

# IDEA Annual Drafting-Design Competition

*Timetable for the 2015 Competition*



## February 7<sup>th</sup> – Regional Registration Deadline:

1. Download the XLSX registration form from the IDEA website and fill in the information.
2. Email the file as an attachment to [JoeSieczkowski@u-46.org](mailto:JoeSieczkowski@u-46.org).
3. Print the XLSX Spreadsheet and send by U.S. Mail with fee payment to:  
**Attn: Joe Sieczkowski**  
IDEA Financial Director  
224 Juniper Circle  
Streamwood, IL 60107

**NOTE:** Send by registered mail if concerned about deadline.

4. **NEW IN 2015 – The Financial Director will create a master enrollment file and share it with the Competition Director and Regional Directors, so you do NOT need to send the registration form to them.**

## February 20<sup>th</sup> – Regional Registration Update:

If there are changes to your final counts, you may email your Regional Director and you may also email Randy Jacobs at [IDEA@heartland.edu](mailto:IDEA@heartland.edu)

## March 6<sup>th</sup> – IDEA regional competition at the Regional Competition Site

Alternate dates for regions that cannot facilitate the March 6 date can be a week ahead or a week later. Contact the Competition Director for clarification, and to give notice.

## April 1<sup>st</sup> – State Registration Deadline:

- A. Registration qualifier XLSX forms for the state competition need to be emailed by the **REGIONAL DIRECTOR** by April 1<sup>st</sup>. This is a critical deadline for state competition planning.
- B. Individual teachers should also confirm and assist with state planning by emailing an XLSX RSVP form of their qualifying students, with an indication of those who plan to attend, to the Assistant Competition Director, Ryan K. Brown, email: [rkbrown@ilstu.edu](mailto:rkbrown@ilstu.edu)

## April 11<sup>th</sup> – IDEA State Competition at ISU in Normal, Illinois

# ILLINOIS DRAFTING EDUCATORS ASSOCIATION

Randy Jacobs, IDEA Competition Director  
Heartland Community College  
1500 West Raab Road  
Normal, Illinois 61761



January 13, 2015

Dear Regional Director:

The Illinois Drafting Educators Association has appreciated your support in the past as you hosted a regional drafting competition. This is a time-consuming task that could not be possible without your help. We are again calling on you and your institution to host the **38<sup>TH</sup> IDEA Regional Drafting-Design Competition** that will be held on **Friday, March 6, 2015**, at fifteen centers across the state. *NOTE: In case of conflict or inclement weather, a make-up date can be established one week earlier or later.* First and second place regional winners will be eligible to compete at our state competition to be held on **April 11, 2015**, at ISU in Normal. Last year, over 100 teachers and 1000 students were involved at the regional level. At the State Competition, over 65 teachers and 220 students were involved.

This year's paperwork will again be handled primarily via the IDEA web site, including regional site locations, calendar of events, rules and regulations, entry forms, and updates. Please check the web site - <http://www.idea-online.org/> and look under the **Competitions** link. **NEW FOR 2015. Registration forms have been switched from DOC to XLSX.** Teachers are to only send the registration form to the financial director, and he will create a master file for me. We will disseminate to you the regional enrollment sheet soon after the enrollment deadline.

This is my fifth year as IDEA competition director. As a former board member, I have been involved in IDEA for many years, and helped judge the state competition at ISU. Dr. Brown, now retired from ISU, will continue his role as the primary "problem" guy, and will assist with coordination of the state competition. We are looking forward to working with you to make this event a positive experience for you and your students. Thanks for helping make the IDEA competition a success year after year!

Sincerely,

Randy Jacobs, Competition Director  
Heartland Community College  
Office: 309-268-8860  
Cell: 309-530-5483  
Email: [randall.jacobs@heartland.edu](mailto:randall.jacobs@heartland.edu)

cc:  
Ryan Brown, Assistant Competition Director  
Associate Professor Emeritus, Illinois State University  
Cell: 309-825-2147  
Email: [rbrown@ilstu.edu](mailto:rbrown@ilstu.edu)

# Regional Awards Distribution Chart

(Effective for 2015 Competitions)

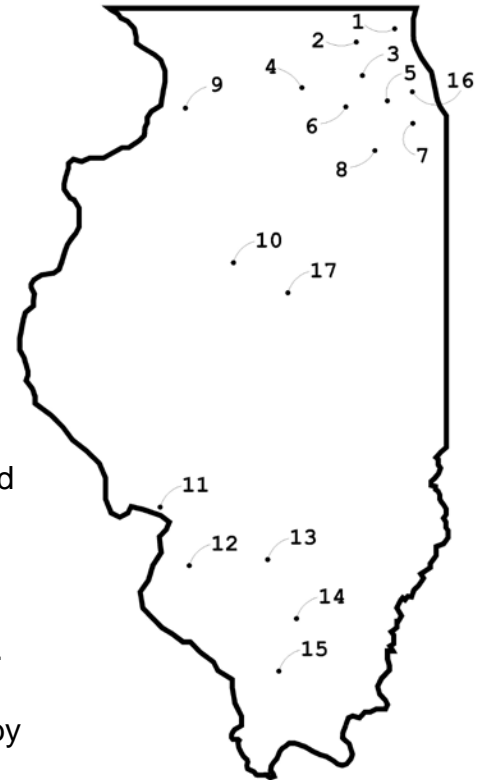
# of Entrants/Division	First Place	Second Place	Third Place
0-10	1	1	0
11-15	1	1	1
16-20	1	1	2
21-25	1	2	2
26-30	2	2	2
31-35	2	2	3
36-40	2	3	3
41-45	3	3	3
46-50	3	3	4
51-55	3	4	4
56-60	4	4	4
61-65	4	4	5
66-70	4	5	5
71-75	5	5	5
76-80	5	5	6
81-85	5	6	6
86-90	6	6	6

**Reminder: Only 1st & 2nd place winners qualify for the state competition**



# IDEA

## Drafting & Design Competition Regional Sites 2015



Visit [www.idea-online.org](http://www.idea-online.org) for registration rules, forms, sample problems from the past, and more!

If your school resides with a community college district represented by an IDEA regional site, you must select that site. If you are not sure of the site number for your school, you should contact the State Competition Director for advice. You may also contact regional directors of nearby competition sites for more information.

For 2015, registration and fees should be **postmarked** and **paid** by

**February 7, 2015.**

- |   |   |  |
|---|---|--|
| 1. College of Lake County<br>Tina Ye<br>eng524@clcollinois.edu<br>(847) 543-2625              | 7. Moraine Valley Community College<br>Charles Bales<br>bales@morainevalley.edu<br>(708) 974-5401                 | 13. Kaskaskia College<br>Richard Rittenhouse<br>RRittenhouse@kaskaskia.edu<br>(618) 545-3000 x3356 |
| 2. McHenry County College<br>Bob Mihelich<br>bmihelich@mchenry.edu<br>(815) 455-8719          | 8. Joliet Community College<br>Scott Boudreau<br>sboudrea@jcc.edu<br>(815) 280-2410                               | 14. Rend Lake College<br>Kevin Weston<br>westonk@rlc.edu<br>(618) 437-5321 x348                    |
| 3. Elgin Community College<br>Jesse Bader<br>jbader@elgin.edu<br>(847) 214-7599               | 9. Morrison Institute of Technology<br>Janice Drosopoulos<br>jdrosopoulos@morrisonstech.edu<br>(815) 772-7218 x32 | 15. John A. Logan College<br>Ron Parks<br>ronparks@jalc.edu<br>(618) 985-3741                      |
| 4. Kishwaukee College<br>Mark Schwendau<br>schwendau@aol.com<br>(815) 825-2086 x3480          | 10. Illinois Central College<br>Kevin Thomas<br>kthomas@icc.edu<br>(309) 694-8447                                 | 16. Triton College<br>JoBeth Halpin<br>jobethhalpin@triton.edu<br>(708) 629-5516                   |
| 5. College of Dupage<br>Jane Ostergaard<br>osterg@cdnet.cod.edu<br>(630) 942-2331             | 11. Lewis & Clark Comm. College<br>Joel Hall<br>jhall@lc.edu<br>(618) 468-4920                                    | 17. Heartland Community College<br>Use Region 10 in 2015   |
| 6. Waubonsee Community College<br>Randy Hines<br>rhines@waubonsee.edu<br>(630) 466-7900 x2930 | 12. Southwestern Illinois College<br>Shauna Scribner<br>shauna.scribner@swic.edu<br>(618) 235-2700                |  |

State Competition Director  
**Randy Jacobs**  
Heartland Community College  
[randall.jacobs@heartland.edu](mailto:randall.jacobs@heartland.edu)

Asst. Competition Director  
**Ryan K. Brown**  
Illinois State University (Retired)  
[rkbrown@ilstu.edu](mailto:rkbrown@ilstu.edu)

# Regional Director's Checklist - 2015

## IDEA Annual Drafting/Design Competition

### I. Advertise drafting competition

- A. Create/update a list of high school drafting/CAD teachers in your college district.
- B. Send letter of invitation to high school teachers with regional competition information: date, time schedule, location, rules, paper sizes for problems, entry form, map of college site, hardware/software available, parking permits and poster. JUST A THOUGHT: IN THE PAST, EMAIL HAS NOT ALWAYS BEEN 100% RELIABLE AS A COMMUNICATION TOOL – USE CONFIRMATION TECHNIQUES.
- C. Place the event on department & college calendars.

### II. Develop drafting-design competition program

- A. Welcome and introduction of college staff
- B. Schedule for the day
- C. Map of facilities with room locations
- D. Tours, demonstrations and/or presentations
- E. Awards ceremony

### III. Acquire judges, proctors, presenters, demonstrators, facilitator and tour guides

- A. Faculty judges – ONE (1) per division recommended (judge could proctor another division)
- B. Industry judges - ONE (1) per division recommended (judge could proctor another division)
- C. Faculty or Student proctors – ONE (1) per division recommended with 1 additional to fill in while a proctor takes a break
- D. Alternate judges and proctors – (someone always gets sick or has to cancel!)
- E. Faculty presenter(s) - ONE (1) 60 minute presentation on animation, 3D modeling, robotics, etc.
- F. Industry presenter(s) - ONE (1) 60 minute presentation on their products, employment opportunities, training and new technologies
- G. Teacher meeting facilitator – ONE (1) departmental member or administrator or a teachers from your region to run the meeting so the regional director can check for problems in testing rooms
- H. Faculty or Student tour guide(s) – ONE or TWO depending on number of participants to showcase college programs and facilities

### IV. Procure prizes (1<sup>st</sup> place plaques will be provided by IDEA for each division)

- A. School book store – hats, t-shirts, posters, promotional items
- B. Vendors – textbooks, drafting tools, software and equipment
- C. Industry donations – any of the above plus gift certificates
- D. Scholarships – tuition or flat amount

### V. Reserve rooms for competition

- A. One room for registration and welcoming contestants and teachers
- B. One to two rooms for board drawing divisions (depends on number of contestants)
- C. One to three rooms for CAD drawing divisions (depends on number of contestants)\*\*
- D. **Verify that you are able to handle the computer requirements of those divisions requiring computers and determine if any divisions need to be run in “shifts.”**
- E. One room for teacher meeting (distribute answer packets, state competition packets, articulation/dual credit and college program information and to share what they are doing in their programs)
- F. One for luncheon or arrange for space in school cafeteria
- G. One for judging of board drawings and booklet test answer sheets
- H. One for judging of CAD drawings if files are printed or plotted
- I. One for afternoon presentations
- J. One for awards ceremony

## VI. Two or three weeks before the day of the competition

- A. Create directional signs for entrances.
- B. Arrange for early morning refreshments for contestants, teachers and helpers.
- C. Arrange for refreshments for teacher meeting.
- D. Check luncheon arrangements – prepare meal tickets if necessary.
- E. Check availability and sizes of drawing sheets for hand drawing competition.
- F. Check printing/plotting capabilities, paper sizes available and location of extra print cartridges or plotting pens.
- G. Check shipment of 1<sup>st</sup> place plaques for errors and/or defects (can be replaced with two weeks notice)
- H. **NEW IN 2015 – A GOOGLE SPREADSHEET OF ENROLLED CONTESTANTS WILL BE COMPILED BY THE FINANCIAL DIRECTOR AND POSTED IN A SHARED FOLDER –**  
*(Note: Some registration forms may be emailed to you from teachers who haven't read the new instructions carefully. File these, but be prepared to get the master list from a shared folder.)*
- I. A ZIP file of Regional Competition Problems will be emailed to you by mid-February – Create a copy for each student registered plus one for each teacher plus a couple extras just in case someone's registration gets mishandled. Provide judges with a copy of the problem and solution as early as feasible so they are prepared to judge in a timely fashion.  
*(Note: Students and teachers may keep competition problems after the event).*
- J. Announce or make known to teachers that they may also access copies of the competition problems and solutions at our website – [www.idea-online.org](http://www.idea-online.org) – following the competition.
- K. Assemble teacher packet – possible contents: copy of their original registration form with student registration numbers, teacher's certificate, all student certificates, plus college/department information.
- L. Be prepared to issue students their registration form, appropriate drawing scoring sheet, drawings, and other certificates you may want to issue.
- M. Meet with proctors and judges to review schedule, testing and evaluation process - schedule proctors to be in testing rooms before students arrive to setup hand drawing equipment or select CAD workstation – IMPORTANT - have proctors do a roll call of contestants to make sure they are in the right place before starting the competition.
- N. Verify college personnel availability for welcoming session.
- O. Verify working status of CAD workstations and software – (DAY BEFORE is best!).

## VII. Day of Competition

- A. Post competition directional signs from entrances.
- B. Setup registration table – verify number of entries, identify any substitutions and handout teacher packet.
- C. Distribute problems and student packets to testing rooms – proctor should be in room.
- D. Welcome and introduce college/department personnel.
- E. Review competition and day's schedule – highlight afternoon programs.
- F. Meet with teachers during competition to welcome them and see who chaperones their students – make sure teacher packets have been distributed.
- G. Check in briefly with each testing room proctor – perhaps set up a cell-phone directory ahead of time if proctors have cell phones they could bring.
- H. Monitor collection of competition drawings, scoring sheets and registration forms at the end of each division competition.
- I. Meet with judges over lunch to review process.
- J. Check in with judges to determine time of completion.
- K. Check in with presenters to determine degree of participation and appropriateness of presentation.
- L. **DOUBLE CHECK WINNERS SCORES.**
- M. Set up for awards ceremony – plaques, prizes, etc.
- N. Conduct awards ceremony – remind 1<sup>st</sup> & 2<sup>nd</sup> place winners that their instructor should submit the **State Competition RSVP Form** to verify attendance at the state competition, as well as help with planning, although you also will be sending in a form (see below).

## VIII. After the Competition

Submit your **Regional Competition Qualifiers Form** – (*New for 2015 – An XLS file*) to the state competition director. This form enables us to verify the accuracy of individual teachers' RSVP forms.

# Regional Site Individual Registration Form

## IDEA Regional Drafting-Design Competition 2015

March 6, 2015

(The following should be filled out by the student at the regional competition site)

Registration No. \_\_\_\_\_

Student Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City & Zip Code: \_\_\_\_\_

Email address: \_\_\_\_\_

Home Telephone: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Circle Year in School: 9<sup>th</sup> Grade    10<sup>th</sup> Grade    11<sup>th</sup> Grade    12<sup>th</sup> Grade

Name of High School: \_\_\_\_\_

Name of Instructor: \_\_\_\_\_

### Contest Division (Check One)

Introductory Board \_\_\_\_\_

Introductory CAD \_\_\_\_\_

3D CAD Modeling \_\_\_\_\_

Assembly Modeling \_\_\_\_\_

Machine CAD \_\_\_\_\_

Architectural Board \_\_\_\_\_

Architectural CAD    2D \_\_\_\_\_    3D \_\_\_\_\_

Please leave this form with the Competition Proctor.

# IDEA Drafting-Design Competition - Rules and Regulations

## General Information:

1. There is a \$7.00 entrance fee per student for regional competition. There is no additional registration fee for contestants that advance to the state competition.
2. Instructors who are not members by December 1<sup>st</sup> of the current school year must pay a \$30.00 membership fee to I.D.E.A. before students will be registered for the competition.
3. Entry is limited to three (3) entrants and one (1) alternate of each instructor's students per division. When the regional site cannot handle entry numbers, each teacher will be allowed to enter two students per division.  
*Note: In an effort to increase attendees, additional entrants may be allowed upon approval by your Regional and State Directors.*
4. Exception to Number 3: Due to space limitations, the Architectural CAD category is divided into 2D and 3D competitors, but each school is still limited to 3 entrants for Architectural CAD. This exception was created to allow for two methods of solving the architectural CAD problem, yet not adding a complete category in all regional schools. Each region may handle this division as space requirements dictate.
5. Competition drawings and grading sheets may be picked up by the competitors after the awards ceremony.
6. Students enrolled in Industrial Technology programs meeting more than 1.5 hours per day may NOT compete in the Introductory Divisions.
7. The goals and objectives of the competition dictate that students must compete at their feeder Community College, if it is a regional site, or otherwise at the nearest regional site.
8. For exceptions to Number 7, contact the State Competition Director to facilitate a check on available space at another competition site, and the Director will need to evaluate the implications of the exception.
9. A student can only be registered in one division.
10. First and second place winners will qualify to advance to the state competition.
11. Students NOT registered for the regional competition will NOT be allowed to compete. Only regional competitors can qualify to attend the state competition.
12. Check for entry deadlines in the registration materials.

## Eight Award Divisions:

1. **Introductory Board:** **Entrants must have had less than one year of high school drafting.** Competitors will draw specified views of a given drawing problem. The drawing solution is a multiview problem, and will fit on either "A" or "B" size media. Competitors may also be asked to check 2D distances between specified corners of the object. Recommended time limit: 1.5 hours for the multiview drawing and distance checking.
2. **Introductory CAD:** **Entrants must have had less than one year of high school drafting.** Competitors will draw specified views of a given drawing problem. The solution will be designed to fit on either "A" or "B" size media. Competitors will also be asked to check 2D distances between specified corners of the object. Recommended time limit: 1.5 hours for the multiview drawing and distance checking.
3. **3D CAD Modeling:** **Entrants may have more than one year of high school drafting.** Competitors will model small objects within a designated time period. Entrants will calculate volume and distance checks of the objects modeled. The time limit will vary from 1 - 1.5 hours. Usually, there will be MORE problems than most students can do, but the student who scores the most correct volume and distance check points will be the winner.
4. **3D Assembly Modeling:** **Entrants may have more than one year of high school drafting.** Competitors will model a number of parts and assemble them. The problem will best be solved with a parametric constraint-based modeling program such as Inventor™ or Solidworks™. Recommended time limit: 1.5 hours.
5. **2D Machine CAD:** **Entrants may have more than one year of high school drafting.** Competitors will draw specified views (orthographic, auxiliary and/or sectional) from given pictorial or orthographic views in inches or metric. The solution will include dimensioning and notes and will fit on "B" or "C" size media. Recommended time limit: 1.5 hours. Note: This is still a 2D drawing problem. No 3D modeling will be allowed to assist with problem solving. Instructors are discouraged from allowing students to draw 2D drawings with programs that are primarily 3D programs. For example, even though a student might be able to create a 2D drawing with Inventor without using 3D models, this is NOT something that an instructor should coach a student to do!
6. **Architectural Board:** **Entrants may have more than one year of high school drafting.** Competitors will design and/or draw specified views, details, or sections using materials, specifications and drawings provided. The drawing will fit "B" or "C" size media. Recommended time limit: 1.5 hours.
7. **Architectural CAD (2-subdivisions):** **Entrants may have more than one year of high school drafting.** Competitors will design a solution and then either draw or model specified views, details, or sections from materials, specifications and drawings provided. The drawing(s) will fit "B" or "C" size media. Recommended time limit: 1.5 hours.



**NOTE: CLARIFICATION FOR THE ARCHITECTURAL 2D CAD DIVISION – STUDENTS MAY NOW BRING A TEMPLATE START FILE THAT HAS LAYERS SET UP AND SYMBOL LIBRARIES ON HAND. IT IS NOT PRACTICAL THAT STUDENTS CREATING 2D CAD DRAWINGS ALSO CREATE SYMBOLS FROM SCRATCH, NOR SPEND TIME SETTING UP LAYERS, LETTERING STYLES, DIMENSION STYLES, ETC. BE AWARE THAT NOT ALL COMPUTERS HAVE THE SAME DRIVE TYPES, SO VERIFY WITH YOUR REGIONAL DIRECTOR THAT YOUR METHOD OF BRINGING TEMPLATES FILES OR SYMBOL LIBRARIES WILL WORK, BE IT MEMORY STICK, CD, FLOPPY DISK (SURELY NOT!), ETC.**

**NOTE 2: Depending on the regional setup and enrollment, there may be two sets of winners within the Architectural CAD division. Entrants must designate **2D or 3D** when registering. Students who “draw” all the views using drafting procedures will be judged separately from those who “model” the building and use software to create the views. 3D modeling will only be allowed for entrants who specified 3D on their registration form. These entrants will use 3D modeling tools within programs such as AutoCAD Architecture™, Revit™, ArchiCAD™, SoftPlan™, etc. Entrants who marked 2D on their form must create all the views without using 3D models. EVEN THOUGH 3D PROGRAMS CAN DRAW 2D VIEWS, the 2D Division is for those who use 2D CAD commands (LINES, DIMENSIONS, TEXT, ARCS, etc.) such as AutoCAD™ and MicroStation™. Check with the Regional Director for specifics. Not all regional directors are able to provide both options for this division.**

### **Board Competitors:**

Students in this field are responsible for providing their own board drafting equipment at the regional and state competition sites. Competitors are to provide the following recommended equipment for both regional and state competitions:

1. Drawing board with T-square, parallel rule, or drafting machine (Minimum size 20" X 24").
2. Triangles (45 degree and 30/60 degree)
3. Scales: Customary inch and/or metric for Introductory; Mechanical Engineer's scale with decimal inches, fractional inches, and/or a metric ruler or scale for the Machine division; Architect's scale for the Architectural division.
4. Protractor
5. Eraser (manual), erasing shield, brush, dry cleaning pad, powder, or dust rag
6. Drafting tape
7. Compass or full instrument set
8. Lead sharpening device
9. Pencils or lead holders with appropriate leads
10. Circle template (up to 2")
11. Ellipse template (up to 2")
12. Backing paper (18" X 24")
13. Pocket calculator

### **CAD Competitors:**

#### **Regional:**

Teachers or students should check with the Regional Director of their site to see what equipment will be available for the student competitor to use. If a site has a limited number of CAD systems, a Regional Director may allow students to bring their own system. **Some Regional Directors may have to offer CAD competitions in shifts, so entrants may wish to bring reading or study materials in case of waiting a turn.**

#### **State:**

At the state competition at ISU, only current versions of the Autodesk products will be provided. Students using programs other than AutoCAD™, Inventor™, and Revit Architecture™ will be allowed to bring their own CAD system. Even at the state competition, students wishing to bring their own system for the products above could make arrangements to do so. In 2013 & 2014, state competitors in the 3D CAD Modeling, and Intro CAD divisions were required to take their own computers to ISU, and were provided only with table space and a power strip, and that will likely be the case again in 2015. Due to enrollment issues at some regionals, regional directors may wish for some students to bring their own systems. In addition, students should be coached on how to deal with generic installations of Autodesk products that may be different than their home school. For the state competition, teachers are encouraged to contact the assistant competition director, Ryan Brown, and double-check available system setups.

## **All Competitors:**

### **Scoring:**

1. Qualified judges, from industry when possible, will score problems in each division.
2. Drawing problems will be judged on completeness, accuracy, line quality, lettering and neatness. CAD problems will be judged on completeness, accuracy, line types and dimensioning, and with various "spot-check" rubrics.

### **Prizes:**

1. A first place plaque will be awarded in each division at each regional site. At the state competition, the 1<sup>st</sup> place teacher will also receive a plaque. SINCE 2011: At the state competition, students will be awarded medals instead of plaques.
2. Additional vendor prizes (such as CAD software or drafting tools or textbooks) may be awarded if available.

### **Responsibilities:**

1. Student transportation is the responsibility of the participating schools and instructors or parents.
2. The student, instructor, and parents are responsible for being adequately prepared for the above events.
3. While the hosting sites will take careful measures during the competitions, the I.D.E.A. organization, regional sites, and/or ISU are NOT responsible for students and their respective CAD systems while attending these competitions. Participating teachers, students, and parents should take necessary steps to meet the liability requirements of their respective institutions.
4. The I.D.E.A. organization, regional sites, and/or ISU are NOT responsible for students as they travel to and from the regional and/or state competition sites. Teachers should take necessary steps to meet the liability requirements of their respective institutions.