



Biotechnology Design

cover by:
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Livingston High School
1st Place Promtional Graphics
2012 State Conference



**2013 New Jersey
High School Supplement**



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2012-2013 New Jersey TSA

Executive Committee

State Officers

| | | |
|-------------------|------------------|--------------------------------|
| Anthony Graybush | President | Freehold Twp. High School |
| Derek Liu | Vice President | High Technology High School |
| Sreela Kodali | Secretary | High Technology High School |
| Daren Abad | Treasurer | Howell High School |
| Kimberly Wood | Sergeant-at-Arms | Freehold Twp. High School |
| Alexander Perotti | Reporter | Clearview Regional High School |
| Nicholas Falconi | Historian | Clearview Regional High School |

State Officer Advisors

| | |
|---------------------|--------------------------------|
| Mrs. Melissa Parr | Clearview Regional High School |
| Mr. Thomas Jennings | Freehold Twp. High School |
| Mr. Robert Dennis | High Technology High School |
| Ms. Sherry Roses | Howell High School |

State Regional Coordinators

| | | |
|--------------------|--------------------|-------------------|
| Mr. John McConnell | Stockholm, NJ | Northern Regional |
| Ms. Sherry Roses | Howell High School | Southern Regional |

State Advisor and Corporate Member

Ms. Alison Goeke, The Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Competitive Event Coordinator

Mr. Henry Harms, The Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Project Administrator

Ms. Michelle Ordini, The Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Business Administrator

Ms. Jeanette Vega, The Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Forward

The diverse competitive events that are listed within this booklet are open to TSA chapters affiliated through registration with the New Jersey state office of TSA, completed by January 21, 2013. The High School State Conference will be held at The College of New Jersey on Wednesday April 10, 2013.

How this booklet works

The *NJ Supplement* works in conjunction with the National TSA Competitive Events Guide found on the High School Competitive Events CD, which should be received 2-4 weeks after affiliation with the National TSA Office has taken place.

This booklet presents the competitive events offered at the NJ State Conference in alphabetical order as well as the maximum number of participants or teams permitted to compete from each chapter. Each New Jersey competitive event in this booklet lists only the modifications from the National guidelines. Substitute the NJ modification in this booklet for the number or letter on the National guidelines to ensure that your chapter meets the guidelines for the NJ Competitive Events.

Competitive Event Categories

Competitive Events are organized according to the requirements for student participation in those competitions. There are three categories: **On-Site, Pre-Conference and Static.**

“On-site Events” require student participation on conference day. Some On-Site Events may even include components that must be completed and submitted prior to conference day. Because of the time commitment involved, students may participate in only one On-Site Event (and no more than four total events).

“Pre-Conference Events” require that entries be submitted prior to the conference, on a designated submission date established by NJ TSA. These entries are judged days prior to the conference and put on display the day of the conference. Some Pre-Conference events may have components or presentations that also take place the day of the conference.

“Static Events” require students to submit entries on conference day, however, students are not required to remain with their entries or make presentations. Static Events usually consist of students creating a display or prototype. These entries are checked-in the morning of the conference in the designated event room listed in the conference program. Judging takes place behind closed doors. After judging is finished, all entries are put on display for the remainder of the conference day.

Please be sure to read all sections of the *Supplement* carefully!

It is the hope of the NJ TSA Executive Committee that this guide will enable teachers, advisors, students and competitive event judges to be better prepared for participation at the State Conference this spring.

Any questions may be directed to Ms. Alison Goeke, NJ TSA State Advisor at (609)771-3244 or goeke2@tcnj.edu or Henry Harms, NJ TSA Competitive Event Coordinator, at harms@tcnj.edu.

General Rules Governing Competitive Events

I. HIGH SCHOOL EVENTS

The officially approved **Level II** New Jersey TSA Competitive Events for high school are:

| ON-SITE | PRE-CONFERENCE | STATIC |
|---|--|---------------------------|
| Animatronics | Career Preparation | Architectural Renovation |
| Biotechnology Design | Computer-Aided Design (CAD), 2D, Architecture | Manufacturing Prototype |
| Chapter Team | Computer-Aided Design (CAD), 3D, Engineering | System Control Technology |
| Debating Technological Issues | Computer Numerical Control (CNC) Production | |
| Engineering Design | Desktop Publishing | |
| Essays on Technology | Digital Video Production | |
| Extemporaneous Speech | Dragster Design <i>(Top 16 cars raced on conference day)</i> | |
| Flight Endurance | Fashion Design <i>(Runway show takes place on conference day)</i> | |
| Future Technology Teacher <i>(Binder submitted Pre-Conference)</i> | Music Production | |
| Prepared Presentation | On Demand Video | |
| Structural Engineering | Open Source Software Development | |
| Technical Sketching and Application | Photographic Technology | |
| Technology Bowl | Promotional Graphics | |
| Technology Problem Solving | SciVis | |
| VEX Robotics | Transportation Modeling | |
| | Video Game Design | |
| | Webmaster | |

II. PROJECT SUBMISSION

- A. On-site events require students to submit entries, make presentations and/or participate/compete in activities *at* the conference.
- B. Static events require students to submit a display or prototype the day of the conference, however, there is no presentation component along with the entry.
- C. Pre-Conference events require projects to be submitted and judged *prior to* the conference

- 1. Pre-Conference entries mailed must be received by **April 2, 2013**.

Send to:
NJ-TSA/Alison Goeke
The College of New Jersey
2000 Pennington Rd
Armstrong 103
Ewing, NJ 08628

Please call (609)771-2295 or fax (609)771-3330, or email ordini@tcnj.edu the NJ-TSA office to indicate description and quantity of items being mailed include event names and ID #'s for each entry.

- 2. Entries dropped off at the NJ-TSA office at The College of New Jersey must be received by **April 2, 2013**. Please call (609)771-2295 the TSA office to arrange time for delivery. If submitting entries through the mail or other carrier services please email ordini@tcnj.edu with date of shipment and contents of package. You may also be asked to provide a tracking number.
- 3. Entries dropped off at the Northern NJ site (NJ-TSA Northern Regional Office, 16 Deer Trail Lake Rd., Stockholm, NJ 07460) must be received **April 1, 2013**. Please call John McConnell at 973-903-1970 to arrange time for delivery.
 - Items received after these dates may not be included in competitions.
 - Mailed deliveries should include provision for obtaining **proof of delivery**.
 - Packages should include a label or packing slip describing contents.

III. PARTICIPATION IN COMPETITIVE EVENTS

- A. TSA members may only register and participate in **ONE On-site event**, and no more than **FOUR total events**.
- B. Students must be registered at the state conference in order to enter and become finalists/winners in a competition. **NO ON-SITE OR LATE REGISTRATIONS WILL BE ACCEPTED.**

- C. **No substitutions will be accepted after registration closes, or at the conference.**
Substitutions in team events will be accepted only from pre-registered applicants, and only under extenuating circumstances.
- D. **No school or individual names labeled on projects** except for Webmaster and Career Preparation, which requires school information. **Otherwise, only ID#'s are to be used.** Upon registering students online, they are automatically assigned an ID#. **This number needs to be labeled on every piece of a project/entry (i.e. binders, CD's/DVD's, models, displays, copyright/release forms, etc.).**
- E. All video/electronic files (e.g. Music Production, Video Game Design, etc.) become the property of NJ TSA. Please be sure to make a copy for yourself before the project is submitted.
- F. Projects/entries are picked up at the time stated in the conference program and or event display room. All entries not accounted for will be discarded the following day if no arrangements have been made with the NJ TSA office otherwise.
- G. Audio visual equipment will be provided for competitive events that require it.
- H. NJ TSA is not responsible for compatibility issues with electronic files. Judges will not be permitted to install programs to view files.
- I. Proper procedures for citing material taken from other sources must be followed as outlined in specific competitive event guidelines. Copyright procedures, checklist and forms must be completed and submitted with entries when necessary.
- J. No electronic communication devices of any kind are permitted during competitions and will result in disqualification.
- K. No one will be permitted to leave a test event and return unless otherwise instructed by judges.

IV. COMPETITIVE EVENTS ATTIRE

ALL STUDENTS ATTENDING THE CONFERENCE **MUST** wear either official TSA or business-like attire. Your cooperation with this policy will assist in providing a positive image for the organization and its members.

- A. Official TSA Attire: *An official blue shirt is being introduced as part of the official TSA attire and the female tie is being eliminated. For more info go to: <http://www.tsaweb.org/Dress-Code>*
Blazer: navy blue with official TSA patch
Ties: scarlet red imprinted with official TSA logo (for males and females)
Shirt or blouse: white, button-up with turn down collar
Pants or skirt: light gray
Dark socks: males only (black or dark blue)
Shoes: black dress shoes (unacceptable: athletic shoes, combat or work boots)
Sandals: females only may wear black open toe shoes or sandals
- B. Business-like attire is considered to minimally include:
collared shirt/blouse
long pants (no shorts or jeans)
dresses/skirts
socks/hosiery
appropriate footwear
- C. The official NJTSA Polo Shirt may be substituted for a collared shirt/blouse.
(Order form available on NJ-TSA Website)

Students NOT wearing official TSA or business-like attire *will lose 20 points from total score of each event entered and will not be granted entry into the awards ceremony.*

A 20 point deduction will also result from the wearing of hats.

All individuals attending the awards ceremony must present their official State Conference ID Badge provided to them at registration. Anyone not in possession of their badge will not be admitted to the Awards Ceremony.

V. PROPERTY DAMAGE OR LOSS

The College of New Jersey and TSA are not responsible for damage to or loss of property brought to the conference. Please remind students there is no need for them to bring any personal items such as laptops to the conference and that their personal belongings are their sole responsibility that they should not be left behind in any location on campus.

VI. SCHOLARSHIPS AND AWARDS

New Jersey TSA Scholarship

\$500 scholarship supports the mission of TSA by encouraging NJ-TSA members to continue their education.

Criteria

- Be a senior and have participated in an active TSA chapter for a minimum of two consecutive years.
- Served or currently serving as a TSA officer at the local, state and/or national level for a minimum of one academic year.
- Attend and participate in at least two TSA conferences at the state level.

Application must include:

- A signed cover letter containing:
 1. A detailed description of the applicant's involvement in TSA based on the above criteria
 2. A list of technology education engineering courses completed and in progress.
 3. SAT score and/or ACT score
 4. GPA (4.0 scale) and if available high school class rank (indicate how many in class)
- No more than three letters of reference, one of which must come from a technology education teacher.
- A single-spaced, one page typed essay on his or her career plans.

Application must be submitted by

5:00pm on April 2, 2013 to:

Alison Goeke, State Advisor

New Jersey Technology Student Association

The College of New Jersey

103 Armstrong Hall, PO Box 7718

Ewing, NJ 08628-0718

TSA Achievement Program

The TSA Achievement Program (bronze, silver, gold awards) is designed to motivate and recognize student members for high effort in a school's technology education program. Bronze, silver, and gold pins will be awarded at the State Conference. Please provide Alison Goeke (goeke2@tcnj.edu/Fax#609-771-3330) with a list of any award winners and their Activity Resumes by *5:00pm on April 2, 2013*. Go to <http://www.tsaweb.org/Student-Achievement-Awards> to view and print forms.

TSA Technology Honor Society

The TSA Technology Honor Society recognizes TSA members who excel in academics, leadership, and service to their school and community. The TSA Technology Honor Society is (1) an opportunity for student members to be recognized for their efforts and (2) designed to recognize TSA members who exemplify the high ideals of academics. Go to <http://www.tsaweb.org/Student-Achievement-Awards> to view and print forms. Please send completed forms to Alison Goeke (goeke2@tcnj.edu/Fax#609-771-3330) by *5:00pm on April 2, 2013*.

Johnson & Wales University

Scholarships will be awarded to 1st, 2nd and 3rd Place winners in the following events:

- Computer-Aided Design 2D, 3D
- Promotional Graphics
- Technical Sketching & Applications
- Webmaster

Scholarship amounts for use at Johnson & Wales are as follows:

| | |
|------------------------------|--------|
| 1 st place winner | \$1000 |
| 2 nd place winner | \$750 |
| 3 rd place winner | \$500 |

VII. IMPORTANT DATES AND DEADLINES

January 21, 2013

- State Conference Registration OPENS
- Design Problems posted on NJ TSA website (<http://njtsa.pages.tcnj.edu/>)

February 28, 2013

- On Demand Video theme posted at 5pm on NJ TSA website (<http://njtsa.pages.tcnj.edu/>)

March 5, 2013

- On Demand Video entries must be received at the NJ TSA office or postmarked by 5pm

March 20, 2013

- State Conference Registration CLOSES at 5pm (absolutely no changes can be made after this time).

April 1, 2013

- All Pre-Conference entries delivered to the Northern NJ Drop-Off Site must be received.

April 2, 2013

- NJ TSA Scholarship, Achievement Award, Technology Honor Society and State Officer Nominations must be received at the NJ TSA office by 5pm.

April 2, 2013

- All Pre-Conference entries must be received at the NJ TSA office.

April 10, 2013

- NJ TSA High School State Conference, The College of New Jersey

June 28-July 2, 2013

- National TSA Conference, Orlando, FL

Plan now to attend the
35th Annual
National TSA Conference
June 28-July 2, 2013
Rosen Shingle Creek Resort
Orlando, Florida
Theme: *"A Tradition of Excellence"*

Level II – High School Events

Animatronics

On-Site Event

| | |
|--------------|--|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | A. 2 teams of 3 members per chapter B. No semifinalists. All teams will give a presentation up to 5 minutes in length. |
| TIME LIMITS | No change |
| PROCEDURE: | No change |
| REGULATIONS: | No change |
| EVALUATION: | No change. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |

Architectural Renovation

Static Event

2013 Design Problem: <http://www.tsaweb.org/Themes-and-Problems>

| | |
|--------------|--|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 1 individual or team per chapter |
| TIME LIMITS | No change |
| PROCEDURE: | C. No semifinalists. Winners are announced at Awards Ceremony. Delete D & E. No interview. |
| REGULATIONS: | No change |
| EVALUATION: | Evaluation is based on 220 points earned for the notebook, the design and the model. No interview. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |

Biotechnology Design
On-Site Event
 2013 Area of Focus: “Energy”

| | |
|---------------------|---|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | A. 1 team of 2 to 5 members per chapter. B. No semifinalists. All teams give presentation. |
| | |
| TIME LIMITS | B. No semifinalists. All teams will give a presentation up to 10 minutes in length. |
| | |
| PROCEDURE: | C. No semifinalists. A list of all times for all team presentations will be listed in random order and posted. D. (2) Representatives from each team report to event area at the time posted for their multimedia presentation. E. Remove Semifinalists and replace it with each team representatives |
| | |
| REGULATIONS: | E. No semifinalists. Each team must be prepared to participate in the semifinalist interview and give a brief multimedia presentation which explains the team’s selection of the problem and its solution and is not to exceed the (10) ten minutes. Evaluators then ask questions. F. A computer for the multimedia presentation will be provided by NJ TSA. Teams must bring their presentation on a removable device such as CD, DVD, or flash drive. |
| | |
| EVALUATION: | Evaluation is based on documentation, the display, and the presentation/interview. No semifinalists. All teams give presentation. <i>No school or individual names labeled on projects; only ID#’s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |

Career Preparation

Pre-Conference Event

2013 Research each of the careers:

- Computer software specialist
- Film and video editor
- Biomedical engineer

| | |
|---------------------|---|
| OVERVIEW: | No semifinalists. Winners announced at the Awards Ceremony. No on-site interview. Resumes and cover letters submitted Pre-Conference. |
| | |
| PURPOSE: | No interview. Resumes and cover letters submitted Pre-Conference. No semifinalists. Winners announced at the Awards Ceremony. |
| | |
| ELIGIBILITY: | 2 individuals per chapter |
| | |
| TIME LIMITS | A. Resumes and cover letters are submitted Pre-Conference. Delete B. |
| | |
| PROCEDURE: | B. Resumes and cover letters submitted Pre-Conference. Delete C-E. |
| | |
| REGULATIONS: | A. Entries are submitted Pre-Conference. D-E. There is no on-site component. |
| | |
| EVALUATION: | Based on 80 points. No interview. |

Chapter Team

On-Site Event

| | |
|---------------------|--|
| OVERVIEW: | No semifinals. All teams make the oral presentation. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of six (6) members per chapter. Team members do not have to be elected officers of the local chapter. No semifinalists. All teams take the written test and participate in the oral presentation. |
| | |
| TIME LIMITS | B. No semifinalists. Time-related penalties apply. |
| | |
| PROCEDURE: | C-D. All teams will make the oral presentation. |
| | |
| REGULATIONS: | I. No semifinalists. All teams participate in the oral presentation. |
| | |
| EVALUATION: | No semifinalists. All teams will be evaluated according to the criteria on the official rating form. |

Computer-Aided Design (CAD), 2D, Architecture

Pre-Conference Event

2013 Design Problem will be posted on the NJ TSA website on January 21, 2013

| | |
|---------------------|---|
| OVERVIEW: | No change This design problem will be posted on the NJ TSA website on January 21, 2013. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual per chapter |
| | |
| TIME LIMITS | Delete A-C. Entries must be completed during the school year and are submitted Pre-Conference. There is no on-site component. Design problem will be posted on the NJ TSA website on January 21, 2013. |
| | |
| PROCEDURE: | Delete A-H. Entries are submitted Pre-Conference. Entries are picked up at the time and place stated in the conference program. |
| | |
| REGULATIONS: | Delete A-D. Delete F-G. Designs submitted on a maximum paper size of 24" x 36" or smaller sheets mounted on a 24" x 36" sheet with no overlapping papers. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| | |
| EVALUATION: | Delete "on screen." |

Computer-Aided Design (CAD), 3D, Engineering

Pre-Conference Event

2013 Design Problem will be posted on the NJ TSA website on January 21, 2013

| | |
|---------------------|---|
| OVERVIEW: | No change This design problem will be posted on the NJ TSA website on January 21, 2013. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual per chapter |
| | |
| TIME LIMITS | Delete A-C. Entries must be completed during the school year and are submitted Pre-Conference. There is no on-site component. Design problem will be posted on the NJTSA website on January 21, 2013. |
| | |
| PROCEDURE: | Delete A-H. Entries are submitted Pre-Conference. Entries are picked up at the time and place stated in the conference program. |
| | |
| REGULATIONS: | Delete A-D. Delete F-G. Designs submitted on a maximum paper size of 24" x 36" or smaller sheets mounted on a 24" x 36" sheet with no overlapping papers. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| | |
| EVALUATION: | Delete "on screen." |

Computer Numerical Control (CNC) Production

Pre-Conference Event

| | |
|---------------------|---|
| OVERVIEW: | Participants design a mousetrap car for CNC machine production. Evaluation is based on design and documentation. No machined parts are submitted. Documentation binder is submitted Pre-Conference. |
| PURPOSE: | Participants demonstrate the use of critical thinking skills to design a mousetrap car, appropriate materials and fabrication techniques for CNC production. |
| ELIGIBILITY: | 1 team of 2 members per chapter |
| TIME LIMITS | Delete B-E. Binder is submitted Pre-Conference. |
| PROCEDURE: | Delete A-L. Binder is submitted Pre-Conference. |
| REGULATIONS: | A.1.e. Change “photographic images” to “3D drawings.” B. Items listed under “Materials” must be incorporated into the mousetrap car design. Delete C-D. |
| EVALUATION: | Evaluation is based on the documentation (80 points). |

Debating Technological Issues

On-Site Event

2013 Topic: Social Media

Subtopic 1- Should your use of social media, on or off the job, affect your employment status?

Subtopic 2- Does the use of social media increase the risk of identity theft?

Subtopic 3- Should providers/creators of social media sites be held liable for the negative impacts that may result from their use, such as bullying, predatory stalking, etc.?

| | |
|---------------------|---|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 1 team of 2 members per chapter |
| TIME LIMITS | No change |
| PROCEDURE: | Delete P. Q. No semifinalists. Winners announced at Awards Ceremony. S. No finalists. Winners announced at Awards Ceremony. |
| REGULATIONS: | Delete H. I. No observers allowed in debate room. No semifinalists. |
| EVALUATION: | No change |

Desktop Publishing

Pre-Conference Event

2013 Theme: "Promote the TSA Program at the school, state, and national levels and TSA competitions"

| | |
|---------------------|---|
| OVERVIEW: | Delete "All participants work to solve an onsite problem." Notebook and USB flash drive containing digital copy submitted Pre-Conference. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual per chapter |
| | |
| TIME LIMITS | Delete B-C. No on-site component. |
| | |
| PROCEDURE: | Delete C-E. G. Winning entries become the property of NJ TSA. |
| | |
| REGULATIONS: | B. No on-site portion. The notebook and USB flash drive containing the PDF file are submitted Pre-Conference. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| | |
| EVALUATION: | Evaluation is based on points earned for News Release, Newsletter, and Poster for a total of 100 points. No on-site problem. |

Digital Video Production
Pre-Conference Event
 2013 Theme: "Follow the Rules"

| | |
|---------------------|---|
| OVERVIEW: | No change Note: NJ TSA reserves the right to eliminate any entries that contain inappropriate content. These entries will not be judged. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual or team of up to 5 members per chapter |
| | |
| TIME LIMITS | No change. Film must be submitted on a DVD that works in a standard DVD player. |
| | |
| PROCEDURE: | C. No finalists. Winners are announced at Awards Ceremony. |
| | |
| REGULATIONS: | C. All entries become the property of NJ TSA. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| | |
| EVALUATION: | No change |

Dragster Design

Pre-Conference Event

| | |
|---------------------|--|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 2 individuals per chapter |
| | |
| TIME LIMITS | <i>Dragster and drawing submitted Pre-Conference. Cars that do not meet specifications will NOT be raced.</i> |
| | |
| PROCEDURE: | Dragster and drawing are submitted Pre-Conference. Delete F. No wind tunnel test. |
| | |
| REGULATIONS: | <p>No change</p> <p><u>PLEASE NOTE:</u></p> <ul style="list-style-type: none"> • The top 16 dragsters meeting specifications will be raced in the double elimination bracket at the conference. • <u>Cars not meeting specs WILL BE DISQUALIFIED from competition.</u> • A caliper will be used for all measurements • All front wheels must be outside car body |
| | |
| EVALUATION: | <p>Evaluation is based on 105 points. No wind tunnel test.</p> <p>The top 16 dragsters meeting specifications will be raced in the double elimination bracket at the conference. <u>Cars not meeting specs WILL BE DISQUALIFIED from competition.</u></p> <p><i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i></p> <p>Place ID# on drawings and directly on dragster. It is recommend ID#'s are placed on bottom or back side of dragster with tape or label.</p> |

Engineering Design

On-Site Event

| | |
|---------------------|--|
| OVERVIEW: | No semifinalists. All teams give a timed presentation |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of 3-5 members per chapter |
| | |
| TIME LIMITS | B. No semifinalists. All teams will give a presentation of up to 10 minutes in length. |
| | |
| PROCEDURE: | B-D. No semifinalists. All teams will give a presentation of up to 10 minutes in length at the time designated by the event coordinator at check-in. |
| | |
| REGULATIONS: | E. No semifinalists. All teams give presentation/interview. |
| | |
| EVALUATION: | No semifinalists. All teams participate in presentation/interview. |

Essays on Technology

On-Site Event

2013 Topic: “The Positive and Negative Effects of Technology on Today’s Youth”

Subtopics: -Education
-Social Development
-Ethics

| | |
|---------------------|--|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual per chapter |
| | |
| TIME LIMITS | No change |
| | |
| PROCEDURE: | H. No finalists. Winners announced at Awards Ceremony. |
| | |
| REGULATIONS: | G. All essays become the property of NJ TSA |
| | |
| EVALUATION: | No change |

Extemporaneous Speech

On-Site Event

| | |
|---------------------|------------------------------------|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual per chapter |
| | |
| TIME LIMITS | No change |
| | |
| PROCEDURE: | Delete C.2, C.3, H, I, J. |
| | |
| REGULATIONS: | E. No observers will be permitted. |
| | |
| EVALUATION: | No change |

Fashion Design

Pre-Conference Event

2013 Theme Challenge: Design two (2) outfits associated with protective clothing for a first responder that can be worn daily. Participants are responsible for creating three (3) items total that can be worn with either of the outfits.

| | |
|---------------------|---|
| OVERVIEW: | Portfolio, patterns, accessories and garments are submitted Pre-Conference . No semifinalists. All teams do runway presentation on conference day. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 2 teams of 2-4 members per chapter |
| | |
| TIME LIMITS | B. No semifinalists. All teams make presentation. |
| | |
| PROCEDURE: | A-B. Entries are submitted Pre-Conference. C, D, F, H. No semifinalists. All teams do runway presentation. Winners announced at Awards Ceremony. |
| | |
| REGULATIONS: | E. A CD player will be provided but all sounds associated with the presentation need to be able to be played on a standard player with track numbers labeled clearly for playing. F. No semifinalists. All teams participate in the runway show. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on all parts of student projects.</i> Labels/tape are recommended for labeling garments, documentation, and on the outside of submission container and garment bag. |
| | |
| EVALUATION: | No semifinalists. Winners announced at Awards Ceremony. |

Flight Endurance

On-Site Event

| | |
|---------------------|---|
| OVERVIEW: | No change Plane is built off-site and submitted for judging on conference day. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 individual per chapter, one entry per individual |
| | |
| TIME LIMITS | B. Participants are provided a minimum of 20 minutes for trim flights at the event's site. |
| | |
| PROCEDURE: | K. No finalists. Winners announced at Awards Ceremony. Participants pick-up planes at time/location specified by event coordinator. |
| | |
| REGULATIONS: | No change PLEASE NOTE: B. Plane must be contained in a flight box. |
| | |
| EVALUATION: | No change. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> Place ID# on drawings and directly on plane. It is recommend ID#'s are placed on bottom or back side of plane with tape or label. |

Future Technology Teacher On-Site Event

| | |
|--------------|---|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 2 individuals per chapter |
| TIME LIMITS | B. Notebook submitted Pre-Conference. C. Lesson plan/activity is presented On-Site. |
| PROCEDURE: | F. Notebook submitted Pre-Conference. G. No semifinalists. H. No semifinalists. All participants present lesson plan/activity. |
| REGULATIONS: | G. Audio visual equipment will be provided by NJ TSA. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| EVALUATION: | No change |

Manufacturing Prototype Static Event

2013 Product: "A Green Product Made from Sustainable Materials"

| | |
|--------------|--|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 2 teams of 2 to 5 members per chapter. 1 entry per team |
| TIME LIMITS | No change |
| PROCEDURE: | No change |
| REGULATIONS: | No change |
| EVALUATION: | No change. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |

Music Production

Pre-Conference Event

| | |
|---------------------|---|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team per chapter. Team work is strongly encouraged, but a team of 1 member is permitted. |
| | |
| TIME LIMITS | D. No semifinalists. No interview. Entries submitted Pre-Conference. |
| | |
| PROCEDURE: | Delete C-D. |
| | |
| REGULATIONS: | E. All entries become the property of NJ TSA. |
| | |
| EVALUATION: | Based on 100 points. No interview. |
| | |
| | <p><i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i></p> <p>ID#'s should be labeled on CD, CD case (if included) and notebook.</p> |

On Demand Video

Pre-Conference Event

2013 Theme will be posted on the NJ TSA website at 5pm on February 28, 2013.

| | |
|---------------------|--|
| OVERVIEW: | The theme and any required criteria will be announced on the NJ TSA website at 5pm on February 28, 2013. Participants will write, shoot and edit a sixty (60) second video. The video and notebook must be submitted by 5pm on March 5, 2013. Entries will be judged and put on display at the State Conference. |
| PURPOSE: | No change |
| ELIGIBILITY: | 1 team of 2 or more members per chapter. One entry per team. |
| TIME LIMITS | Delete A, C. Theme will be posted on the NJ TSA website at 5pm on February 28, 2013. Entries must be received at the NJ TSA Office or postmarked by 5pm on March 5, 2013. |
| PROCEDURE: | A. Notebook and video submitted Pre-Conference (by March 5, 2013). B. Theme will be posted on the NJ-TSA website on February 28, 2013. Delete E-G. Winners announced at Awards Ceremony. |
| REGULATIONS: | B. Entries become the property of NJ TSA. H. Video and notebook are submitted Pre-Conference. |
| EVALUATION: | No change |

Open Source Software Development

Pre-Conference Event

| | |
|---------------------|--|
| OVERVIEW: | No semifinalists. No presentation. Binder and CD/DVD submitted Pre-Conference. |
| PURPOSE: | No change |
| ELIGIBILITY: | 2 teams of 2 to 5 members per chapter |
| TIME LIMITS | B. No semifinalists. No presentation. |
| PROCEDURE: | B-D. No semifinalists. No presentations. Winners announced at Awards Ceremony. |
| REGULATIONS: | C. Participants will pick up entries at the time specified in the program. |
| EVALUATION: | Evaluation is based on documentation and design (110 points). |

Photographic Technology
Pre-Conference Event
 2013 Theme: "Courage"

| | |
|---------------------|---|
| OVERVIEW: | No semifinalists. Winners will be announced at Awards Ceremony. Documentation binder and multimedia presentation submitted Pre-Conference. |
| PURPOSE: | No semifinalists. |
| ELIGIBILITY: | 1 individual per chapter, 1 entry per individual |
| TIME LIMITS | No change |
| PROCEDURE: | <p>A. Entries are submitted Pre-Conference.</p> <p>B. Entries are reviewed by evaluators and winners are announced at the Awards Ceremony. No semifinalists.</p> <p>Delete C – K.</p> <p>I. Multimedia presentation submitted on a CD or DVD and must include 15 photos. No semifinalists. All individuals submit the multimedia presentation Pre-Conference.</p> |
| REGULATIONS: | <p>No change.</p> <p>Please read Regulations carefully, paying close attention to size requirements.</p> <p><i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i></p> <p>ID#'s should be labeled on binder and CD/DVD.</p> |
| EVALUATION: | Evaluation is based on 150 points earned for the documentation binder and multimedia presentation. There is no On-Site component. |

Prepared Presentation
On-Site Event
 2013 Theme: "A Tradition of Excellence"

| | |
|---------------------|---|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 1 individual per chapter |
| TIME LIMITS | No change |
| PROCEDURE: | D. No observers will be permitted. Delete E-G. |
| REGULATIONS: | F. NJ TSA will provide a computer, projector and screen. All files must be on a USB drive or CD/DVD. G. NJ TSA will provide easel, table and podium. |
| EVALUATION: | No change |

Promotional Graphics
Pre-Conference Event
 2013 Options: --Animatronics
 --Chapter Team
 --Music Production

| | |
|---------------------|---|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 2 individuals per chapter, 1 entry each |
| TIME LIMITS | No change |
| PROCEDURE: | A. Entries submitted Pre-Conference. Submit entry in PDF format via email to tsachall@tcnj.edu by 12 midnight EST on April 2, 2013. The subject line of the email must be: Promotional Graphic entry for (student ID#). Example: Promotional Graphic entry for 100001. C. No finalists. Winners are announced at the Awards Ceremony. |
| REGULATIONS: | E. All entries become the property of NJ TSA. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| EVALUATION: | No change. |

SciVis
Pre-Conference Event

| | |
|---------------------|--|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of 2 to 5 members per chapter. |
| | |
| TIME LIMITS | Delete D. No semifinalists. Entries submitted Pre-Conference. No interview/presentation. |
| | |
| PROCEDURE: | Delete A-D. Entries submitted Pre-Conference. |
| | |
| REGULATIONS: | Delete E. No presentations. Delete H. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| | |
| EVALUATION: | No interview will be included in the scoring. Evaluation will be based on 80 points. |

Structural Engineering
On-Site Event
2013 Structure: “Build a Box Girder Beam”

| | |
|----------------------------------|--|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of 2 per chapter |
| | |
| TIME LIMITS | A. Change time from 2.5 hours to 2 hours. Delete C. |
| | |
| ATTIRE and SAFETY EYEWEAR | Students must bring their own safety eyewear. |
| | |
| PROCEDURE: | <p>C. Each team will receive tool box items from NJ TSA:</p> <ul style="list-style-type: none"> -A blade and anvil cutter -Straight pins and pin board -One (1) oz bottle of CA glue -Wax paper -Ruler <p>D.2.a. Students must bring two copies of prepared sketches for each of the three lengths: 12”, 14” and 16”.</p> <p>H. Change time from 2.5 hours to 2 hours for construction.</p> |
| | |
| EVALUATION: | <p>No change</p> <p>Please note:</p> <p>I. Structures are not to be tested if</p> <ol style="list-style-type: none"> 1. there are two (2) or more rules violations. 2. the structure cannot be placed on the tester. 3. the testing hook cannot be placed in the center of the structure. 4. straight pins are left in the structure. 5. there is failure to wear safety eyewear. 6. conduct unbecoming a TSA conference participant is evident during check-in, fabrication or testing. |

System Control Technology

Static Event

2013 Design Problem will be posted on the NJ TSA website on January 21, 2013

| | |
|---------------------|---|
| OVERVIEW: | Delete "on site." Model is constructed off-site during the school year. |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of 3 per chapter |
| | |
| TIME LIMITS | Design problem will be posted on the NJ TSA website on January 21, 2013. A. There will be a 15 minute set up time (students set up the device and leave instructions for evaluators to operate the device). Delete B. C. Model is constructed off-site |
| | |
| PROCEDURE: | Delete B. C. Inventor's log is completed off-site. Delete D-E. |
| | |
| REGULATIONS: | No change |
| | |
| EVALUATION: | Stand-alone project. Instructions must be left for evaluators to operate the device. |

Technical Sketching and Application

On-Site Event

| | |
|---------------------|---|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 2 individuals per chapter |
| | |
| TIME LIMITS | A. Participants are allowed 1 hour for written test. B. No semifinalists. All participants have 1 hour for on-site problem. |
| | |
| PROCEDURE: | C. No semifinalists. Winners will be announced at Awards Ceremony. D. No semifinalists. Winners will be announced at Awards Ceremony. All participants take the written test and solve on-site problem. |
| | |
| REGULATIONS: | B-E. All participants will receive the necessary materials. No semifinalists. |
| | |
| EVALUATION: | Delete A-B. Evaluation is based on 50 point test and 50 point evaluation of technical sketch/drawing. |

Technology Bowl

On-Site Event

| | |
|---------------------|---|
| OVERVIEW: | All participants will complete a written exam and then participate in the oral event. |
| PURPOSE: | No change |
| ELIGIBILITY: | 1 team of 3 per chapter |
| TIME LIMITS | A. 45 minutes B. All teams will participate in the oral competition. |
| PROCEDURE: | <p>Delete A-K. Follow the procedures listed below:</p> <ul style="list-style-type: none"> A. Following the written test, team members will report to the oral event area holding room for briefing at the designated time. After briefing, advisors must leave and the team will remain in the holding room until called for competition. Teams may visit with other teams; however, <u>no advisors or visitors</u> may enter the holding room. B. No audience members are permitted into the oral event area. C. When instructed to do so, two (2) teams will enter the event area and be seated according to instructions. D. When a team has been defeated in any round of the oral event, the team is out of the competition. E. Questions will be drawn, as needed, from a card file resource bank. F. A team's total score is derived from the correct answers to the questions asked. For each correct answer, a team will receive ten (10) points. When a question has been completely read and a team is recognized to answer, if the team does not answer or answers incorrectly, five (5) points will be deducted from the team's score. In this instance, the other team does not have the opportunity to respond to this question, and the next question is read for both teams. If a question is being read and a team member presses the button before the question is finished, the member must answer completely as stated on the answer card. If the answer given is incorrect, the entire question will be read for the other team. G. A total of twelve (12) questions will be asked per round. No questions will be repeated in another round. In the case of the tie, five (5) additional questions will be asked. This procedure will continue until the tie is broken. The questions will be picked at random from the basic areas tested. H. <u>Bonus Question</u> There will be one additional question (bonus question). The bonus question will be announced, and the team that answers it correctly will have the opportunity to answer one additional question. This is the only time when team members |

| | |
|---------------------|---|
| | <p>may consult with each other before giving an answer. The team will have ten (10) seconds to give its answer. If a team gives an incorrect answer to the bonus question, then the question will be read to the other team. Bonus point scoring: If a team answers the bonus correctly, that team receives fifteen (15) points; if a team answers the bonus incorrectly, that team loses five (5) points from its score.</p> <ol style="list-style-type: none"> I. A panel of evaluators will be available to respond to questions concerning acceptable answers. <ol style="list-style-type: none"> 1. Rulings on acceptable answers will be made only during the round in question. 2. Rulings will be made immediately, to do one of the following: <ol style="list-style-type: none"> a. Accept only the answers listed on the card. b. Accept the student's answer and renew points, or remove the question and read another in its place. c. The rulings of the panel will be final. |
| REGULATIONS: | <p>A-B. Delete. Follow regulations listed below:</p> <ol style="list-style-type: none"> A. No transmitting or recording devices, including cell phones, will be permitted in the event area. No prompting will be permitted. B. The team member who "buzzes in" will have five (5) seconds to answer the question, without discussion. C. The team that answers the bonus question will be allowed ten (10) seconds to discuss the extra question and give an answer. D. After a question is read, the competing teams will have ten (10) seconds to answer. If neither team can answer the question, then another question will be read. E. If a team member "buzzes in" before a question is finished being read, that member must give the exact answer as printed on the card. |
| EVALUATION: | <p>A-C. Delete. Follow evaluation listed below:</p> <p>Evaluation is based on the total points from the three written tests plus the total points from the oral competition. Awards will be given to the top three (3) teams</p> |

Technology Problem Solving

On-Site Event

| | |
|---------------------|---|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of 2 per chapter |
| | |
| TIME LIMITS | No change |
| | |
| PROCEDURE: | A.1-10. Students will be provided with the necessary tools and materials. A.9. Each team member must bring his/her own safety glasses. B.1-7. Students will be provided with the necessary tools and materials. |
| | |
| REGULATIONS: | No change |
| | |
| EVALUATION: | No change |

Transportation Modeling

Pre-Conference Event

2013 Design Theme: "The next generation of a high speed rail train engine"

| | |
|---------------------|--|
| OVERVIEW: | No change |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 2 individuals per chapter |
| | |
| TIME LIMITS | No change |
| | |
| PROCEDURE: | No time trials will be conducted. Delete A. Entries are submitted Pre-Conference. Delete C-D. E. Evaluation is based on notebook and model. |
| | |
| REGULATIONS: | Delete B. Delete E. <i>No school or individual names labeled on projects; only ID#'s are to be used. Upon registering students online, they are automatically assigned an ID#. This number needs to be on student projects.</i> |
| | |
| EVALUATION: | Evaluation is based on points earned for notebook and model (120 points). |

VEX Robotics

On-Site Event

| | |
|---------------------|--|
| OVERVIEW: | Go to http://www.tsaweb.org/Vex-Robotics-Competition Questions related to VEX should be directed to: Hillary Lee at the National TSA Office: hlee@tsaweb.org or Henry Harms, NJTSA Competitive Event Coordinator: harms@tcnj.edu |
| PURPOSE: | |
| ELIGIBILITY: | 1 team of up to 6 members per chapter. |
| TIME LIMITS | |
| PROCEDURE: | |
| REGULATIONS: | |
| EVALUATION: | |

Video Game Design

Pre-Conference Event

| | |
|---------------------|--|
| OVERVIEW: | No change |
| PURPOSE: | No change |
| ELIGIBILITY: | 1 team of 2 to 5 members per chapter. |
| TIME LIMITS | No change |
| PROCEDURE: | B. No semifinalists. Winners announced at Awards Ceremony. Delete C-D. No semifinalists. No interview. Entry submitted Pre-Conference. |
| REGULATIONS: | B. PLEASE NOTE: The Game must execute and be played directly from the DVD. Entries will be evaluated using only a PC platform. Participants will not be permitted to install anything on evaluators' computers. E. Entries become the property of NJ TSA. |
| EVALUATION: | Evaluation based on 100 points. No interview. |

Webmaster

Pre-Conference Event

2013 Design Brief: News in the 21st Century- The effects of digital media on traditional news business and practice

| | |
|---------------------|---|
| OVERVIEW: | A copy of the design brief can be found at: http://www.tsaweb.org/Themes-and-Problems Delete "Semifinalists will participate in an on-site interview...." |
| | |
| PURPOSE: | No change |
| | |
| ELIGIBILITY: | 1 team of 3-5 members per chapter. No semifinalists. No interview. Winners announced at Awards Ceremony. |
| | |
| TIME LIMITS | A-B. Change date from May 15 to April 2, 2013. Send URL to tsachall@tcnj.edu . Delete C. |
| | |
| PROCEDURE: | B. All questions must be emailed to goeke2@tcnj.edu or ordini@tcnj.edu Delete D-H |
| | |
| REGULATIONS: | Delete I. No interview. |
| | |
| EVALUATION: | Delete B. No interview. Evaluation based on 100 points. URL's MUST be emailed to Alison Goeke, State Advisor (tsachall@tcnj.edu) by 12 midnight EST April 2, 2013. All emails will be time stamped and serve as proof of submitting project on time. Be sure to include ID# & Webmaster Submission in subject line |