, Strengths of Material, Design Principles, etc</i> ) <u><i>Civil / Survey</i></u> ( <i>Advanced Civil Design, Hydrology, Concrete Design, Strength of Materials, Structural Design, Survey Principles, GIS, etc</i> ) <i>Piping, Electrical, HVAC, Aerodynamics, and others Available</i>
300 -04- (06)	<b>MANAGEMENT DEVELOPMENT COURSES</b> <i>Principles of Supervision, Industrial Organization, Management, Office Administration</i>
900 -10- (14)	<b>DESIGN and GRAPHICS COURSES</b> <i>Computer Graphics, Pipe Drafting, Structural Drafting, Highway Drafting, Architectural Drafting, Civil Drafting, HVAC Drafting, etc</i>
300 -04- (06)	<b>DESCRIPTIVE GEOMETRY</b> <i>Can be included within the Graphic or Related Courses</i>
750 -10- (14)	<b>PHYSICAL SCIENCES</b> <i>Physics, Chemistry other related sciences</i>
750 -10- (14)	<b>MATH – COLLEGE LEVEL</b> <i>Algebra – Trigonometry – Analytic Geometry – Calculus – etc.</i>
750 -20- (25)	<b>DESIGN FUNDAMENTALS -</b> <i>Statics – Strengths of Materials – Material Properties – Design Processes – Dynamics – Theories – History - Principles.</i>
600 -08- (10)	<b>MANUFACTURING – ENGINEERING – ARCHICTURAL - CIVIL PROCESSES</b> <i>Processes which support the related discipline, e.g. Welding, Machine Shop, Concrete Production, Instrumentation, etc...</i>



600 -08- (10)	<b>COMMUNICATIONS</b> <i>English Composition – Report Writing – Public Speaking – Visual Communications -</i>
750 -10- (25) 7200	<b>RELATED SPECIALTY COURSES</b> <i>Electricity*, Survey, Business Machines, Elementary Machines Design, Computer Aided Drafting, Hydraulics, Economics, Accounting, Numerical Control – etc.</i>
1800 -24- (32)	<b>INSTITUTIONAL ELECTIVES</b> <i>Subject matter to satisfy special institutional requirement, e.g., History, Government, Physical Education, etc.</i>
<b>Total 9,000 Contact Hours</b>	<b><i>Equates to 120 Semester Hours or 160 Quarter Hours</i></b>

Other courses and electives are required to complete 120 - 140 Semester Credits recommended by ADDA. The courses and electives are to be complementary to the area of study. (120 total credits minimum are required).

End of Designer Level Classification Requirements.

## Drafting Instruction Requirements

The minimum drafting program course of study must be at least two years in length (usually Grades 11 and 12) or the first year of a Vocational or Career Technical School, with class contact hours of 300 hours per semester or High School Year.

Program evaluation will be based on the formula of theory plus lab and research.

When an external vocational program, magnet high school or articulating training school is used to provide training and instruction in drafting, articulating with an academic institution, it is recognized that the student will receive instruction in the Disciplines of Drafting and Design and Drafting Production Techniques at the satellite facility.

Be advised, the Specific School must apply for certification, if using an articulating facility. ADDA will accept applications from independent schools using the same articulating training facility. Special Conditions Apply and application procedures are modified.

**SECTION - II. CURRICULUM EVALUATION** *continued***C. SUBJECTS****1. Drawing Courses**

For DESIGNER or DESIGN DRAFTER, the curriculum must be equally complete in the theory and technique of drafting, but must also extend into the field of engineering and design with which they are associated. They must encompass the ability to make use of graphic principles in the solution of problems relating to design/drafting.

The curriculum for DRAFTER and APPRENTICE DRAFTER should contain not only basic but advance drawing courses in one or more specialized fields. The courses should provide the student with a complete foundation in the theory and technique of drafting. They should offer training to develop manual skill in the use of instruments, the ability to do neat, legible, free-hand lettering and sketching in the area of specialization and computer-aided drafting (CAD) systems.

It is understood that drawing courses involve not only drawing board and CAD practice in a formal class but also lecture, discussion and individual guidance, as may be suitable, from an instructor present in the class. It is recommended that, when applicable, "Design" courses include a finished drawing product, as well as computation and access to and use of catalogs, standard parts lists, commercial accessories, etc., as may be necessary.

**2. Applied Technical Courses (includes basic sciences)**

Courses which equip the drafting student with technical information directly related to their ultimate duties as a drafter, and without the use of which they could be no more than a copyist, are classified as Applied Technical Specialties.

In the area of Machine Drafting, courses falling under this heading include such subjects as Metallurgy, Mechanics, Materials & Testing, Metal Shop, Machine Operations, Production Planning, Chemistry, Physics, and Computer Science.

These courses should be strongly recommended to the student to consider part of the core needs of any individual entering the design, drafting, engineering or architectural profession.

These professions can include individuals who work in the support professions such as material estimators, technical illustrators, machinist, quality control technicians and many others that are directly tied to the overall design professions.

**SECTION - II. CURRICULUM EVALUATION** continued**C. SUBJECTS** continued**3. Mathematics**

The DRAFTER curriculum should include Algebra I, II, and Geometry, and Trigonometry at the post-high school level. In the Designer and Design Drafting Classifications, Analytic Geometry and Calculus should be required or integrated in design courses. It is expected the treatment will be oriented towards the needs of the profession. Additional advanced math programs are strongly suggested but it is understood all schools may not have these available as part of the schools overall curriculum.

**4. General Subjects** (English, Communications, Leadership, Humanities, and others)

Subjects that contribute to the overall improvement of a student and to his or her development as a citizen, which are not directly related to his or her activities as a designer or drafter, are included under this heading. All levels include an allowance for studies under this general heading.

**D. ADMISSION REQUIREMENTS**

The quality of any training program is dependent to a great extent upon the prior preparation of students accepted for participation.

It should be understood of the student that drafting is a program based on engineering and science. These subjects should be promoted as necessary training to coincide with drafter training on the secondary level to deliver a well rounded and qualified apprentice drafter.

The minimum admission requirements for all post-secondary courses of study should be as follows:

1. Graduation from an accredited secondary school unless in a qualified apprenticeship program at a qualified school or the equivalent education substantiated by the method recognized by the state in which the institution is located.
2. A demonstrated desire and capacity for the satisfactory achievement of the work outlined in the curriculum.

**END OF SECTION II**



## Section III

# CERTIFICATION PROCEEDURE

- A. SUBMISSION OF APPLICATION FORMS AND FEE**
- B. . . . . CURRICULUM ANALYSIS AND EVALUATION**
- C. . . . . . . INSPECTION AND FINAL EVALUATION**
- D. . . . . . . . . . . AWARD OF CERTIFICATION**
- E. . . . . . . STUDENT RECOGNITION CERTIFICATES**
- F. . . . . . . . . . . DURATION OF CERTIFICATION**
- G. . . . . . . . . . . TERMINATION OF CERTIFICATION**
- H. . . . . . . . . . . LEVELS OF CERTIFICATION AND FEES**



## SECTION - III. CERTIFICATION PROCEDURE

### A. SUBMISSION OF APPLICATION FORMS AND FEE

A school desiring certification should submit the application package with appropriate fee to ADDA Corporate Offices requesting consideration toward certification. A current copy of the school catalogue, showing details of curriculum and descriptions of courses and credits, should be attached. The purpose of the application is to report the various details of administration, aims, equipment, facilities, staff qualifications, enrollment, graduate's records, and curriculum.

### B. CURRICULUM ANALYSIS AND EVALUATION

Analysis and evaluation of the course outline and supportive material is conducted by the "ADDA Certification Committee". The results, including any recommendations for strengthening or augmenting, will be sent to corporate offices to be forwarded to the school. The level of Certification for which the curriculum appears to qualify will be verified and recorded.

If the curriculum meets requirements, and if the application is complete and does not have any significant deficiencies or omissions, Certification may be approved (after inspection, for Engineering Designer level).

If the application and other data on the school indicate the curriculum does not meet ADDA standards, the school will be informed of the rejection. A service fee of \$50 will be charged for evaluation, and the remainder of the fee submitted will be returned to the school.

### C. INSPECTION AND FINAL EVALUATION

Inspection is at the discretion of ADDA. Typically on the secondary level, inspection is not necessary unless requested by the State, Local School District, or Facility Administration.

**Inspection is required at the Designer Classification** (and may be requested by institutions seeking certification at any level.) When an inspection of the premises is required, advance notice will be given and a suitable date will be set up for the visit. The visit will include interviews and an inspection of the school to substantiate the application.

The institution will be required to provide room and reasonable per diem expenses, based on a maximum of two ADDA team members, plus cover the cost of their travel to the institution. At least one member of the team must be a member of ADDA and will be assigned by ADDA Corporate Offices. A second member may be recommended by the institution from local or regional industry, subject to approval of ADDA Curriculum Certification Committee.

The report of the inspection and all pertinent data will be reviewed by the Certification Committee for final decision. When the decision is returned to corporate offices, the school will be advised of the results.

**SECTION - III. CERTIFICATION PROCEDURE** continued**D. AWARD OF CERTIFICATION**

Assuming favorable completion of the evaluation, a Certificate will be prepared and awarded to the school. Announcement of Certification will be made in the Association's newsletter, *Design Drafting News*, and will be posted on the Association's web site (<http://www.adda.org>).

The awarding of the Certificate is evidence that the curriculum has been evaluated and approved by ADDA and that it has been found satisfactory as claimed in the Statement of Purpose (see page 1). A school whose drafting or design curriculum is officially certified by ADDA is entitled to use and publish for the duration of the Certification the statement: "This Curriculum is Certified by the American Design Drafting Association at the \_\_\_\_\* Level." \**Drafter, Apprentice Drafter*

**E. STUDENT RECOGNITION CERTIFICATES**

Upon request by the school, certificates noting completion of a certified program will be provided for students who have properly completed all requirements of the approved curriculum.

The school should send a list of names and addresses of graduating students to the ADDA corporate office well in advance of graduation dates.

There will be a \$2.00 charge for each certificate issued plus shipping cost.

**F. DURATION OF CERTIFICATION**

Certification is valid for one year and is effective from the issue date through August 31, yearly.

**G. TERMINATION OF CERTIFICATION**

*The Certification may be canceled or for any one of the following reasons:*

1. A lessening or weakening of the curriculum.
2. An unfavorable report from the school's Advisory Committee.
3. Failure to submit an Annual Renewal Report to ADDA
4. Failure to provide additional verification details
5. False information issued in annual report
6. Information submitted that cannot be validated
7. Violation of the ADDA Code of Ethics
8. Failure to pay the annual renewal fee.

**SECTION - III. CERTIFICATION PROCEDURE** continued

## G. TERMINATION OF CERTIFICATION continued

*Should the Certification be invalidated the following items must be followed:*

1. Discontinue announcing ADDA's Certification of their curriculum.
2. Discontinue publicizing the ADDA's Certification of their curriculum
3. Return the Curriculum Certification Certificate to the Corporate Office
4. Discontinue administering the Certification Examinations under the Curriculum Certification clause of the Testing Site Criteria

**ADDA Procedures upon Certification Invalidation**

*ADDA reserves the right to post, print, publish and notify disciplinary actions taken against any school or institution to the membership, departments of education, and any other public, private, or government agency that has interest in the ADDA certification process, for the purpose of strengthening and safeguarding the validity and reputation of this association and it's membership.*

## H. LEVELS OF CERTIFICATION AND FEES

- Each program will be reviewed for its content and requirement.
- Unless otherwise requested programs will be certified based on core drafting practices and the academic requirements set forth by the state department of education.

<b>DESIGNER</b>	\$500.00
<b>DESIGN – DRAFTER</b>	\$450.00
<b>DRAFTER</b>	\$400.00
<b>APPRENTICE DRAFTER</b> - Post-Secondary and above	\$350.00
<b>APPRENTICE DRAFTER</b> – Secondary Only	\$300.00

- \*ADDA currently offers a “Digital Technician” Graphic Design Curriculum Certification program.
  - Available in Singular Modules i.e. “Digital Photography Technician”
  - Available in a Complete 4 year High School Program “Certified Digital Technician”

**END OF SECTION III**



## Section IV

### APPENDIX

**A. . . . . TEST OBJECTIVES**

**B. . . . . EQUIPMENT LIST**

## SECTION - IV: APPENDIX

## A. TEST OBJECTIVES

Without aid of reference the tester will show in writing knowledge of the following with a total of 75% correct responses in the following core, intermediate or advanced drafting and design practices. These are based on the industry accepted theories, principles, rules and requirements applied in a workplace environment.

## Common terms used in:

Drafting occupations  
Drafting media, equipment and reprographics  
Sketching, scales, lettering and lines  
Processes and Geometrical Applications  
Geometric construction

Pictorials  
Sections & Revolutions  
Conventional Breaks  
Multiviews - Auxiliary Views  
Fits and tolerances

## Specific facts concerning:

Drafting media, equipment and reprographics  
Geometric construction  
Multiview and Auxiliary Views  
Pictorials  
Sections, Revolutions, and Conventional Breaks

Dimensions and Notes  
Working Drawings  
Basic Welding  
Architecture terms/standards

## Symbols used in:

Sections, Revolutions, and Conventional Breaks  
Working Drawings  
Manufacturing Process

Basic welding  
Fits and tolerances  
Architecture terms/standards

## Method and procedures for:

Drafting media, equipment and reprographics  
Sketching, scales lettering and lines  
Geometric Construction  
Multiview and auxiliary views

Pictorials  
Sections & Revolutions  
Conventional Breaks  
Dimensions and notes

## The principles of:

Sketching, scales, lettering and lines  
Geometric Construction  
Multiview and Auxiliary views  
Pictorials

Sections & Revolutions  
Conventional Breaks  
Dimensions and notes  
Manufacturing process

## Comprehension of:

Multiview visualizations

Pictorial visualizations

## SECTION - IV: APPENDIX

**B. RECOMMENDED EQUIPMENT**

The following is a list of recommended equipment for schools seeking ADDA Curriculum Certification at the Drafting Level.

**Software**

It is recommended that any software used for educational purposes be compatible with the requirements of employers within the school's service employment area or the geographic area where the majority of students are employed upon program completion.

**Example:**

Softwares D & E are used at 14 companies having a total of 100 employees.  
Software C is used in only one company but employs 25 of my 30 graduates annually.

Software C should be your primary software training.  
Other software should be used in conjunction for student exposure and flexibility.

Also, Software is now becoming very specialized to specific disciplines. This brings a heavy burden within the training program of all schools.

Concentrate training on the concepts of CAD operation and not on specific software. Architectural firms will use something totally different than Civil or Mechanical firms. Also as you approach specialized markets such as Automotive, Aeronical, Naval Architecture and even HVAC, you will find a specific software for each of these areas.

You cannot train for everything. Stick to the basics. A good student can quickly adapt and change between softwares in just a matter of weeks. A student with the conceptual knowledge of how CAD operates will normally be productive enough to make simple drawing changes within a day or two.

**ADDA does not recommend or endorse any vendor's software.**

**Equipment**

It is understood that some schools may have equipment in excess of that listed below.

The equipment list is not inclusive or conclusive. ADDA shall approve the equipment list based on each individual program. ADDA does not recommend purchasing additional equipment prior to processing this certification information unless the program coordinator is certain that it will be necessary.

## SECTION - IV: APPENDIX

## B. RECOMMENDED EQUIPMENT LIST

Computer Workstations

- CADD Software                      Chairs                      Computers Systems

Furniture & Equipment

- Chairs/Stools
- Drawing Tables or Surfaces (where manual drawing or sketching is used)
- Drafting Machines (Arm, T-Square, or Track where manual drawing is used)

Media & Plotter Papers

- Polyester Film (Mylar)                      Bond                      Vellum

Supplies

- Architectural Floor Plan Templates
- Circle Template(s)
- Automatic and/or mechanical pencils (3, 5, 7 & 9 mm)
- Compasses (bow, beam, and drop bow)
- Dividers
- Drafting brush
- Drafting tape
- Erasers (pencil, ink and plastic)
- Erasing shield
- Irregular curves
- Lettering guide
- Sandpaper sharpening pad
- Triangles (30-60-90 and 45)

Reproduction & Equipment

- Appropriate Material for Duplicating (ink, toner, paper, etc.)
- Digitizing Tablets or Table (based on curriculum certified)
- Printer (dot matrix, ink jet or laser)
- Scanner large or small format  
(at least one of the following)
- Engineering Copier / Printer, Blueprint or Diazo Machine
- Plotter (pen or electrophotographic)

## SECTION - IV: APPENDIX

**B. RECOMMENDED EQUIPMENT LIST****Reference Books (Based on Curriculum Certified)**

*Note: Booked Marked Websites are acceptable where students have internet access.*

*ADDA still strongly recommends printed material to strengthen the ability to search and reference.*

- Applicable Standards                      Drafting Text
- Building Codes                              Design Procedures
- Product Catalogs                          How-To Publications

**Storage Cabinets for drawings (Where Applicable)****Textbooks**

- See List for Suggested Text

**Triangular Scales:**

- Mechanical
- Architects
- Civil Engineer
- Metric
- Flat Scales may be substituted

**Video Equipment (at least one of the following)**

*Note: Presentation and delivery via Electronic Projection Systems is almost a must in today's Training and Workforce environment. ADDA strongly recommends the use and instruction of these processes to the student at all levels.*

- CD / VHS Player with TV or Projection Equipment
- Laptop / Notebook (strongly recommended but not required)
- VGA-XGA Projector (strongly recommended but not required)
- Whiteboards or Chalkboards with markers or chalk

END OF SECTION IV



## Section V

# SUBMISSION PROCEDURES

**A. . . . . HOW TO FILE**

**B. . . . . FILING PROCEDURE**



## SECTION - V: APPLICATION FOR CURRICULUM CERTIFICATION

### 1. HOW TO FILE

Download the Curriculum Certification Package from the ADDA Website.

Go To > Curriculum Certification

Then to > "read more" under the Curriculum Certification Package

Then > Download the "Curriculum Certification Package"

This Download is a WinZip File and requires the WinZip Software to open.  
If you do not have this FREE software, download from the displayed page.

Within the download you will find 25 Folders, Named Tabs 1 – 25.  
These Folders contain the required information and forms.

Provide the information as requested. Save the information back into the folder.  
When Complete, Save to a Compact Disk and Ship as directed.

### 2. FILE TAB CONTENTS

The certification information is to be provided ONLY on a Compact Disk (CD)

The Curriculum Certification Package on the website contains the following information.  
Tabs are as follows

Index or Table of Contents and

Individual tabs 1 - 25

Forms / Information to be completed and /or provided:

1. Application for ADDA Curriculum Certification  
(Download the Curriculum Application Package at [www.adda.org](http://www.adda.org))
2. Program Evaluation Checklist  
(Form Included in Application Package)
3. Proof of Claims  
(Form Included in Application Package)

**SECTION - V: APPLICATION FOR CURRICULUM CERTIFICATION**

2. FILE TAB CONTENTS *continued*
  
4. Statement of Purpose  
*(Provide on Institution Letterhead)*
  
5. Advisory Committee / Craft Committee List  
*(Include Name-Telephone Numbers-Addresses)*
  
6. Advisory Committee / Craft Committee Minutes  
*(Include all minutes and meeting notes)*
  
7. Curriculum Analysis  
*(Form Provided)*
  
8. Faculty Information Sheet  
*(Form Provided)*
  
9. Program Information  
*List the program for which you are requesting certification  
i.e., Classification III-IV Architectural*
  
10. Equipment List  
*(Provide on Institution Letterhead)*
  
11. Text Books Used  
*(Provide on Institution Letterhead)*
  
12. Major Reference Materials Used and On-site  
*(Provide on Institution Letterhead)*
  
13. Floor Plan of the Drafting / Design Department  
*(this shall include lecture and lab areas)*
  
14. Digital Photographs  
*these shall include the physical plant, classroom, & lab  
printed photographs shall be 4x6 - 2 each per page and labeled.*
  
15. Course Overview
  
16. Student Syllabus
  
17. Instructor Syllabus



**SECTION - V: APPLICATION FOR CURRICULUM CERTIFICATION**

2. FILE TAB CONTENTS *continued*
  
18. Detailed Lesson Plans  
Provide 3 or 4 lesson plans to give a general indication of program
19. Quizzes, Test, and Final Examinations
20. Additional Requirements
21. Cooperative Programs or Internship Programs  
*(If not applicable, please insert statement)*
22. Correspondence *(this area is for information from and to ADDA)*
23. Additional Information
24. Leave Empty
25. Leave Empty

This Concludes all information related to Certifying your Program and Curriculum with ADDA.  
If you have any questions please contact ...

Pennie King [pking@adda.org](mailto:pking@adda.org)

Or Telephone 731-627-0802

Thank you for considering ADDA as your Certifying Industry Organization.

End of Package..