



AEI International Student Design Competition Competition Program

Addendum 2020

The Challenges

The competition will challenge the student teams to address the design, integration, and construction issues associated with this project. Please keep in mind that the Challenges presented have been created for the sole purpose of the International Student Design Competition. Submissions should address the following challenges:

1. **WELNESS HUB.** Virginia Tech plans to combine health, wellness, and education with the historic ambiance of the 1924 War Memorial Hall building. As part of the completed interdisciplinary building, this challenge engages student teams to create a student wellness hub based in War Memorial Hall. The goal of this new area is to provide a recreational area for students to incorporate health and wellness activities into their everyday scholastic routines.

For this challenge, student teams are asked to provide appropriate architectural programming and design the new wellness hub within the existing (1924) War Memorial Hall to meet the goals of the campus. In order to provide the necessary spatial requirements for the wellness hub, the student team is required to relocate at least 50% of the existing square footage within the original (1924) War Memorial Hall to a new location within the existing site. Some examples of spaces that the client has requested include a knowledge commons that can support lectures or presentations, a relaxation zone for meditation or silent reflection, and a health food store/snack bar. The design must also provide supporting spaces and offices for the wellness hub staff. The list provided above is an example of required spaces. Other spaces may be incorporated into the design as the student team sees fit.

2. **BUILDING ENVELOPE.** The Virginia Tech War Memorial Hall was originally built in 1924 with an addition in 1972. The original 1924 facade and newer 1972 addition are connected physically, but not performatively. And, the building as a whole lacks a cohesive envelope.

The first part of the challenge is to integrate the thermal, luminous, and ventilation systems that comprise the envelope of both the 1972 building and the original historical structure. The student team should focus on how the thermal envelope can be designed to exceed the energy performance of the building by at least 30%. They should also utilize daylight as a primary source of lighting to the greatest extent possible, ensuring that 40% of all regularly occupied areas have access to daylighting that can be controlled for solar glare. Finally, the design should use natural ventilation strategies using ASHRAE 62.1-2013 Natural Ventilation Procedure and demonstrate that every regularly occupied office or classroom space has operable windows with access to outdoor air.

The second part of the challenge is to design a coherent aesthetic for the 1972 structure that celebrates both the historical legacy of the 1924 historic structure and the modern amenities



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within the facility. In other words, how does the envelope of the 1972 structure relate to and connect with the original historic façade of War Memorial Hall?

Building Information

Virginia Tech Wellness Improvements – War Memorial Hall, Blacksburg, Virginia
The historic renovation of War Memorial Hall on Virginia Tech’s campus in Blacksburg includes the original hall built in 1924 and the addition from 1972. War Memorial Hall is sited on a prominent campus location fronting the Drill Field. War Memorial Hall is home to Virginia Tech’s Recreational Sports department as well as one of the campus’ indoor recreational centers. The renovated facility will serve the university’s student wellness initiatives and departments.

For the purpose of the AEI Student Design Competition, the target total building budget will be \$45 million. Costs associated with the Challenges listed above should be budgeted separately and included as add alternates.

A document with applicable codes will be provided to registered teams with the other project documents.

Competition Timeline

Student Team Registration begins	Tuesday, August 20, 2019
Student Team Registration ends	Wednesday, January 8, 2020 1:00pm EST
Deadline for Written Submissions	Monday, February 17, 2020 1:00pm EST
Notify Finalist Teams	Monday, March 2, 2020
Finalist Presentations	Thursday, April 2, 2020

All teams may continue to work on their projects after the written submission in anticipation of possible selection as a finalist team and in preparation for the finalist presentations. The architectural engineering programs are encouraged to have competing students present their projects to their peers and faculty. It is also encouraged that they receive comments and suggestions from these individuals at multiple instances throughout the project.

Finalist presentations will occur on Thursday, April 2, 2020 in Cincinnati, Ohio. The event will be broadcast via webcast, and finalist submissions will be published on the competition website.