

2023 ASC OPEN MECHANICAL

Pre-problem Statement and Information Package

Presented By:



Introduction

Welcome Students and Teaching Professionals to the 2023 ASC Student Competition!

The Northern California Mechanical Contractors Association (NCMCA) and Performance Mechanical, Inc (PMI) are proud to be the sponsors of the Open Competition Mechanical Problem at the 2023 ASC event in Sparks, NV.

The objective of this problem is to enhance the student's experience in the everyday occurrences of the mechanical industry. This year's problem will expose students to tasks and conditions that a mechanical contractor's project team would experience from day to day. These tasks will include project team construction, planning and the development of an execution plan, scheduling, safety planning, quality control planning, review of specifications, review and understanding of scopes of work, pricing and understanding of mechanical drawings.

This competition is an invaluable tool for your career development. NCMCA/PMI hopes every team benefit from this 'real-life' experience. There are many dynamic elements to every project. Keep an open mind to the challenges that are presented and learn from our experiences as well. At the end of the day, only three teams are awarded, and recognized at the Saturday Awards Ceremony. A best presenter will also be recognized during Saturday's awards ceremony. Regardless of your final overall placement, each competitor is truly a winner when you combine the experience of the competition with the industry exposure you gain throughout the event.

All teams are to provide actual resumes of each student along with a photograph to PMI by January 27, 2023. All resumes shall be in the same format, font, organizational structure, etc.

Problem Premise & Deliverables

Your project team works for Performance Mechanical, Inc. You are assigned to one of PMI's most valuable clients.

The client has approached you with a RFP for a project that will be integral to improving their terminal operations and profitability. The client has decided that in the interest of fast-tracking their project they will need an extensive and well-thought-out proposal from your company. The client has requested pricing to complete the project as well as a detailed execution plan and schedule to help them make the best decision as to which contractor will get their project completed on-time and with minimal impacts to an active fuel storage terminal with tanker truck traffic on an around-the-clock basis, every day of the year.

The project team needs to develop their proposal and present it to their company's executive management team during a bid review meeting. The intent of this bid review meeting is to discuss in-detail how the project team developed their proposed cost, the logic behind their proposed schedule and the thought process behind their detailed execution plan before the proposal is presented to the client.

Student Prerequisites

Successful teams and their members will need to exhibit the following skills and expertise:

- Team building and problem-solving techniques
- Oral and written communication skills
- Project execution
- Scheduling
- Estimating and pricing
- Risk analysis
- Quality management
- Safety planning
- Site logistics

Competition Rules

Without exception, the rules for the competition will be governed by the following guidelines:

- Adhere to the approved and posted ASC 2023 Competition Rules.
- Additional competition rules will be reviewed at the Competition Kick-off Conference held on the morning of Thursday, February 9th, 2023 at 6:00 AM in PMI/NCMCA's assigned competition room.
- Participation will be limited to twelve teams for this problem. Participation will be on a first come, first served basis. In the event that the maximum of twelve teams is not met a school may register a second team to participate. However, if a twelfth team registers before the deadline the second team will be removed. The intention is to provide opportunity to twelve different schools to compete.
- Internet use is allowed. Hotel internet bandwidth is limited. Bringing an alternate source is recommended.
- The following software will be **required** for problem solving: Navisworks Freedom, Primavera P6 or Microsoft Projects, Microsoft Excel, Microsoft Word and Microsoft PowerPoint.
- Disassembly/removal of furniture in hotel rooms will not be allowed. Violation of this rule will result in fines.

Scoring

Scoring will be based upon two primary components: Team presentation and Team binder deliverables. Each will carry a total possible score of 100 points. The scoring of each component will be broken down as follows:

Binder: 100 Pts

- Execution Plan: 30 pts
- Schedule: 20 Pts
- Pricing: 15 Pts
- Safety Plan: 10 Pts
- Quality Plan: 10 Pts
- Curve Balls: 15 Points

Presentation: 100 Pts

- Power point: 40 Pts
- Team participation: 15 Pts
- Teams overall oral presentation skills: 15 Pts
- Teams understanding and knowledge of the project: 15 Pts
- Questions and Answer session: 15 Pts

Timeline of Events

Thursday, February 9, 2023 – Competition Kickoff with Deliverables due in evening at time TBD

Friday, February 10, 2023 – Team Presentations & Problem Recap

Saturday, February 11, 2023 – Career Fair & Awards Ceremony

Contact Information

Good luck! Any questions can be directed to the PMI/NCMCA representative below.

Contact: Rick Carpenter

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