

MECH 5003 VERTICAL TRANSPORTATION OPERATIONS AND MANAGEMENT

Credit Points 10

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Description The focus in this subject is on integrating the electrical and mechanical elements as part of selecting a suitable vertical transportation system in line with the standards and regulations. In making the selection, students create layouts, use simulation and methods of calculation. Students then determine an appropriate maintenance plan. Students are encouraged to assess their professional development needs given the integration of different engineering disciplines in the context of vertical transportation, as well as to evaluate their performance in group work. Knowledge gained in this subject will benefit students aspiring to careers such as vertical transportation operations, maintenance and service.

School Eng, Design & Built Env

Discipline Mechanical and Industrial Engineering and Technology, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 5 subject

Learning Outcomes

1. Integrate project requirements, standards, regulations and legislation, and a range of vertical transportation factors to design appropriate layouts;
2. Calculate mechanical and electrical requirements appropriate for specific vertical transportation systems;
3. Design maintenance plan according to Design in Safety principles, including expected modifications and work by others;
4. Analyse professional performance and skill development needs.

Subject Content

Human circulation (disabled access)

Human factors (velocity, force)

Types of transportation systems

Walkways and principle components installation

- Vertical Transportation control systems
- Selection of equipment
- Vertical Transportation arrangement, electrical and mechanical components, firefighting lifts and evacuation, layouts
- Legislation and standards
- Vertical Transportation maintenance, modifications, and work by others

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

| Item | Length | Percent | Threshold | Individual/Group Task |
|---------------------|--------------------------------------|---------|-----------|-----------------------|
| Professional Task 1 | Up to 5 pages | 20 | N | Individual |
| Professional Task 2 | 2000-3000 words (including diagrams) | 30 | N | Individual |
| Report | Up to 10 pages | 50 | N | Group |

Teaching Periods