CORE CONCEPT

Science Centre and Planetarium Management Course: Interactive Exhibits, STEM and Visitor Operations

Science Centre and Planetarium Management Course: Interactive Exhibits, STEM and Visitor Operations

Introduction:

Science centre and planetarium management, covering interactive exhibits, STEM and visitor operations, is a 1-week course for exhibit, dome theatre, learning and visitor service teams that ends with a Science Centre Exhibit, Dome and Learning Operations Plan. Centres lose repeat visits and school bookings when hands-on exhibits sit broken, dome schedules repeat old films, workshops drift from curricula and nobody can show what visitors learned. Nominees already manage galleries, shows, school programmes or front-of-house and learn through case studies on exhibit downtime logs, dome occupancy and visitor surveys. CoreConcept Training Center delivers this science centre and planetarium management course.

Course Objectives:

- Assess a science centre or planetarium's audience mix, gallery condition, dome occupancy and earned income to set operating priorities
- Develop interactive exhibits through concept briefs, rapid prototyping, visitor testing and robust fabrication specifications
- Programme a planetarium dome with live sky talks, fulldome films and special events matched to audience segments and seat capacity
- Design school STEM workshops, outreach visits and teacher packs aligned to curriculum stages and inquiry-based learning
- Plan memberships, group sales, venue hire and retail to grow earned income while managing visitor flow on peak days
- Evaluate learning impact with front-end, formative and summative evaluation and present findings in an operations plan

Target Audience:

- Exhibit development and workshop functions responsible for designing, building and repairing hands-on galleries
- Planetarium and dome theatre functions accountable for show scheduling, live presentations and projection systems
- Learning and outreach functions that plan school visits, STEM workshops and teacher partnerships
- Visitor operations functions that manage admissions, floor staff, capacity and front-of-house service
- Commercial and membership functions in charge of passes, group bookings, venue hire and retail income
- Centre leadership functions accountable for annual plans, budgets and reporting to boards and funders

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Course Outline:

Day 1: Science Centre Landscape and Venue Baseline Review

- Science Centre, Discovery Centre and Planetarium Operating Model Comparison
- ASTC, Ecsite and ASPAC Network Practice Benchmarks
- Audience Segmentation Across Schools, Families, Teenagers and Adults
- Gallery Condition Audit Using Exhibit Downtime Logs
- Dome Occupancy, Visitor Numbers and Earned Income Baseline

Day 2: Interactive Exhibit Development and Fulldome Planetarium Systems

- Hands-On Exhibit Concept Brief and Learning Goal Statement
- Rapid Prototyping and Visitor Testing of Exhibit Mock-Ups
- Exhibit Fabrication Specification for Durability and Accessibility
- Fulldome Digital Projection, Edge Blending and Dome Surface Basics
- International Planetarium Society Practice for Show Production and Licensing

Day 3: Dome Show Programming, School STEM Learning and Visitor Flow

- Planetarium Show Calendar Mixing Live Sky Talks and Films
- Live Presenter Script and Audience Question Handling Technique
- Curriculum-Linked STEM Workshop Design With Inquiry-Based Learning
- School Outreach Kits, Teacher Packs and Booking Workflow
- Visitor Flow Mapping With Timed Entry and Gallery Capacity

Day 4: Exhibit Upkeep, Earned Income and Learning Impact Risks

- Preventive Exhibit Maintenance Schedule and Spare Parts Register
- Projector, Lamp and Dome Lighting Fault Response Routine
- Membership Tiers, Group Sales and Venue Hire Pricing Model
- Front-End, Formative and Summative Learning Evaluation Methods
- Visitor Observation, Dwell Time Tracking and Exit Survey Design

Day 5: Case Study and the Exhibit, Dome and Learning Operations Plan

- Case Venue Briefing With Downtime, Occupancy and Survey Data
- Exhibit Renewal and Maintenance Priorities for the Case Galleries
- Twelve-Month Dome Show and School Workshop Calendar Build
- Earned Income and Learning Impact Scorecard for the Case Venue
- Science Centre Exhibit, Dome and Learning Operations Plan Completion

Skills You Will Gain:

- Interactive Exhibit Prototyping
- Fulldome Show Scheduling
- Live Sky Presentation
- STEM Workshop Design
- Exhibit Maintenance Planning
- Membership and Venue Hire Pricing
- Visitor Flow Analysis
- Learning Impact Evaluation

Why Attend This Course:

- Deliver a Science Centre Exhibit, Dome and Learning Operations Plan to the centre director and the board for approval
- Decide which exhibits to repair, rebuild or retire and which dome shows to keep, replace or run live
- Avoid dead exhibits, half-empty dome sessions and cancelled school bookings caused by unplanned upkeep and stale programming
- Share exhibit test protocols, presenter scripts, workshop templates and evaluation forms with floor, dome and learning staff

Conclusion:

Back at work, the participant gives the centre director, the learning lead and the commercial manager a Science Centre Exhibit, Dome and Learning Operations Plan with exhibit renewal priorities, a dome show and workshop calendar, maintenance routines, income targets and a learning impact scorecard. Leadership uses it to approve the next season's gallery budget, show licences, school offers and membership pricing. After the first term under the plan, the team should review exhibit uptime, dome occupancy, school bookings and evaluation findings, then adjust the calendar and maintenance cycle.

Frequently Asked Questions FAQ:

What should participants know before the science centre and planetarium management course?

Participants should already manage galleries, dome shows, school programmes, visitor services or commercial income in a science centre, discovery centre or planetarium. Bringing anonymised exhibit downtime logs, dome occupancy figures or visitor survey results helps apply the case work to their own venue.

How does science centre and planetarium management differ from a museum collections or theme park operations course?

It focuses on hands-on exhibits, dome shows, STEM learning and visitor flow in centres that teach science through interaction. Museum collections courses cover conserving and documenting objects, and theme park courses cover rides, queues and ride safety, which this course does not address.

Why does learning evaluation matter in science centre and planetarium management?

Evaluation shows funders, schools and boards what visitors actually learned, not just how many came. Front-end, formative and summative studies tell teams which exhibits and shows work, which need redesign and where scarce exhibit and programming budgets should go next.

What do participants take back from the science centre and planetarium management course?

Participants take back a Science Centre Exhibit, Dome and Learning Operations Plan for a case venue, with an exhibit maintenance schedule, a dome show and workshop calendar, an income and pricing model and a learning impact scorecard they can adapt to their own centre.