

Engineering Studies

Resource lists—Combined

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Disclaimer

Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the course.

Engineering Studies

COMBINED RESOURCE LISTS

This list is prepared in the following parts:

PART 1: INTRODUCTION/SELECTION PROCESS

PART 2: PRINT RESOURCE LIST

PART 3: WEB RESOURCE LIST

PART 1: INTRODUCTION/SELECTION PROCESS

Selection guidelines

The selection of resources is the responsibility of each school and the following points need to be considered at all times:

- The lists are recommendations only and are not exhaustive. Each school should decide on specific titles for their students in consultation with their school community and sector guidelines.
- Some courses have set texts. Check the current syllabus.
- The recommended resources are to be used to support teaching and learning only and not as a substitute for the syllabus; the syllabus is what is used to develop examination questions and all teaching should be directly linked to the syllabus.
- Any selection process requires the use of the current syllabus. Syllabus documents are subject to changes. Users who download and print copies of a syllabus are responsible for checking for updates. Advice about any changes made is provided through the School Curriculum and Standards Authority communication process.
- The perspectives and views expressed in the resources are not endorsed as such but are provided for classroom discussion and comparison within the context of appropriate teaching and learning activities. Some resources need to be used with sensitivity and care.

Types of resource lists

The following resource lists are provided for this course: Introduction which includes Guidelines, Process, Professional Associations/Suppliers and Journals; Print materials; Web based resources and a combined list for printing.

Selection process

Step 1:

Check the School Curriculum and Standards Authority website to see if you have the current syllabus; check the eCircular to see if any minor changes have been made.

Step 2:

Narrow the choice of resources to match the decisions made by your school. Check the following:

- which stage/s does your school offer – Stage 1, 2 or 3?
- which units are part of this course – for example 1A and 1B, 2A and 2B, 3A and 3B?
- which units are being taught this semester/year?
- what is the focus of the units being taught?
- what are the context/s being taught?
This Engineering Studies course has specialist engineering fields of study; Mechanical, Electronic/electrical and Systems control. Check the syllabus.

Step 3:

Some of these resources may be in your school. Check your library and the relevant learning area library.

Step 4: Check if the course has set texts.

There are no set texts for this course.

The following links will direct you to websites outside the School Curriculum and Standards Authority site. The Authority has no control over the content of materials accessible on the sites that are cross-referenced. It is the responsibility of the user to make decisions about the relevance and accuracy, currency and reliability of information found on these websites. Linking to these sites should not be taken as endorsement of any kind. We cannot guarantee that the links will work all of the time and we have no control over availability of the linked pages. It is your responsibility to check that this information is accurate.

Professional Associations

- Design and Technology Teachers' Assoc. (WA) Inc.
<http://www.dattawa.org/>
- Engineers Australia, Western Australian Division
<http://www.wa.engineersaustralia.org.au/>
West Perth : Engineers Australia - Western Australia Division, 2004–2011

State Courses and Documents

Relevant information can be found in interstate curriculum. For example:

- NSW HSC Online [website]
<http://hsc.csu.edu.au/>
Sydney: NSW HSC Online, 2000-ENGINEERING STUDIES COURSE OF STUDY
- INTAD [website]: Industrial Technology and Design Teachers' Association.
<http://www.intad.asn.au>
North Tamborine, Qld: The Association, 2003–2011

PART 2: PRINT RESOURCE LIST

All resources for this WACE Course are recommendations only and are not exhaustive. Each school should decide on specific titles for their students in consultation with their school community and sector guidelines.

- HOLDEN, Ray Holden, R. (1991) *A guide to engineering mechanics*, Marrickville NSW. Science Press. ISBN 0-85583-175-8
- WICKERT, J. (2004) *An introduction to mechanical engineering*, Belmont, California: Thomson ISBN 0-534-39132-X
- SCHLYDER, D. (2001) *Engineering: an industry study for secondary schools* Toowoomba: PCS Publications. ISBN 1-87613-516-6
- HAIK, Y. (2003) *Engineering design process*, South Melbourne: Thomson Brooks/Cole. ISBN 0-534-38014-X
- MOAVENI, S. (2005) *Engineering fundamentals: an introduction to engineering* Toronto: Thomson. ISBN 0-534-42459-7
- IVANOFF, V. (1996) *Engineering Mechanics: an introduction to statics, dynamics and strength of materials*, North Ryde NSW: McGraw-Hill Higher Education ISBN 0074702394
- BOLTON, W. (2001) *Engineering science*, Oxford: Newness. ISBN 0-7506-5259-4
- ROCHFORD, J. (2011) *Engineering studies: a student's workbook*, Gosford, NSW: K.J.S. ISBN: 978-0-9579630-7-8
- ROCHFORD, J. (2009) *Engineering studies communication: a student's workbook*, Gosford, NSW: K.J.S. ISBN: 978-0-9579630-1-6
- COPELAND, P. L. (2000) *Engineering studies: the definitive guide*. Vol1, the preliminary course, Allawah, NSW: Anno Domini. ISBN 0-646-39459-2
- COPELAND, P. L. (2001) *Engineering studies: the definitive guide*. Vol2, the HSC course Allawah, NSW: Anno Domini, 2001. ISBN 0-9578770-0-5
- METCALFE, Peter (2004) *Excel senior high school engineering studies*, Glebe, NSW: Pascal. ISBN 9781741250510
- BOLTON, W. (2000) *Materials for Engineering*, Oxford: Newness. ISBN 0-7506-4855-4
- SNEDDEN, R. (2001) *Materials technology*, Oxford: Heinemann Library. ISBN 0-431-12103-6

PART 3: WEB RESOURCE LIST

Building big: bridges, domes, skyscrapers, dams, tunnels

<http://www.pbs.org/wgbh/buildingbig/>

Boston, Mass.: WGBH Educational Foundation, 2000

CSIRO Manufacturing & Infrastructure Technology [website]

<http://www.cmit.csiro.au/>

Clayton, Vic.: CSIRO Australia, 2002

Crocodile clips educational simulation software

<http://www.crocodile-clips.com/>

UK 2009

Education resources [website]: case studies/Design Council UK

<http://www.designcouncil.info/educationresources/studies/index.html>

London: Design Council, 2003

Educational resources, learning materials

<http://www.merlot.org/merlot/index.htm>

California State University, 1997–2011

eFunda [website] : engineering fundamentals

<http://www.efunda.com/home.cfm>

Sunnyvale, Calif.: eFunda, 1999

Electronics parts supply

<http://www.wiltronics.com.au/catalogue/>

Wiltronics Research Pty Ltd: Victoria, 2011

Electronics parts supply

<http://www.altronics.com.au/>

Altronics Pty Ltd: Perth WA, 1976–2011

Engineering Toolbox

<http://www.engineeringtoolbox.com/>

Complete range of information and sources of knowledge in all fields of engineering

Electronics, systems and control teaching and learning resources

<http://atschool.eduweb.co.uk/trinity/elec2.html>

UK Technology Education Centre

Manufacturing Technologies – online series of product manufacturing

<http://manufacturing.stanford.edu/>

Stanford University, 2010

Metals – non-ferrous types, sections and supply

<http://www.australwright.com.au/datasheets/overview.html>

Austral Wright Metals Pty Ltd: 2000–2006

Metals Testing – explanations of hardness and other materials testing

http://www.calce.umd.edu/TSFA/Hardness_ad.htm

University of Maryland: 2011

Steel types, sections and supply
<http://www.midaliasteel.com/downloadPricelist.php>
Midalia Steel: Perth, 2008

Standards for manufacturing and construction – Australian Standards
<http://www.standards.org.au/>
Standards Australia: Sydney NSW, 2010

Technology educational resources
<http://intellecta.net/>
Intellecta Technologies Pty Ltd: South Australia 2011

Teach engineering [website]: resources for K-12
<http://www.teachengineering.com/index.php>
Boulder, Colo.: Teach Engineering

Technology in Australia 1788–1988 [website]: a condensed history of Australian technological invention.
<http://www.austehc.unimelb.edu.au/tia/>
[Melbourne]: Australian Academy of Technological Science and Engineering, 2000

Technology Resources – UK
<http://www.technologystudent.com/>
V. Ryan, 2002–2011

The Design Process Project [website]
<http://www.eng.fsu.edu/~haik/design>
Tallahassee Fl.: Florida A&M University, 2001

Virtual laboratory [website]: a virtual engineering-science laboratory course/Michael Karweit
<http://www.jhu.edu/~virtlab/virtlab.html>
Baltimore, Md.: Johns Hopkins University, 2000

Vocational Information Centre Engineering fields, careers, different resources
<http://www.khake.com/index.html>
Vocational Information Centre 1999–2010