

SUBJECT REVIEW REPORT

**DEPARTMENT OF
BUILDING ECONOMICS**



**FACULTY OF ARCHITECTURE
UNIVERSITY OF MORATUWA**

29th to 31st August 2006

Review Team :

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PREFACE

Upon being appointed by the Quality Assurance and Accreditation Council (QAAC) of the University Grants Commission (UGC) of Sri Lanka, the Panel of Reviewers comprising Dr. HMA Herath, University of Sri Jayawardenapura, Archt. LT Kiringoda, Urban Development Authority, and Archt. DB Navaratne, Design Consortium Ltd., conducted a Subject Review of Bachelor of Science Honours Degree Course offered by the Department of Building Economics, Faculty of Architecture, University of Moratuwa, Sri Lanka from 29th to 31st August 2006. This report, compiled in conformity with the guidelines set by the QAAC, contains the outcome of the Subject Review.

The Reviewers wish to mention with thanks Prof. Chitra Wedikkara, the Dean, Faculty of Architecture, for having time to discuss with the Reviewers the planned development program for the faculty, Prof. Collin N Peiris, Quality Assurance Specialist of the QAAC, for his participation in the briefing in the department prior to commencement of formal review, and Dr. R Rameezdeen, Head, the Academic and Non-Academic Staff and the students, of the Department of Building Economics for the arrangements made for conducting the Subject Review within the allotted time.

1. SUBJECT REVIEW PROCESS

Aims and Purpose of Subject Review

The QAAC defines the purpose and scope of Subject Review as follows.

“Subject Review (SR) evaluates the quality of education within a department of study. It is focussed on the quality of student learning experience and on student achievement. SR is designed to evaluate both undergraduate and taught post-graduate programmes. The aims and learning outcomes contained in the self-evaluation provide an important reference point for SR. Reviewers evaluate the quality of education in the department(s) under review according to the aims and learning outcomes aspired by the subject team. Reviewers do not use any externally set standards against which the programmes are judged.” [Source: Quality Assurance Hand Book for Sri Lankan Universities]

This definition set out the main principles, aims and purposes of SR and the expectations from both the Subject Team and the Subject Reviewers in general. The case in point of this report is the Subject Review conducted on the Bachelor of Science Honours Degree in Quantity Surveying offered by the Department of Building Economics, University of Moratuwa, Sri Lanka.

Prior to visiting the Department, the Reviewers had received from the QAAC a Self Evaluation Report (SER) on the Degree Programme prepared by the Department. However during the formal presentation of the SER, it came to light that the Department was, in fact, offering two Bachelor of Science Honours Degree Courses; a) Quantity Surveying b) Facilities Management. Since the Self Evaluation Report was only on the Course in Quantity Surveying, the Reviewers focussed only on the Degree Course in Quantity Surveying in the subject review.

The Aspects of Provision under Review

Annex E of “Quality Assurance Hand Book for Sri Lankan Universities (Final Version July 2002)” describes the Guidance on self-evaluation for subject review and the SER prepared by the Department had reference to all aspects required to be addressed by the Subject Team or Subject Providers.

The aspects described in the SER were;

1. Overview of Provision containing
 - a. Aims, Learning Outcomes and Programme Details
 - b. Students, Staff and Facilities
2. Evaluation containing
 - a. Curriculum, Design, Content and Review
 - b. Teaching, Learning and Assessment Methods
 - c. Quality of Students, Including Student Progress and Achievement
 - d. Extent and Use of Student Feedback; Qualitative and Quantitative
 - e. Post-Graduate Studies
 - f. Peer Observation
 - g. Skills Development
 - h. Academic Guidance and Counselling

Other Provisions for Facilitating the Review

Besides the SER, the Department had made arrangements for the Reviewers to peruse a number of documents and the list of documents is in Annex I.

Meetings and Inspections

The Department had made arrangements to meet the Academic and Non-Academic Staff, undergraduate and postgraduate students and to discuss aspects of review pertaining to each group. Owing to second and third year undergraduate students were being away on training, the Reviewers could meet only the first and final year students. The Reviewers had the opportunity to visit the University Library, Reading Room of the Faculty of Architecture, Resource Room of the Department and to observe teaching sessions.

Peer Review Process

The Reviewers noted that there were two Peer Review Processes in the Department; a) review by practitioners of same profession b) review by practitioners of allied professions.

As regards peer review by practitioners of same profession, it was observed that the Department had entered into bi-lateral agreements with Royal Institute of Chartered Surveyors, UK in 1997 and Royal Australian Institute of Quantity Surveyors in 1999 regarding accreditation. Accreditation Boards of these institutions periodically visit the department and review the course. It was also noted that the Department obtained services of an External Examiner for the final examination through these institutions. Owing to these arrangements the Quantity Surveying Honours Degree awarded by the Department is recognized by those institutions for their membership. Besides these the Institute of Quantity Surveyors, Sri Lanka was also found to be actively involved in sustaining the course by providing External Examiners and by participating in accreditation since the inception of the Quantity Surveying undergraduate programme in 1985. [Source: Archival Records in the Department of Building Economics]

Practice of the profession of Quantity Surveying is also closely allied with practice of the professions of Architecture and Engineering. Owing to the number of professional Quantity Surveyors practicing in the country being very small, the Department has made arrangements with state and private sector institutions for students to receive their mandatory industrial training under Chartered Architects and Chartered Engineers. Feedback from these professionals, provided in the form of observations and comments on the student performance during training period, is also considered by the Department as an integral part of Peer Review. [Source: Industrial Training Coordinator of Department of Building Economics]

2. UNIVERSITY, FACULTY AND THE DEPARTMENT

University of Moratuwa

The University of Moratuwa, Sri Lanka, was deemed to be established by an Order under the University Act, No. 16 of 1978, but has its origins in the Ceylon Technical College of Maradana, which was established in 1893. Originally established in 1960, under the corporate name “Institute of Practical Technology (IPTK)” at Katubedda, Moratuwa, with aid from the Government of Canada, the institute provided full time courses for Technicians of sub-professional grades. In addition to the full time courses for Architects, Junior Technical Officers, Surveyors and Levelers and Draughtsman Apprentices, this Institute also offered part time courses in Engineering studies for those employed in government and private sectors, and prepared students for foreign professional examinations of the institutions of Engineering and the Royal Institute of British Architects.

In 1966 the facilities of the Institute had been expanded for conducting courses in professional engineering with UNDP assistance channeled through UNESCO. The corporate

name had also been changed to “Ceylon College of Technology” (CCT). Under the provisions of the University Act No. 1 of 1972, the University of Ceylon was established on the 15th February, 1972, incorporating all the existing universities and the Ceylon College of Technology as Campuses of a single University. The Ceylon College of Technology thus became the Katubedda Campus of the University of Ceylon and it had begun with just one Faculty, that of Engineering and Architecture.

Further changes in the corporate structure and composition were effected by the Universities Act No 16 of 1978. These had lead to the Katubedda Campus of the University of Sri Lanka acquiring the status of an Independent University with its present corporate name 'University of Moratuwa, Sri Lanka', with three faculties of studies viz. the Faculty of Engineering, the Faculty of Architecture and Town & Country Planning, and the Faculty of Physical and Applied Sciences.

The vision of the University of Moratuwa "is to be a centre of excellence of higher learning and related activities with emphasis on national relevance, international recognition, innovation and creativity in Engineering, Architecture, Information Technology and other allied professional disciplines".

Faculty of Architecture

Origins of the Faculty of Architecture goes back to 1972, when it was first established as the Faculty of Engineering and Architecture, the only faculty of newly formed Katubedda Campus of the University of Ceylon. In 1978 it was restructured and renamed as the Faculty of Architecture & Town & Country Planning. It acquired its present status of “Faculty of Architecture” in 1985 and it now consists of the academic Departments of Architecture, Town & Country Planning and Quantity Surveying. The Faculty of Architecture enjoys the unique distinction of being the only seat of education in Sri Lanka offering undergraduate and postgraduate degrees in Architecture, Town & Country Planning, Quantity Surveying, Facility Management and Design.

Department of Building Economics

The Department of Building Economics is one of the three departments in the Faculty of Architecture at the University of Moratuwa. The Department had been founded in 1983 to conduct an Honours Degree programme in Quantity Surveying. Traditionally, the teaching of the subject of Quantity Surveying in Sri Lanka has been at NCT (National Certificate of Technology) or NDT (National Diploma in Technology) level, but the objective of opening of the Department of Building Economics in 1983 had been to lift the status of the Quantity Surveyor to a professional, fully conversant with all aspects of cost control and budgetary management of construction projects.

The Department has developed links with the Sri Lankan construction industry and other professional disciplines through the contingent of visiting staff that teach on the course and through the rapidly growing number of past students both in Sri Lanka and abroad. The Department believes that it provides a truly interdisciplinary and unique approach to the education of professional Quantity Surveyors in Sri Lanka.

There is a strong international stream flowing within the Department. With the assistance of various agencies, the Department has been the focus of several high profile visits which has allowed it to establish links with several internationally recognized centers of Quantity Surveying teaching in England, Australia, Hong Kong, and Singapore. These links have

assisted the staff of the Department of Building Economics to reshape and teach the undergraduate degree programme to be in line with international educational standards.

3. AIMS AND LEARNING OUTCOMES

3.1. Aims

The aims of the Degree Programme are described in the SER as follows;

“The primary aim of the programme is to produce competent graduates who are capable of managing resources in construction in an effective and efficient manner with perception; with the ability to customize themselves to face any challenge with the use of knowledge and skills in order to generate innovative ideas; able to maximize the benefits arising from new opportunities with confidence. The secondary aims of the programme are those of higher education in general, such as inculcation of skills, promotion of powers of mind, development of personality on problem solving skills.”

[Source: Self Evaluation Report of the Bachelor of Science Honours Degree in Quantity Surveying – July 2006]

3.2. Learning Outcomes

As regards the learning outcomes the Department expects that on successful completion of the course, students should be able to;

“3.2.1 Demonstrate the ability to work as Quantity Surveyors both in pre and post contract stages of a construction project.

3.2.2 Demonstrate the required skills and competencies in construction procurement, project documentation, and post-contract management.

3.2.3 Apply the above skills and competencies in economic, managerial and financial control of construction projects.

These learning outcomes are envisaged to enable students to;

3.2.4 Develop intellectual, analytical and critical abilities.

3.2.5 Create an environment for independent and logical thought, integrity and judgment.

3.2.6 Provide a strong foundation on which professional careers can be built in different disciplines of construction especially in Quantity Surveying.

3.2.7 Provide a balanced combination of academic study and vocational training in order to enhance the spirit of professional integrity.”

[Source: Self Evaluation Report of the Bachelor of Science Honours Degree in Quantity Surveying – July 2006]

4. FINDINGS OF THE REVIEW TEAM

4.1. Curriculum Design, Content and Review

Curriculum Design

The degree programme, being conducted by the Department, can be considered as having an autonomous status compared to a faculty-conducted program. Owing to this reason, it has been possible for the Department to introduce in 2005 a semester based modular system in order to be par with international standards. The semester-based modular system structured under 4-levels namely; Introduction/Foundation, Methods, Applications, Ideas/Integration with a 32-week industrial training between Applications and Integration can be considered as designed to produce a graduate, confident and ready to work upon graduation. The Reviewers

felt that the semester-based modular system consisting compulsory and optional modules has given the student a greater flexibility but needs to be directed for optimum results.

Content of the Curriculum

The contents of the curriculum are grouped under Core and Common modules. The Reviewers noted that Core modules focus on educating the students on main responsibilities of a Quantity Surveyor in particular and Common modules on increasing the capacity of students to manage the process of service delivery and to innovate as a professional. It is evident in the statistics on employability of graduates, that the content of the curriculum has been sufficient to produce a graduate who is employable in the construction industry without further training.

Curriculum Review

This is the only RICS and AIQS accredited Quantity Surveying Degree Course in South Asia. Accreditation agreements with national and international bodies of same profession have compelled the Department to monitor the curriculum and the programme, very strictly. This has resulted in methodical documentation of data and information. The Reviewers felt that current arrangements for accreditation merit a permanent space for Department archives. Having in the management structure of the Department, a Curriculum Evaluation and Development Unit (CEDU) totally dedicated to coordinate all matters pertaining to Curriculum Design, Content and Review, has made monitoring the curriculum very efficient. This is evident in the expansion of module stream on Procurement at the request of the industry within a short period after introducing the modular system.

Other Observations

Students were fully aware of the contents of the curriculum and the programme, had no complaints about the submittals and were proud about the recognition of the course by both national and international bodies of Quantity Surveying profession. However, the Reviewers observed that student participation in extra curricular activities of the University, such as sports, social and cultural activities was very low. Non-academic staff also had no complaints or comments regarding receiving submittals which are compulsory for students.

It is the view of the Reviewers that the Curriculum Design, Content and Review can be judged as GOOD.

4.2. Teaching, Learning and Assessment Methods

Teaching Methods

All methods are used to impart knowledge, increase awareness and to develop skills. These include formal lecturing, course works, project works and industrial training. Course modules grouped under Core and Common Groups are further grouped under three and five Streams in respect of each main group and the Department has appointed Stream Coordinators to prepare with lecturers teaching, learning and assessment methods for subjects taught under each stream. This arrangement has helped increasing efficiency in timetabling and effectiveness in responding to developments in practice and research and in teaching and learning. The Reviewers regarded this arrangement as also contributing greatly to curriculum review process and are of the view that appointment of subject coordinators would strengthen both processes. The compulsion on the academic staff to engage in research and present papers and the opportunity created by the University for them to undertake consulting assignments

have benefited the Department in many ways; updated knowledge and integration of new methods. A Research Fund has been established at the Department to support research and publications by the members of the academic staff.

In order to support the modular system the Department has engaged the services of a Management Specialist, a Civil Engineer and a Lawyer. This has expanded and strengthened the interdisciplinary base of the course. The university has already approved engagement of the services of internationally experienced local or internationally reputed foreign lecturers on a semester-based short term contracts with a good salary. The lecturers find it difficult to cope with one-to-one tutoring required in Case Studies of the final year due to each lecturer having to handle a minimum of nine case studies. The academic staff comprises highly qualified professionals but the department is under-staffed to manage the course effectively. The reason attributed to this shortage is the poor response to vacancies due to the large majority of Quantity Surveying graduates produced by this Department being not keen in pursuing a career in academia.

Learning Methods and Facilities for Learning

Course works and Project works have helped enhancing subject-related knowledge and developing skills, encouraged student-centred learning and teamwork and promoted staff-student and industrial interaction. Student-centeredness of learning has further been strengthened by inclusion in the programme training in meditation, etiquette, communication and teamwork. Mid-program industrial training has enabled the students to familiarise with practical application of knowledge and skills and to learn about the work environment of a Quantity Surveyor. The final year research project is an opportunity for students to experience research and also to use their knowledge and experience to display individual initiative, self-reliance and innovation.

The University Library is adequately equipped to cater to the current student population of the Department. The IT capacity of the University has helped increasing the efficiency in the Library and now the students can access the library and make Intra- University and Inter-Library reservations online. The Resource Room of the Department facilitates the students in preparation of submittals. Students also have access to the Faculty Reading Room.

The Department has two computer rooms and all students have access to internet. However, the Reviewers noted that in terms of space the lecture rooms and the computer rooms were almost over-crowded and the new lecture rooms, which were being refurbished, were not suitable as lecture rooms for adult students. All staff members are provided with PCs and individual office space. As regards the Non-academic staff, the Department is heavily under-staffed and those who are serving in the Department are a discontent lot with no prospects of career development opportunities. They also expressed disappointment over the recent trend of students looking down upon them as being staff appointed for subservience in facilitation. The Reviewers observed that Quantity Surveying Student Association was also proactive in facilitation of learning by organising seminars on industry- specific themes.

Assessment Methods

The Department has all methods for assessing student performance; term papers, tutorials, assignments, project work, industrial training, case study and attendance. Assessment is conducted on module basis and annually. Module-based assessment is structured to take into consideration with a higher weightage, the continuous assessment of coursework, project work, assignments class tests, student sessions, practicals and presentations. This arrangement has necessitated attendance also being taken into consideration for assessing

student performance. The Reviewers observed good attendance and proactive student participation in the classrooms. The assessment of dissertation in every stage of its development helps guiding the average student into a better position.

Students were not very much concerned about having to study in English medium after completing their primary and secondary education in either Sinhala or Tamil but the Reviewers observed that those who are weak in English are at a disadvantage due to equal weightage being given for all credits throughout the programme. This was also observed on the performance in the first year being given a lesser weightage in assessing overall performance in final grading. In spite of this disadvantage the students were determined to learn in English medium because of the assured rewarding career after graduation.

It is the view of the Reviewers that the Teaching, Learning and Assessment Methods can be judged as GOOD.

4.3. Quality of Students, Student Progress and Achievements

Quality of Students

Up to 2004 the entry requirements had been the UGC approved performance at GCE-AL Examination in Mathematics stream, a credit pass in English Language at GCE-OL Examination and the performance at an aptitude test conducted by the Department. Since 2004 it has been based on Z-score at GCE-AL Examination in Mathematics, Science and Commerce streams and a credit pass in English Language at GCE-OL Examination. The required Z-score being almost in par with that of Engineering is an indication of the status of the Quantity Surveying Degree Course in the hierarchy of Degree Courses offered by Sri Lankan Universities. The current intake is 50-students and the UGC has asked the Department to double the intake. The Reviewers were convinced that the facilities and the capacity of the Department have reached the exhaustive limits with 50-students and were concerned that doubling the intake would seriously affect the quality of the course.

Student Progress

The student performances in the five years up to 2005 shows a very high standard of performance with over 80% of graduates obtaining high performance grades. The lecturers attributed these results to the entry requirements up to 2004, which required passing the Aptitude Test conducted by the Department. The employment statistics of graduates produced through this Degree Program since inception indicated that, of the total, 73% were employed abroad and unemployment was zero.

Some students were keen to take extra modules but were not encouraged. Students were found to be very active in the Intra-Department social activities such as Quantity Surveying Student Association but participation in activities outside the Department was at a very low level. This, the Reviewers observed, would negatively impact achieving the overall objective of the course.

Considering all the inputs, it is the view of the Reviewers that the Quality of Students including Student Progress and Achievements can be judged as GOOD.

4.4. Extent and Use of Student Feedback

The Department obtains student feedback from Course Works, Project Works, Training Reports and recommendations for further research in the dissertation. The CEDU and Stream Coordinators use this feedback for review of curriculum, and teaching, learning and

assessment methods. The Reviewers noted that if the areas recommended for further research could be published, the students, staff and researchers would be immensely benefited. The Department also obtains student feedback on quality and relevance of teaching but the results are not presently used for any review.

It is the view of the Reviewers that the Extent & Use of Student Feedback by the members of the staff of the department can be judged as GOOD.

4.5. Postgraduate Studies

The Faculty of Architecture has a Board of Higher Degrees, which is responsible for the Post Graduate Study Programs of each Department in the Faculty. The Department of Building Economics presently conducts a Post-Graduate Program leading to PG-Diploma and Master of Science Degree in Project Management and the total number of registered students is forty-seven. Presently seven students are reading for Master of Philosophy Degree and one for a Doctorate in Philosophy. The Department has taken a progressive step by recruiting those reading for MPhil as Research Assistants in the Department. This arrangement has also benefited the Degree Program of the Department because the Research Assistants voluntarily tutor students in their final year case study. The only complaint of the Research Assistants was lack of funds for presenting their research at international forums highly relevant to the areas of their research.

It is the view of the Review that the present status of the Postgraduate Studies of the department can be judged as GOOD.

4.6. Peer Observations

The Department does not have a formal Peer Observation procedure within the Department other than the Peer Review Processes for accreditation of the course and feedback from Training Institutions, the Visiting Staff and External Examiners. The feedbacks received from those sources are used in lesson planning, coursework setting, examination and in moderation. The staff had reservations on formalising Peer Observations as it appears to be a practice alien to the existing culture of Sri Lankan universities. Some lecturers had already tried it by inviting another member of staff to observe classroom sessions. Present arrangements for reviews by accreditation boards of the Institute of Quantity Surveyors, Sri Lanka, Royal Institute of Chartered Surveyors, UK and the Australian Institute of Quantity Surveyors can be considered as bridging the gap to a great extent.

It is the view of the Reviewers that the present status of the Peer Observation adopted by the members of the staff of the department is judged as SATISFACTORY.

4.7. Skills Development

The Department has several programs for skills development. Programs on meditation, IT, Etiquettes and Communication are conducted under common modules. During the review period, a very high level of student participation was observed in classroom sessions for meditation and IT and the students expressed enthusiasm to get the maximum out of it.

Considering all the facts, it is the view of the Review Team that the Skill Development can be judged as GOOD.

4.8. Academic Guidance and Counselling

The Department has appointed a member of the staff as the Department Student Counsellor who liaises with the University Student Counselling Service. Appointment of Stream

Coordinators, Year Coordinators and an Undergraduate Coordinator has strengthened the structure of and increased the efficiency of procedures for Academic Guidance and Counselling. Members of the Academic staff were willing to lend a hand in the process.

It is the view of the Review Team that the present situation with regard to Academic Guidance and Counselling adopted by the department can be judged as GOOD.

5. CONCLUSIONS

Curriculum Design, Content and Review

Strengths/Good Practices

- a) Having a Curriculum Development Unit in the Department
- b) Semester based modular system with many optional modules
- c) Interdisciplinary base of curriculum to cater to construction industry demands
- d) Continuity with Accreditation by RICS, AIQS and IQSSL
- e) Arrangements with practitioners of allied professions for industrial training
- f) Arrangements for receiving feedback from industry and being positively responsive to industry requests
- g) Appointment of Stream Coordinators

Weaknesses

- : a) Lack of direction in optional modules in spite of wider choice
- b) No subject coordinators
- c) No designated space for Department archives

Teaching, Learning and Assessment Methods

Strengths/Good Practices

- a) Multidisciplinary team of lecturers
- b) Having a Research Fund
- c) Having Departmental Resource Room
- d) Online accessibility of library
- e) Arrangements for accommodating academics of international repute on semester based short assignments
- f) Proactive facilitation of learning by students themselves
- g) Appointment of Year/Level Coordinators
- h) Use of all assessment methods

Weaknesses

- a) Equal weightage for all credits of the program and lesser weightage for 1st year marks in final grading
- b) Over-crowded classrooms
- c) Overloaded Academic staff and Discontent Non-academic staff

Quality of Students, Student Progress and Achievements

Strengths/Good Practices

- a) The high demand for the course
- b) Determination of students to complete the course successfully
- c) Zero level unemployment and high demand abroad

- d) A very high rate of successful completion with the majority passing with high grades
- e) Active participation of students in extra curricular activities within the Department

Weaknesses

- a) Very low level of student participation in extra curricular activities of the University

Extent and Use of Student Feedback

Strengths/Good Practices

- a) Having more avenues to receive student feedback
- b) Dissertations recommend areas for further research
- c) Being responsive to student feedback

Weaknesses

- a) Recommended areas for further research not known to students, staff and researchers

Post Graduate Studies

Strengths/Good Practices

- a) Faculty having a Board of Higher Degrees
- b) Department already conducting PG Courses up to Doctorate level
- c) Appointment of MPhil Students as Research Assistants

Weaknesses

- a) Research Assistants reading for MPhil have no opportunities to present their findings at forums relevant to their research

Peer Observation

Strengths/Good Practices

- a) Agreements for Accreditation by RICS, AIQS and IQSSL
- b) Use of feedback in lesson planning, coursework setting, examinations and moderation

Weaknesses

- a) Intra Department Peer observation on quality and relevance of teaching is not in place

Skills Development

Strengths/Good Practices

- a) Skills development is given due place in curriculum
- b) Very high level of student participation in programs for skills development
- c) Meditation, Etiquette and Communication have been included in Skills Development Program

Weaknesses

None

Academic Guidance and Student Counselling

Strengths/Good Practices

- a) Appointment of a Departmental Student Counsellor
- b) Appointment of Year/Level Coordinators
- c) Appointment of Undergraduate Coordinator
- d) All members of Academic staff available for personal contact

Weaknesses

None

Based on the observations made during the visit by the review team and discussed above, the eight aspects were judged as follows:

Aspect Reviewed	Judgement Given
Curriculum Design, Content and Review	Good
Teaching, Learning and Assessment Methods	Good
Quality of Students including Student Progress and Achievements	Good
Extent and Use of Student Feedback, Qualitative and Quantitative	Good
Post Graduate Studies	Good
Peer Observation	Satisfactory
Skills Development	Good
Academic Guidance and Counselling	Good

The overall judgment is suspended

6. RECOMMENDATIONS

The following are recommended by the Reviewers for improving quality of the Bachelor of Science Honours Degree Course conducted by the Department of Building Economics of the University of Moratuwa.

Curriculum Design, Content and Review

The Reviewers were convinced that the procedures for curriculum review have reached a satisfactory level of management efficiency and therefore recommend that the Department should be futuristic in curriculum design and content.

Teaching, Learning and Assessment Methods

The reviewers are of the view that the specialist lecturers in the Department should be allowed to practice their own professions of Management, Law, Architecture and Engineering as much as possible so that the Department could harness the benefits of new developments of those professions to development of curriculum.

As regards the discontentment in the Non-academic Staff, the Reviewers recommend that Quantity Surveying specific training opportunities for career development be given to them through channels outside the University System so that loyalty to the Department and relations with students will improve considerably.

Quality of Students, Student Progress and Achievements

The Reviewers felt that the Department could facilitate students those who wish to follow extra modules by encouraging them to do so and by selecting, where possible, the best performed module GPAs in the final assessment for grading.

It was also observed that students need more student-centred opportunities and forums, such as round-table conferences, debates and seminars backed by the Department, to sharpen their communication skills.

Post Graduate Studies

The Reviewers are of the view that all research conducted by the Research Assistants reading for M.Phil Degree should be promoted for sponsorship so that funds could be made available for presenting the research findings at forums relevant to the areas of research.

Peer Observation

The Reviewers view Peer Observation as a new culture that can easily be developed within the Department with intention of formalising it in the medium term. The other option, which the Reviewers felt possible, is to start the procedure with the Board of Higher Studies providing Peer Observations on research conducted by the Department.

Academic Guidance and Counselling

The Reviewers felt that the process and the procedures could further be facilitated if the members of the Academic Staff could allocate a regular time for personal contacts.

7. ANNEXES

7.1 LIST OF DOCUMENTS ON DISPLAY BEFORE THE REVIEW PANEL

Bound Documents:

- RICS accreditation reports
- AIQS accreditation reports
- Internal review reports
- Industrial feedback
- Students' feedback on course delivery
- Assessment formats
- Training standards
- Dissertation information package
- Student's handbook (for orientation)
- Course work and project work briefs - 2003 to 2005
- Examination papers- 2003 to 2005
- Minutes of
 - Department
 - Senate
- External examiner's report
- Course documents
- Recommended reading list
- Marked- assessment criteria forms

In Folders:

- BEMRU Documents
 - Research Information
 - BEMRU strategy
 - Staff publications
 - Research strategy/agenda-submitted to RICS
- Staff Development
 - Progress reports of lecturers on study leave
 - Staff development activities - 2002 to 2006
 - Staff development and training plan
- MPhil research
 - Synopsis submitted
 - Progress review presentations
 - Submitted thesis
 - Research assistants' profile
- Final reports of research projects
- On-going research projects
- Students' activities (Gee Sisila, Symposium, Awareness Programme, etc.)
- Examination results

Other Displayed Documents:

- Course works and project works (all subjects in all levels)
- Portfolio files (all levels)
- Industrial training (2006)
 - Diaries
 - Reports

- Exam answer scripts
- Dissertations (2003 to 2005)
- Supporting documents to dissertation research

7.2 2006-TIMETABLES FOR EACH YEAR OF ACADEMIC STUDY

LEVEL I - FIRST SEMESTER (Quantity Surveying)

TIME/DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
08.00 - 08.30	QS/C/121 (L/PW) BDC-I SR	QS/GE/111 Meditation RA	QS/CC/135(PW) Accountancy CNT	QS/C/152(L/PW) Con Econ. 1 TR/NT	QS/E/123(L) His. of Architecture MS
08.30 - 09.00					
09.00 - 09.30					
09.30 - 10.00			QS/C/132(L/PW) Comm. Princ. AA		QS/C/122(L/PW) Drawings (G2) NA
10.00 - 10.30	QS/C/151 (L) Econ.1 TR		U.H	QS/C/151 (PW) Econ.1 TR/NT	
10.30 - 11.00					
11.00 - 11.30					
11.30 - 12.00					
12.00 - 12.30	L		N	C	H
12.30 - 01.00	QS/E/131(L)	U			
01.00 - 01.30	IT-I	QS/C/133 (PW) Mgt.1 RP/KG	QS/C/152(L/PW) Con Econ. 1 TRINT	QS/C/133 (L) Mgt. 1 BP	QS/CC/135(L) Accountancy CA
01.30 - 02.00	JS/GK				
02.00 - 02.30					
02.30 - 03.00	QS/GE/112 Photography MS				
03.00 - 03.30		QS/E/131(PW) IT-I	QS/C/132(L/PW) Comm. Princ. CW/RP/NT/KG/JJ	QS/C/121(L) BDC-I SR	
03.30 - 04.00		IS/GK			
04.00 - 04.30					
04.30 - 05.00					
05.00 - 05.30					

LEVEL I - SECOND SEMESTER (Quantity Surveying)

TIME/DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
08.00 - 08.30	QS/QC/121(L/PW) Measurement 1 KP/AS/IG	QS/QC/121 (L/PW) Measurement 1 KP/AS/IG	QS/CE/125 (L/PW) Land Surveying MA	QS/GE/114 Aerobics	QS/CC/153(L) Econ II TR
08.30 - 09.00					
09.00 - 09.30					
09.30 - 10.00					
	QS/CC/126(L) BDC11 NS/MLD	QS/CC/126(L/PW) BDC11 IKS/MJ		QS/GE/115 Japanese	QS/CE/121(PW) Law I JJ
10.00 - 10.30					
10.30 - 11.00					
11.00 -11.30			U.H		
11.30 -12.00				C	H
12.00 - 12.30	L	U	N		
12.30 - 01.00	QS/CC/134(L/PW) Stat.I WPA	QS/CE/141 (L) Law I DP	QS/CC/124(L/PW) Structures I OK	QS/QC/121 (L/PW) Measurement-1 KP/AS/IG	QS/QC/127(L) Services I
01.00 - 01.30					
01.30 - 02.00					
02.00 - 02.30					
02.30 - 03.00					
03.00 - 03.30	QS/QC/127(PW) Services I	QS/GE/113 Web Designing IS/GK		QS/CO/153(L/PW) Econ II TR/NJ	
03.30 - 04.00					
04.00 - 04.30					
04.30 - 05.00			QS/QC/131		
05.00 - 05.30			Project Study (SR)		
05.30 - 06.00					

LEVEL II - FIRST SEMESTER (Quantity Surveying)

TIME/DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
08.30 - 09.00	QS/QC/221 (L/PW) Measurement II KP/AS	QS/QC/221 (L/PW) Measurement II KP/AS	QS/CC/241 (PW) Law II JJ U.H	B. Science(PW) QS/CE/221 NS/KS	QS/CC/232 Management(PW) SS/AM/KG
09.00 - 09.30					
09.30 - 10.00					
10.00 - 10.30					
10.30 - 11.00	QS/CE/221 (L) B. Science NS	QS/CC/251 (L) Con Econ. II SJ		QS/CC/232(L) Management SS/AM	
11.00 - 11.30					
11.30 - 12.00					
12.00 - 12.30 .	L	U	N	C	H
12.30 - 01.00					
01.00 - 01.30	QS/C/251 (PW) Con Ecan. II SJ/JJ	QS/CC/231 (L/PW) IT II IS/GK	QS/CE/222 (L/PW) Structures II CK	QS/QC/221 (L/PW) Measurement II KP/AS	QS/CC/231 (PW/L) IT II IS/GK
01.30 - 02.00					
02.00 - 02.30					
02.30 - 03.00					
03.00 - 03.30	QS/CC/231 (L/PW) IT II IS/GK	QS/CC/241 (L) Law II ID			
03.30 - 04.00					
04.00 - 04.30					
04.30 - 05.00					
05.00 - 05.30					

LEVEL II - SECOND SEMESTER (Quantity Surveying)

TIME/DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
08.30- 09.00	QS/CC/223 (PW) Civil Eng I NS/AM	QS/QC/211 (L) P. Analysis I LA	QS/CE/225(L/PW) Design App	B.SERVICES I (L)	B.SERVICES I (L)	
09.00 - 09.30				QS/CC/224	QS/CC/224	
09.30 - 10.00				..	SG	
10.00 - 10.30						
10.30 - 11.00	QS/CC/223 (L/PW)			QS/CC/233(L/PW)	QS/CC/253 (L/PW)	
11.00 -11.30	Land Econ & Valuation	Comm Prin SG	U.H	Management III. SF/KG	Cons. Econ III NZ/NT	
11.30 - 12.00	TR/NT					
12.00 - 12.30						
12.30 - 01.00	L	U	N	C	H	
01.00 - 01.30	QS/CE/234(L/PW)		QS/CC/253 (L)			
01.30 - 02.00	Statistics II	QS/CC/223 (L)	Cons. Econ III	QS/GE/114	QS/CC/233(L)	
02.00 - 02.30	WPA	Civil Eng I	NZ	Aerobics	Management III	
02.30 - 03.00		NS			SF	
03.00 - 03.30						
03.30 - 04.00	QS/QC/211 (PW) P. Analysis I LA/AS	QS/CC/223 (L)	B.SERVICES I	QS/GE/115		
04.00 - 04.30		Land Econ & Valuation	(PW)	Japanese		
04.30 - 05.00			WP	QS/CC/224		
05.00 - 05.30				KS		

THIRD YEAR (QS)

TIME/DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
08.30 - 09.00	QS 326 (PW) Civil Eng. AM	QS 326 (L) Civil Eng. NS	QS 338 (L) Estimating LA	QS 312 (L/PW) Procurement KP/AS/IG	QS 327(PW) Bldg. Services RP/KS
09.00 - 09.30					
09.30 - 10.00					
10.00 - 10.30					
10.30 - 11.00	QS311 (L) Mgt. Prac. SS/AM	QS 312 (L/PW) Procurement		QS 324(L) BDC NS/MLD	QS 311 (PW) Mgt. Prac. SS/RP/KG/JJ
11.00 - 11.30			U.H		
11.30 - 12.00					
12.00 - 12.30	L	U	N	C	C
12.30 - 01.00					
01.00 - 01.30	QS 312 (L/PW) Procurement KP/AS/IG	QS 338 (L/PW) Valuation WP	QS 312 (L/PW) Procurement KP/AS/IG	QS 327(L) Bldg. Services AT	QS 312(PW) Procurement KP/DP
01.30 - 02.00					
02.00 - 02.30					
02.30 - 03.00					
03.00 - 03.30	QS 324(L) BDC MLD	QS 313 (L/PW) Law DP			QS 311 (L/PW) Mgt. Prac. CA
03.30 - 04.00			QS 324 (PW) BDC		
04.00 - 04.30			MLD/NS/KS		
04.30 - 05.00	QS 338 (PW) Estimating AS			QS 327(L) Bldg. Services CD	
05.00 - 05.30					
05.30 - 06.00					
06.00 - 06.30					

FINAL YEAR (Quantity Surveying) 1st Term

TIME/DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
08.30 - 09.00	QS413 (PW) Info. Tech. IS/GK	QS435 (L) Env. Econ. E	QS 412 (L) Procurement SJ	QS434 (L) Build. Econ. NZ	QS434 (L/PW) Build. Econ. NZ/GK
09.00 - 09.30					
09.30 - 10.00					
10.00 - 10.30					
10.30 - 11.00	QS411 (L/PW) Mgt. & Prac. CW/RRISS/RP/KG	Research Methodologies RRISS		QS 435(L) Proj. Econ. SJ	QS412 (L) Procurement MLD
11.00 - 11.30					
11.30 - 12.00					
12.00 - 12.30	L	U	N	C	H
12.30 - 01.00					
01.00 - 01.30	QS411(L)B Mgt. & Prac. RRISS	QS 446 English for Dissertation ED	QS413 (L) Info. Tech. IS	Research Methodologies RRISS	QS 434 (L/PW) Build. Econ. NZ/TR
01.30 - 02.00					
02.00 - 02.30					
02.30 - 03.00					
03.00 - 03.30	QS413 (L) Info. Tech. IS/CD/GK	QS412(PW) Procurement SJ/AS/SR/IG	QS411 (L)C Mgt. & Prac. HDC/LR	QS435 (PW) Env. Econ. SJ/RP/NT	QS412(PW) Procurement KPI DP
03.30 - 04.00					
04.00 - 04.30					
04.30 - 05.00					
05.00 - 05.30					
05.30 - 06.00					

FINAL YEAR (Quantity Surveying) 2nd & 3rd Terms

TIME / DAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
08.30 - 09.00	QS413 (PW) Info. Tech. IS/GK	QS411 (L)B Mgt. & Prac. RR/SS	QS 435 (L) Proj. Econ. SJ	QS434 (L) Build. Econ. NZ	QS411(L)A Mgt. & Prac. HG
09.00 - 09.30					
09.30 - 10.00					
10.00 - 10.30					
10.30 - 11.00	QS411 (L/PW) Mgt. & Prac. CWRR/SS/RP/KG	QS 446 Dissertation	U.H	QS 412 (L) Procurement SJ	QS412(PW) Procurement SJ/AS/SR/IG
11.00 - 11.30					
11.30 - 12.00					
12.00 - 12.30	L	U	N	C	H
12.30 - 01.00					
01.00 - 01.30	QS411 (L)B Mgt. & Prac. RR/SS	QS434 (PW) Build. Econ. NZ/TR/NT	QS413 (L) Info. Tech. IS	QS435(PW) Env. Econ./Proj. Econ SJ/RP/NT	QS434 (L/PW) Build. Econ. NZ/TR
01.30 - 02.00					
02.00 - 02.30					
02.30 - 03.00					
03.00 - 03.30	QS435 (L) Env.Econ. MH	QS 446 Dissertation	QS411(L)C Mgt. & Prac. HDC/LR	QS413 (L) Info. Tech. CD(2T)/ IS(3T)	QS412(PW) Procurement KP/DP
03.30 - 04.00					
04.00 - 04.30					
04.30 - 05.00					
05.00 - 05.30					
05.30 - 06.00					

7.3 PRESENTATION SLIDES OF THE LIBRARY OF THE UNIVERSITY OF MORATUWA



Our Resources

- Over 86,000 volumes of Books, Conference Proceedings, Thesis, Project Reports, Research Reports, Standards, Audio Visual Materials, CD ROMs etc.
- Over 500 periodical titles (116 Current Titles)

Collection related to Quantity Surveying

Subject	No of Books	Percentage
■ Construction (Building) Trade	3274	4.32 %
■ Architecture	5196	6.86 %
■ Civil & Structural Engineering	3414	4.51 %
■ Management	2873	3.79%
■ Information Technology	2841	3.75%
■ Economics	1347	1.78%
■ Law	482	0.63%

Online Databases – Through INASP

- EBSCOhost
- Ingenta
- Blackwell-Synergy
- African Journals Online
- American Society of Agricultural & Biological Engineers
- Beech Tree Publishing
- Inside
- National Academy Press
- Wiley InterScience
- World Bank Publications

Online Databases - Subscribed

- Emerald
- ScienceDirect
- ACM Digital Library
- IEEE
- IEE

Our Services

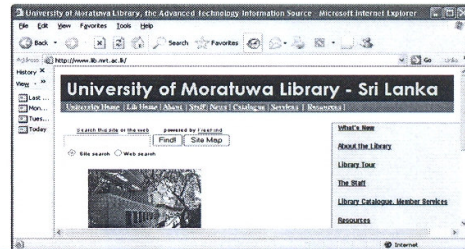
- Lending
- Reference
- Referrals
- Inter Library Loans (ILL)
- British Library Document Supply Centre (BLDSC) Loans
- Computer Lab
- Access to Computers with Internet Facility
- Special Study Rooms with Internet Facility
- Photocopy Service
- Cloak Rooms

Our Online Services

- Online Public Access Catalogues
- Online Renewals
- Online Reservations
- Online Requisitions
- Library Website

Library Website

- <http://www.lib.mrt.ac.lk/>



Our Publications

- Library User Guide
- Start-Here Guides
- E-Resources Alert
- New Additions list (E-Group)

Our Strengths

- Staff
 - 7 Professional
 - 19 Para-Professional
 - 12 Supportive
- IT Facilities
- Integrated Library Management System
- Support through Academic & Administrative Integration

Our Focus

- To satisfy the information needs of our Library users:
 - Undergraduates
 - Diploma Students
 - Postgraduates
 - Staff Members
 - Academic
 - Academic-Support
 - Administrative
 - Non-Academic

Our Future Plans

- Integrated Library Management through RFID System.
- E-Library Facilities & Services

7.4 STUDENT COUNCELLING STRUCTURE OF UNIVERSITY OF MORATUWA

Student Counselling Structure University of Moratuwa

