Requirements for Modules

## General requirements

* Modules can address any concept within the range of STEM, but will ideally connect to concepts or applications within chemical engineering
* Modules can take the form of discussions, demonstrations, or experiments
* Modules will have both an experiential component and a written component
* Winners of past AIChE K-12 STEM Outreach Competitions must submit an entirely new module
* Other past participants are encouraged to improve upon their submissions or submit a new module. We expect to receive more submissions than in previous years and you will not be guaranteed entry with a submission of the same quality/content from previous years.
* Preference will be given to unique modules that have not already been exhibited. We encourage you to reference our module database/listing of past modules.

## Experiential component requirements

* Clear connection to at least one concept taught in K-12 STEM courses
* Clearly defined objectives and expectations for student involvement
* Experiential component of module, or an abbreviated version of the full module, must be able to be delivered within 15-20 minutes
* Modules must be feasible (mobile, accessible, and low cost) for K-12 educators to use in classrooms (or at home!)
  + All module equipment and supplies must cost less than $100
  + Competitors are further encouraged to use only those materials which are easily accessible to the general public and can be purchased at a grocery store or hobby store (i.e. household chemicals)
  + Safety **must** be a priority in the design of the module as well, taking into consideration that it may be duplicated by K-12 educators or students in their own classrooms/homes.
* Competitors must implement all proper safety precautions
* Entrants are required to submit a video demonstration of their module along with their competition entry, meeting the following requirements:
  + MP4 is preferred
  + The video should be able to be shown to K-12 students as a demonstration of the module and be fully stand-alone. It should demonstrate the topic and provide an explanation of all STEM related material. This should be engaging, interesting, and presented as if you were teaching a class.

## Written component requirements

IMPORTANT - All written components will be shared with outside audiences and are ultimately a reflection of AIChE. It is expected that all written components are free of spelling, grammatical, and formatting errors upon submission. If you do not follow formatting instructions specified below, or if your submission includes any spelling and grammatical errors, your entry may be subject to disqualification.

* Safety Assessment Form
  + Required submission format: Word doc (.doc or .docx extension)
  + Upload the completed Safety Assessment Form as evidence of your safety analysis addressing identification and mitigation of safety risks
* Handout #1:
  + Required submission format: Word doc (.doc or .docx extension)
  + The audience/recipient of this handout will be K-12 educators, parents, and AIChE community members who could incorporate this module into their K-12 Outreach initiatives.
  + Upload a completed Handout #1 template not to exceed 5 pages containing information about the full module, replacing the blue text on the template with the information pertaining to your module. The word doc must include the objective(s), materials, procedure, and theory behind the module. (The module must be in English, but translated versions are accepted in addition).
* Handout #2:
  + Required submission format: Word doc (.doc or .docx extension)
  + The audience/recipient of this handout will the K-12 students in the age group your module is best suited for and this handout will be provided to K-12 students to take home and further learn from.
  + Upload a completed Handout #2 template, replacing the blue text on the template with the information pertaining to your module, which highlights the K-12 concepts addressed in the module.
* Institute Policies Attestation Form:
  + Required submission format: PDF
  + This document is for internal purposes only.
  + Upload a completed Institute Policies Attestation form, including all required signatures.