



48th Annual (2015) NATIONAL DRAFTING CONTEST

PURPOSE:

The purpose of this contest is to encourage excellence in effort and discipline, and to give recognition to outstanding students and design/drafting programs.

ELIGIBILITY: To be eligible students must be:

- A current member of an Association Student Chapter.
- Currently enrolled in a school with curriculum certified by the Association.
- Currently enrolled in a school having an Educational Institution Membership.

***Entrants may not be employed in a professional design or drafting position.**

DEADLINE:

All entries must be received and posted no later than December 18, 2014. Due to the time constraints required to distribute entries to the judges, any drawings received after that date will not be accepted. **A secure FTP Site is being developed which will allow the Instructor to submit entries; instructions will be posted at a later date**

GENERAL RULES:

See Category Section for specific additional rules that may apply.

- Only **ONE** entry per student.
- All entries must be submitted by the instructor.
- Entries submitted by individual students, will not be accepted.
- See **Attachment-Entry Naming Requirements** for format and file naming conventions.
- **Multiple sheet entries must be submitted as single PDF** files, set-up as they would be plotted for fabrication/production/presentation.
- Drawing entry must be constructed using a standard sheet size (A, B, C or D), **according to Division rules**. Maximum drawing size is 24"x36".
- Student entries must be submitted using one of the ADDA Drafting Contest drawing sheet formats which can be downloaded in .dwg format from the Attachments folders.
- Entries must be of a student's current work, not a **COPY** or **DIGITIZED** reproduction.
- Drawings must be complete, **unfinished drawings and non-conforming drawings will not be evaluated.**
- Drawings must conform to the latest Drafting/CAD standards, where applicable.
- **Drawings that do not conform to standards, incorrect view projection, incorrect format/title block, wrong subject for Division entered, will not be evaluated.**

Instructors are expected to inspect and screen drawings prior to submission.

(See guidelines in the Instructors Cover Letter included as part of this package, concerning instructor's role).

- Lettering on manual drawings must be constructed freehand; the use of lettering templates or mechanical lettering devices is not permitted.
- Decisions of the judges are final.
- All entries become the property of the ADDA.

JUDGING CRITERIA

The Judges will be looking for good drafting techniques and skills. Judging is based on the principles and theories of the profession and not based on solely the creation process. Judges have been directed to evaluate entries according to the 'letter of the rules.' Judging is based on both industry standards and ANSI/ASME Standards.

1. Appearance/Neatness
2. Accuracy including SAE/ASME, ASTM or ANSI Material Numbering System
3. Line work, Line type differentiation including proper use of line type and centerlines.
4. View selection
5. Organization (correct view placement)
6. Dimensioning, dimensioning style and placement including appropriate tolerances to match general tolerances in Title Block.
7. Lettering, font size and appropriateness
8. Spelling
9. Title Block (correct, unmodified use of the ADDA Contest formats). Title Block is to be complete with students name and date, instructors name, school, contest division, sheet number(s) and assembly name.
10. Creativity
11. Reproducibility and legibility of plot

The Contest Committee will direct judging.

Feedback will be provided to each contributing institution concerning the status of all entries after the judging is completed

AWARDS & RECOGNITION

The winning entries in each division will be indicated by the following awards.

- **BOARD OF GOVERNORS AWARD OF EXCELLENCE**
- **BOARD OF DIRECTORS AWARD**
- **PRESIDENTIAL AWARD**

A recognition certificate will be awarded to each of the three places in each Division. However, awards may not be granted for all places. For instance, a Division may have 10 entries but only 2 would qualify for awards. A minimum score of 70 is required to place.

The Board of Governors winners will also receive a \$100.00 cash prize and a voucher for the conference fees worth up to \$677.00. Winners will be invited to accept their award during the Annual Conference, during the week of March 24-27 in Kansas City, MO. at the Holiday Inn Plaza. ADDA will provide meals during the conference sessions on Wednesday, Thursday and Friday for the attendee. All other meals are at the attendee's expense. ADDA does not furnish Transportation or Lodging to or from the Conference for any attendee.

All winning entries will be displayed at the Annual Conference and names will be published on the American Design Drafting Association's website www.adda.org.

DIVISION/CATEGORY REQUIREMENTS

Category A is for advanced students. An advanced student is defined as any student that has completed high school and is furthering their education at any post-secondary institution. You will notice that this category may contain both CAD and manually prepared entries.

- **DIVISION A-RES** Architectural Residential Design Drafting
- **DIVISION A-APRE** Architectural Rendering
- **DIVISION A-MECH** Machine and Mechanical Working Drawings
- **DIVISION A-TILM** Technical Illustrated Mechanical

Category B is for beginning students. A beginning student is defined as any student that has not graduated high school but it may include any non-graduate of high school that may be taking post-secondary classes. (ie. dual enrollment classes or community/tech school classes) You will notice that this category may contain both CAD and manually prepared entries.

- **DIVISION B-ARES** Architectural Residential Design Drafting
- **DIVISION B-APRE** Architectural Rendering
- **DIVISION B-MECH** Machine and Mechanical Working Drawings
- **DIVISION B-TILM** Technical Illustrated Mechanical

Manual Drafting Entry Sheet Formats:

- Dimensions for the Mechanical sheet format, Title Block and Bill of Materials are shown in **Attachment-MechTitleBlock.dwg**
- For manually constructed Architectural entries the Format and Title Block dimensions are given in **Attachment-ArchTitleBlock.dwg**

Residential Architectural Design and Drafting **Divisions A-ARES & B-ARES**

- Submit as a single PDF file with plot set-up for construction print, black line-work, and no solid fills, on white background. **See special instructions for A-APRE and B-APRE.**
- Drawings entered in the current contest must be submitted on a MAXIMUM of FIVE (5) Architectural D-size" sheets. (**see Attachment-ArchTitleBlock.dwg**)

For A-RES design criteria see: Attachment-A-ARES Advanced

For B-RES design criteria see: Attachment-B-ARES Beginner

Architectural Rendering

- **B-APRE:** Construct a single view rendering of the front elevation (**Use Attachment-B-ARES Beginner**). The rendering must reflect the building structure and materials specified in the plans. Landscaping, figures, shading, background, autos, etc. should also be included. The student has the option of choosing the view orientation.
- Place the following information in the lower right hand corner of the illustration using a maximum of 14pt type
 - Category
 - Student Name
 - School
 - Instructor

- **A-APRE:** Prepare an animation/walk around, in .avi format, **using Attachment-A-ARES Advanced**. The animation must reflect the building structure and materials specified in the plans. Landscaping, figures, shading, background, autos, etc. should also be included. The presentation must be limited to **no more than 40 seconds**.
 - Category
 - Student Name
 - School
 - Instructor

Mechanical Drafting **Divisions A-MECH & B-MECH**

Division B-MECH

What You Are To Do:

Prepare a set of working drawings for **Tool Post Holder (see attachment Tool Post Holder-BMECH)**. The drawings will be constructed using standard 'B'- size (11" x 17") sheets; a maximum of four sheets may be used, each containing the ADDA Contest mechanical title block. (see **Attachment-MechTitleBlock.dwg**). The drawing package must include the following.

Assembly Drawing

- The Assembly Drawing must **contain 2 orthographic views of the assembly, identifying all individual parts and showing their relationship to each other. ISOMETRIC, EXPLODED ASSEMBLY OR 3D MODEL VIEWS CAN BE INCLUDED BUT SHOULD NOT TAKE PLACE OF REQUIRED ORTHOGRAPHIC VIEWS AND MUST IDENTIFY INDIVIDUAL PARTS**

- Bill Of Materials (Parts List), including detail/item number, description, ASME, ASTM, SAE or ANSI material type, quantity and sheet number for part detail.
- Identification Balloons need to be added with thin leaders to identify the individual parts on the assembly drawing.

Detail Drawings

- Detail drawings of the individual parts and their machining details must contain a **minimum** of 2 standard orthographic views using 3rd angle projection.
- All non-decimal dimensions need to be converted to three decimal places and placed on the drawing in the appropriate location. i.e. (.XXX)
- All detail drawings of parts must be fully dimensioned.
- Identification Balloons will be used **underneath** each detail to identify the
 - Name of the detail.
 - Number required.
 - Material, using the ASME, ASTM, SAE or ANSI Material Numbering System.

Division A-MECH

What You Are To Do:

Prepare a set of working drawings for **Belt Tightener (see attachment Belt Tightener-AMECH)**. The drawings will be constructed using standard 'B'- size (11" x 17") sheets; a maximum of four sheets may be used, each containing the ADDA Contest mechanical title block. (see **Attachment-MechTitleBlock.dwg**) . The drawing package must include the following.

Assembly Drawing

• The Assembly Drawing must **contain 2 orthographic views of the assembly, identifying all individual parts and showing their** relationship to each other. **ISOMETRIC, EXPLODED ASSEMBLY OR 3D MODEL VIEWS CAN BE INCLUDED BUT SHOULD NOT TAKE PLACE OF REQUIRED ORTHOGRAPHIC VIEWS AND MUST IDENTIFY INDIVIDUAL PARTS**

- Bill Of Materials (Parts List), including detail/item number, description, ASME, ASTM, SAE or ANSI material type, quantity and sheet number for part detail.
- Identification Balloons need to be added with thin leaders to identify the individual parts on the assembly drawing.

Detail Drawings

- Detail drawings of the individual parts and their machining details must contain a **minimum** of 2 standard orthographic views using 3rd angle projection.
- All non-decimal dimensions need to be converted to three decimal places and placed on the drawing in the appropriate location. i.e. (.XXX)
- All detail drawings of parts must be fully dimensioned.
- Detail drawings of parts 2, 3 and 4 shall include tolerance considerations (GD&T) due to their mating relationship per (ANSI Y14.5M).
- Identification Balloons will be used **underneath** each detail to identify the
 - o Name of the detail.
 - o Number required.
 - o Material using the ASME, ASTM, SAE or ANSI Material Numbering System.

Technical Illustration Mechanical Divisions A-TILM & B-TILM

A-TILM

What You Are To Do:

Prepare an animation, in .avi format of the **Belt Tightener (see Belt Tightener-AMECH)**. The animation must begin with an exploded view of the individual parts which must move into the assembly and then the assembly must rotate 180°. The presentation must be limited to no more than 30 seconds.

B-TILM

What You Are To Do:

Prepare an exploded pictorial drawing of **Tool Post Holder (Tool Post Holder-BMECH)**. Individual parts must be illustrated in functional position and displaying the maximum amount of features.

- Use a **THIN** centerline to indicate axis of explosion. Use 'flow lines' if parts must be offset to fit on the sheet. 'Flow lines' will also be **THIN** centerlines. 'Flow lines' may be straight or jogged but both ends must be oriented along the same axis as which they will assemble.
- Use item numbers in balloons with leaders to identify the individual parts (and/or sub-assemblies). The drawing **MUST** include a parts/material list using the provided ADDA Title Block information provided. Parts/material list shall include item number, quantity, description and material using the ASME, ASTM, SAE or ANSI Material Numbering System.

- Drawing and parts/material list must be on a single D size (24"x36") sheet with the mechanical title block. Title Block (correct, unmodified use of the ADDA Contest mechanical format). Title Block is to be complete with students name and date, instructors name, school, contest division, sheet number(s) and assembly name.