2021 Student Design Competition

COMPETITION GUIDELINES

INTRODUCTION: The Midwest Student Design Competition is intended to promote “real world and hands on” design experience for students interested in pursuing an education and/or career in water/wastewater engineering and sciences field. This year, the Midwest Student Design Competition will be virtually on Wednesday, April 28, 2021. This is a unique opportunity for students at the college level to demonstrate their engineering, environmental or biological science skills and practices by researching and preparing a design for a water quality-based project and presenting their project to water industry professionals.

There are three categories of Student Design Competitions available for students:

- WEF Wastewater Design
- WEF Environmental Design
- Global Water Stewardship

WEF Student Design Competition: The Water Environment Federation (WEF) categories at the Midwest Student Design Competition, feed into the national WEF competition at the WEFTEC conference in October of 2021. The WEF competition requires teams of students to design and present a program meeting the requirements of a problem statement, developed by the students. There are two categories of the WEF competition; a conventional Wastewater Design category which includes traditional wastewater design projects and an Environmental Design category which would include contemporary engineering design topics like sustainability, water reuse, wetland construction and Engineers Without Borders projects.

The WEF Student Design Competition is designed to be a function of the WEF Student Chapters program however being part of a WEF Student Chapter is not required to compete at the Midwest Student Design Competition. However, the winning teams will have to ultimately be WEF student members to participate in the national WEF competition at the WEFTEC conference.

Global Water Stewardship Student Design Competition: The Global Water Stewardship (GWS) category at the Midwest Student Design Competition requires teams of students to design and present a project meeting the requirements of the real-life problem statement for the town of Samara, Costa Rica titled “Global Water Stewardship: Samara District, Costa Rica”. Winning teams will receive a stipend of up to $1,000/student for travel and lodging expenses to accompany GWS representatives on their August fact-finding trip to Costa Rica and to present their project to local community representatives.

WORKLOAD: The project should include a problem statement, a development of alternatives and a recommended solution. The depth of the effort should be comparable to preliminary design. A key criterion in the judging of the competition is the manner and level of effort spent in evaluating the alternatives. Students are expected to work with little assistance from an advisor and/or professor, and the students are expected to work together as a team to find a solution to their problem. Students may use whatever references or resources they choose.
**REQUIREMENTS:** Teams may consist of more than four members, but only four students may present at the competition. Student teams will compete through oral presentations, in powerpoint format. Each presentation will be 20 minutes followed by a 10-minute question and answer period.

The winning teams of the WEF competition categories will be required to submit a design notebook complying with the WEF competition requirements set forth in the WEF design competition entry guidelines. These guidelines will be provided to competitors when published, usually in May.

**TIMELINE:** **January 31, 2021:** Submittal of the Entry Form for the 2021 Student Design Competition is due. Submit to Mike Holland at mholland@kishwr.com or online at www.cswea.org/students-yps/design-competition

**April 28, 2021:** CSWEA Design Competition will be held virtually.

**SELECTION:** Representatives from wastewater industry will judge the design competition. The results of the competition will be issued to participants at the conclusion of the competition.

**AWARDS:**

**WEF Competition Categories:** The winning teams (max. of 4 members) from each category of the WEF competition will receive free registration from WEF to the WEFTEC conference in Chicago, Illinois (October 16 - 20, 2021 – COVID Pending). Stipends for travel and lodging expenses to Chicago vary depending on the student’s respective WEF Member Association (MA).

Prizes for the winning team at the national WEFTEC conference will vary depending on sponsorship opportunities. Monetary awards typically provided by WEF for the top 4 design teams are: 1<sup>st</sup> place $2,500, 2<sup>nd</sup> place $1,500, 3<sup>rd</sup> place $1,000, 4<sup>th</sup> place $750.

**Global Water Stewardship Category:** The winning team (max. of 4 members) from the Global Water Stewardship category will receive a travel and lodging stipend of up to $1,000/student (which is typically sufficient to cover travel and lodging) to accompany the next GWS team trip to Costa Rica for site analysis and investigations.

**FOR ADDITIONAL INFORMATION, CONTACT:**

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