

How can the Engineering Subject Centre help you in your role?

- an introduction to the Subject Centre and its resources.

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- Academic Advisor



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How can the Engineering Subject Centre help you in your role?

- What is the Higher Education Academy?
- What is the Engineering Subject Centre?
- Some background to the Centre
- Specific resources – large group teaching
- Other examples of the Centre's activities, resources, funding opportunities....

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The Higher Education Academy

- Formed in May 2004, from a merger of the Institute for Learning and Teaching in Higher Education (ILTHE), the Learning and Teaching Support Network (LTSN), and the TQEF National Co-ordination Team (NCT)
- 24 subject centres located in universities across the UK form the Subject Network of the Academy, with central office in York
- Funded by grants from the four UK funding bodies, subscriptions from higher education institutions, and grant and contract income for specific initiatives.
- See: <http://www.heacademy.ac.uk/>

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What is the Engineering Subject Centre?



- Launched in November 2004, from the former LTSN Engineering
- One of the 24 subject centres, each covering a given discipline
- Based at Loughborough University
- Employs 13 staff (9 FTE)
- Complemented by 9 Associates
- Funded until July 2009

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What does the Engineering Subject Centre provide?



- Networking
- Good practices in Learning and Teaching
- Knowledge brokerage
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- Enhancing the student experience
- Working in partnership with the engineering community
- Developing new resources
- Pedagogy and Research in engineering education
- Staff Accreditation and Professional Development

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Networking – stakeholders, the wider UK and international communities

- Working with the Centre's stakeholders:
 - Professional bodies, national/international networks, other subject centres and the HE Academy, generic organisations, students, teaching academics, and academic support staff.
- The Engineering HE Community, covering England, Scotland, Wales and Northern Ireland:
 - ~250 Departments at over 100 HE Institutions
- Departmental Contacts:
 - >90% Departments at 90% HE Institutions
- Mailing lists:
 - 1200 on mailing list
 - 780 on engineering JISmail list

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Learning and Teaching

- Promoting awareness of good practice, innovation, awards, funded projects:
http://www.engsc.ac.uk/an/fund_projects/index.asp
- Effective communication:
 - E-Bulletin, “translate” newsletter, direct mailings, news and events via the website
- Departmental Contacts:
 - Visits to departments, meetings with Learning and Teaching groups, facilitating discussion groups, organising events inc. Workshops.
<http://www.engsc.ac.uk/an/contacts/index.asp>



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Resources in Learning and Teaching

- Accessible through our website, as downloads and in published formats:
 - Educational resources held in our own and others' databases
 - Resources to use in teaching with students
[\[http://www.intute.ac.uk/sciences/engineering/\]](http://www.intute.ac.uk/sciences/engineering/)
- Research in engineering pedagogy:
 - Commissioning, promoting, engaging with research
- Journal in Engineering Education since 2006
[\[http://www.engsc.ac.uk/journal/\]](http://www.engsc.ac.uk/journal/)
- Centres of Excellence in Teaching and Learning (CETLs):
 - <http://www.engsc.ac.uk/an/cetl/index.asp>
- Our Enquiry Service



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Website

www.engsc.ac.uk

- Key communications medium
- ~500,000 hits per year
 - News & Events
 - Activities and Networks
 - Educational Resources
 - Journal
 - About the Centre
 - HE in FE
 - The Common Room



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Large Group Teaching - background

- What is “Large Group Teaching?”
 - Defining this at City
- What is the purpose of teaching to large groups?
- Options:
 - Didactic delivery (heap and hope)
 - Multiple teach
 - Use of tutor groups
 - Use of VLEs
- Benefits/limitations

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Large Group Teaching – challenges, approaches

- Student engagement/participation
- Students’ attention span
- Voting systems
- “Buzz” groups
- Pyramid thinking/sharing
- Problem/Enquiry-based Learning (PBL/EBL)
- Feedback

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Large Group Teaching – recommended resources

- Seminal texts:
 - “53 Interesting Things to Do in Your Lectures (interesting ways to teach series)”. Gibbs, G. (1984), Technical & Educational Services Ltd. ISBN 978-0947885007
 - “53 Problems with Large Classes: Making the Best of a Bad Job”. Habeshaw, S., Gibbs, G., Habeshaw, T. (1993), Technical & Educational Services Ltd. ISBN 0947885706
 - “Teaching large classes in higher education”. Ed. Gibbs, G., Jenkins, A. (1992), Routledge. ISBN 0-7494-0600-3

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Large Group Teaching – other resources

- Supportive/general texts:

“A Handbook for Teaching and Learning in Higher Education: Enhancing Academic Practice”, 2nd edition. Fry, H., Ketteridge, S., Marshall, S. (ed.), (2002), Routledge. ISBN: 978-0749437992

“The Lecturer’s Toolkit”, 3rd (Rev.) edition. Race, P., (2006), Routledge. ISBN: 978-0415403825

Funding Opportunities, Awards, Reviews

- Funding Opportunities

- Mini-Projects - £3,500
- Special Interest Groups - £1,500



- Engineering Subject Centre Awards

- Teaching Awards
- Student Awards



- Reviews

- Book reviews
- Software reviews

<http://www.engsc.ac.uk/us/fundopps/index.asp>

Current Activity – issues in Learning & Teaching

<http://www.engsc.ac.uk/er/resources/index.asp>

- Assessment and feedback
- CDIO Initiative
- e-Learning
- Employability
- Engineering Maths and Statistics
- Enterprise and Entrepreneurship
- Ethics
- Foundation Degrees
- Internationalisation
- Key Skills
- Learning and Teaching Theory
- Personal Development Planning (PDP)
- Supporting Academic Staff (SAS)
- Student Retention and Motivation
- Sustainable Development
- Widening Participation
- Working with Disabled Students
- External Examining
- Linking Research and Teaching
- Professional Standards
- Work-Based Learning
- Employer Engagement
- 14 – 19 Diplomas

The role of the Centre is two-fold:

- Providing resources and facilitating activities in Learning, Teaching and Assessment
 - Awareness of and participation in new themes/areas of activity in Learning, Teaching and Assessment (LTA)
- Raising the competence and confidence amongst teaching staff in dealing with issues in LTA.
 - Discipline-based opportunities for the professional development of staff in HE
 - Events, support, recognition and reward

Working with other cognate Subject Centres

- UK Centre for Materials Education (UKCME)
[\[http://www.materials.ac.uk/\]](http://www.materials.ac.uk/)
- The Centre for Education in the Built Environment (CEBE)
[\[http://www.cebe.heacademy.ac.uk/\]](http://www.cebe.heacademy.ac.uk/)
- Information and Computer Sciences (ICS)
[\[http://www.ics.heacademy.ac.uk/\]](http://www.ics.heacademy.ac.uk/)
- Physical Sciences Centre
[\[http://www.heacademy.ac.uk/physsci/\]](http://www.heacademy.ac.uk/physsci/)
- Maths, Stats., and OR (MSOR)
[\[http://www.mathstore.ac.uk/\]](http://www.mathstore.ac.uk/)

For details on all Centres, see <http://www.heacademy.ac.uk/>

How can we work together? – an appeal from Engineering

- Remember - we're there for you !!
 - Sign up to our email list: [\[http://www.engsc.ac.uk/us/join.asp\]](http://www.engsc.ac.uk/us/join.asp)
 - Pass on relevant information to colleagues
 - Let colleagues know about the Centre and its provision
 - Use RSS Feeds: automatic news, events and resources service direct to your website



But, in addition,

- Please let **us** know:
 - if you have developed, implemented or practiced any new approaches, or altered any existing ones, in your learning and teaching ...we'd love to hear from you!

THANK YOU.