**Dear ASPE student challenge participants and sponsors,**

You have successfully registered for the 2019 ASPE Student Challenge so we would like to give you a warm welcome to the event.

This year’s event focus is on Metrology and has been divided into 3 phases: Design, Construction and Measurement.   The metrology phase will occur during the annual meeting where teams are asked to measure samples provided by NIST and will be assessed on accuracy, linearity and repeatability.

Here is the current plan:

1. From Aug 30- Sept 20 (Design Phase): Students will work designing their devices using only the 2019 BOM, CAD parts and example programs.  You can find the information at <https://github.com/ASPE-student-challenge/2019> (let us know if you want to upload changes so we can send you an invitation to the project). No later than Sept 20, teams should submit their design with their BOM of parts required (include in the design submission your address, and a phone number, for shipping the hardware).  By Set 27th, the Judges will provide feedback and the score for the design phase.  A detailed score chart is available on the website under [Rubric](http://aspe.net/wp-content/uploads/sites/35/2019/08/Grading-Rubric-ASPE-Student-Challenge-2019_8_28_19.docx).

1. Oct 4st -Oct28nd (Construction Phase): Using the parts supplied, students will assemble and control the hardware so they have a functional device that can be used for phase 3.  This will include a computer program to help automate the measurement and data acquisition process.   Please note that the capacitance sensor will only be provided for phase 3 on Oct 28th.

1. Oct 28th (Metrology Phase): On Monday Oct 28th, the students will be given a Capacitance probe that can be incorporated into and used to calibrate their instrument and will be asked to use the mechanism to measure various mass samples and report the results as described in the [Rubric](http://aspe.net/wp-content/uploads/sites/35/2019/08/Grading-Rubric-ASPE-Student-Challenge-2019_8_28_19.docx).
2. Oct 29th (Judging): Presentations to Judges during our Tuesday’s lunch.

Please let us know if you have any questions or post them at our [FORUM](http://aspe.net/forums/forum/student-teams/) (please login before clicking the link) and check the previous postings as we will be updating information as it becomes available.  You may also contact the committee to arrange a conference call if this may be of further help.

Please note that teams should balance their workload to avoid spending more than 10 hours/each during the design and construction phases and 4 hours during the metrology phase.  We are asking you to limit your effort to encourage team participation and ensuring the event will not interfere with your normal school activities and the conference tutorials.

Thank you very much,

2019 ASPE Student Challenge Organizing Committee.