

REFERRED/DEFERRED ASSESSMENT - SESSION 2008/09 SUMMER 2009

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| COURSE CODE | BUIL 0007 |
| COURSE TITLE | Construction Technology & Maintenance |
| COURSE COORDINATOR | Anthony Kelly |

To Students

If you have failed a course or part of a course and have been allowed by the Progression and Award Board to be reassessed in one or several of the courses, this will be indicated in your result letter. On the back of the result letter, the words '*Failed -retake permitted before the next academic year*' will appear next to the relevant assessment items or course(s).

In that case, you are required to submit coursework and/or to take an examination again as appropriate in August 2009.

Examination timetable

The detailed examination timetable will be posted on the University website **towards the end of July**. Deferred/referred examinations will be timetabled between 17th to 28th August 2009. The link can be followed from here:

<http://www.gre.ac.uk/students/exams>

Deadline for submitting coursework

Coursework must be delivered by hand no later than **Monday 17th August 2009** to the School of Architecture & Construction.

If you send your coursework by post, it must be sent by first class recorded delivery (keep a copy of both the postal receipt and the coursework) **no later than Monday 17th August 2009** to:

Referred/Deferred Coursework
School of Architecture & Construction
Mansion Site
Bexley Road
London SE9 2PQ
UK

Coursework submission

All coursework must be submitted by the deadline and method as above and must be accompanied by the appropriate electronic header sheet.

Postal Submissions

All postal submissions, Coursework and Portfolios, will be receipted with the date of postage as the date of submission.

It is the responsibility of the student to ensure that the work is submitted on time by the above method.

Queries

Any queries should be emailed to

[**acqueries07@gre.ac.uk**](mailto:acqueries07@gre.ac.uk)

with

- Your full name
- Your student ID number
- Your Programme of Study e.g. BA Architecture
- The title and code of the course(s) with which you have a query
- The nature of the query

Please note that emails to this address will be answered up to Friday 25th September 2009, after this date enquiries should be sent direct to the Course Coordinator. Staff email addresses and contact numbers can be looked up here:

[**http://www.gre.ac.uk/staff_intranet/directory**](http://www.gre.ac.uk/staff_intranet/directory)

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Please find below details of the coursework to be submitted and/or examination advice as appropriate. You may be required to complete one or possibly both courseworks. If you are unsure about this, please contact the course coordinator, Anthony Kelly (A.Kelly@gre.ac.uk) for clarification.

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|---|---------------------------|
| Assessment item | Individual Project |
| Electronic header sheet number | 156462 |
| <p>Details of work:</p> <p>Project/Coursework Title: Solar Shading of the Tower Building</p> <p><u>Aims</u></p> <p>To develop an appreciation of the discomfort problems associated with glare and solar heat gain in buildings and the ways in which these can be controlled.</p> <p><u>Learning Outcomes</u></p> <p>As a result of completing this assessment students will understand why problems of glare and heat gain occur within buildings and how such problems can be overcome.</p> <p><u>Task</u></p> <p>The University's Facilities Management Department has sought the views of teaching staff on the appropriateness of lecture halls and teaching space. A number of staff members have expressed concern about the conditions in various rooms in the Tower Building. Many reports refer to problems of glare from direct sunlight and excessively high temperatures during summer months caused by solar heat gain.</p> <p>The University is seeking your advice on the best way to deal with this problem. They have commissioned you to prepare a report that details why these problems occur and how they can be overcome. There are many different methods, internal and external and the University has specifically requested that your report details the advantages and disadvantages of each.</p> <p>Your report should:</p> <ol style="list-style-type: none"> 1. Explain why buildings are affected by glare and heat gain taking account of the size and position of windows in the building and their orientation. 2. Describe the alternative approaches that could reduce glare and heat gain, explaining the advantages and disadvantages of each. | |

Useful References

Littlefair, P J (1999) *Solar Shading of Buildings*, Construction Research Communications, BRE Report BR364

www.levolux.com/

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

Proportion of overall assessment

This studio comprises 25 % of the overall assessment for the course

| Assessment item | Group Presentation and Submission |
|--|-----------------------------------|
| Electronic header sheet number | 156463 |
| Details of work: | |
| Project/Coursework Title: Environmental Services | |
| This project is to be completed <i>individually</i>. | |
| <u>Aims</u> | |
| The aim of the project is to provide you with an opportunity to develop your abilities to research and produce a realistic proposal for a client. The project will provide you with an insight into the problems of designing a realistic scheme whilst ensuring that solutions are functional and comply with current regulations. | |
| <u>Learning Outcomes</u> | |
| At the conclusion of the project students will: | |
| <ol style="list-style-type: none">1. Be able to generate realistic and implementable design concepts for a client; and,2. appreciate the space requirements of environmental services within buildings. | |
| <u>Tasks</u> | |
| A developer (your client) is planning the development of a commercial building on a business park. The developer has a background in housing development and little experience of office development projects. Hence, he has engaged the services of your multi-disciplinary consultancy that specialises in the interior design and fitting out of commercial office space. | |
| An outline floor plan of the steel framed, three- storey subject building is enclosed, its clear storey height is four metres. The developer intends to lease this building to an international conglomerate as the regional office for their E-Commerce related | |

activities. Beyond this use, future use is unknown and maximum flexibility of space layout is required.

Produce a report for the developer's Project Manager containing the following:

1. A *brief* introduction containing a technical description of the building's: structural form; main materials of construction; space layout and servicing.
2. A technical description and a schematic diagram for each of the following:
 - 2.1. Hot and cold water installation.
 - 2.2. Above ground drainage.
 - 2.3. Electric lighting.
 - 2.4. Air-conditioning.
 - 2.5. The electrical installation.

For example technical descriptions refer to building case studies in the *Architects' Journal* (available in library). Cable sizing and other technical detail of this nature is not required but information on location and general provision is.

Identify approximate sizes, space requirements, materials and major maintenance requirements.

Notes

- The course coordinator is the client's representative and will clarify and expand on the above brief as necessary.
- All drawings should be on suitably sized paper (at least A3 or larger and not tracing paper).
- This studio comprises 25 % of the overall assessment for the course.

Useful References

Alder, D (ed.) (1999) *Metric Handbook: planning and design data*, Architectural Press, Oxford

Bailey, S. (1990) *Offices: A briefing and design guide*, Butterworth Architecture, London

Barry, R. (1998) *The Construction of Buildings, Vol.5: Building Services (3rd ed.)* Blackwell Science, Oxford

Bell, J & Burt, W (1995) *Designing Buildings for Daylight*, BRE/CIBSE

Burberry, P. (1997) *Mitchell's Environment and Services*, Longman

Chadderton, D V (2000) *Building services engineering (3rd ed.)*, E & FN Spon, London

Chadderton, D V (1997) *Air Conditioning: a practical introduction (2nd ed.)*, E & FN Spon, London

Crane, R. & Dixon, M. (1991) *Architects Data Sheets: Office Spaces*, Architecture and Design Technology Press, London

Duffy, F (1992) *The Changing Workplace*, Phaidon Press Ltd, London

Duffy, F, Laing, A & Crisp, V (1993) *The Responsible Workplace*, Butterworth-Heinemann and the Estates Gazette

Hall, F & Greeno, R (2001) *Building Services Handbook*, Butterworth-Heinemann, Oxford

Hejab, M & Parsloe, C (1992) *Space & Weight Allowances for Building Services Plant: Inception Stage Design*, BSRIA, Bracknell

Hejab, M & Parsloe, C (1992) *Space Allowances for Building Services Distribution Systems: Detail Design, (Technical Note TN10/92)*, BSRIA, Bracknell

Karlen, M. (1993) *Space Planning Basics*, Van Nostrand Reinhold, New York

Laing, A. et. al. (1998) *New Environments for Working: the re-design of offices and environmental systems for new ways of working*, Construction Research Communications Ltd, London

Neufert, E & P (2000) *Architects' Data (3rd ed.)*, Blackwells, London

Nicholls, R (2001) *Heating Ventilation and Air Conditioning*, Interface Publishing, Oldham

Tregenza, P & Loe, D (1998) *The Design of Lighting*, E & FN Spon, London

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| Assessment item | EXAMINATION |
| Examination advice: see below | |
| Recommended study programme for referred/deferred examination: | |
| <p>The August examination will have the same format as the May examination and there will be a one hour revision session for the August examination on Friday 31 July at 11.00am. The room for this will be indicated on the notice board adjacent to the School of Architecture and Construction office counter.</p> | |

Availability of course tutor for consultation:

If you have any queries relating to any of these assessments or want to make an appointment to discuss them please email me (A.Kelly@gre.ac.uk) or telephone 0208 331 9031.