

Course Name: Gearboxes and Motors

Hours to complete: 0.75

CEUs: 0.10

Description:

In this course we will discuss the most used motors in our industry, learn how to use basic faults and failures for troubleshooting motors. Additionally, we will identify various couplings and gearboxes and how to install and align them.

Needs analysis:

With the growth in amusements globally and accidents on the rise, there is an international demand for amusement safety training in many nations. AIMS online courses through AIMSconnectED, an LMS will fill the need of bringing education worldwide with the goal improving amusement safety globally.

Ride owners/operators, maintenance, inspectors and other amusement personnel require continuing education and training for maintaining their certification to work in their respective positions per AHJ regulations and/ or company policies. Also, there are individuals working in the amusement industry that desire professional development to remain current on latest industry trends, standards and best practices applicable to their day-to-day job duties as it relates to their role.

AIMS requires certificate holders to obtain 40 hours continuing education hours to renew their training every two years. Certificate holders can attend the AIMS Safety Seminar to renew or participate in online learning modules to obtain continuing education units to remain current.

Other certificate programs in the amusement industry require contact hours to renew their certification programs. AIMS programs are acceptable professional development, contact hours that can satisfy this requirement.

Legislation and regulations require professional development, education and training for inspectors in the amusement industry. There are limited options that provide this specified education apart from on-the-job training and manufacturer training when a ride is initially commissioned. Currently contact hours and continuing education is only available in face to face (live) instruction seminars and courses.

Evaluation:

Successful course completion includes:

- Review of the module content in its entirety
- Successful completion of the module quiz
- Completion of the module course evaluation survey.

Upon successful completion of all modules, participants must complete the course survey and then will have access to download their credentials and any associated CEUs.

Outcomes:

Participants in this course will

1. Discuss the most used motors in the industry
2. Review basic faults and failures for troubleshooting motors
3. Identify types of couplings and gearboxes
4. Describe how to install and align couplings and gearboxes

Facility / equipment requirements:

Trainer/ presenter:

Classroom, lapel mic, easel pad, marker, AIMS visual aid template for presentation, LCD projector, - camera crew for recording, handheld mics as backup, data storage drives.

Designer:

For developing the course: AIMS templates for presentations, videographers, easel pads, markers, materials (bookends deck in materials for presentation). An LMS platform.

Student materials:

Access to a computer or mobile device. Stable high speed Internet connection.

Instructional methods:

Lecture, presentation and demonstration by real examples using images and/or videos.

Assessment methods:

True and false quizzes, multiple choice questions and answers in content exercises.

Learning styles:

Auditory, visual presentations, and reading/writing,

Program design lesson planning:

- Information described below in the lesson design references the content on page one of the **lesson plan document** and how it is outlined to be instructed for the program.
- The **outcomes** numbered below by lesson are the outcomes planned for each lesson in this program.
- Instruction **Methods** and **Assessments** to achieve program outcomes in each lesson are described below for this program.
- **Learning styles** used during instruction for each lesson are listed below for this program.

Lesson	Outcomes	Instructional Methods	Assessment Methods	Learning Styles
Module 1	1, 2, 3, 4	Presentation, lecture, discussion Q&A, scenarios, with examples	True/False and Multiple Choice Quiz	

