SUBJECT REVIEW REPORT

DEPARTMENT OF BIOCHEMISTRY



FACULTY OF MEDICINE UNIVERSITY OF PERADENIYA

12th to 14th October 2009

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tation (QAA) framework currently implemented in the University system in Sri Lanka, envisages reviewing all subjects and institutions in the national Universities of Sri Lanka. In keeping with this objective, the Quality Assurance and Accreditation Council of the University Grants Commission, Sri Lanka appointed a team of senior academics from the Universities of Kelaniya, Colombo and Sri Jayewardenepura to undertake a subject review in Biochemistry at the Faculty of Medicine, University of Peradeniya.

The Review Team comprised of: Prof Nilanthi de Silva (Review Chair) Prof Ira Thabrew Prof C P D W Matthew Dr Sagarika Ekanayake

Purpose and aims of the review

The subject review was undertaken to evaluate the quality of the Biochemistry teaching programme at the Faculty of Medicine University of Peradeniya. The review visit was carried out by the above team from 12 \u00e3 14 October 2009 (see Annexure 1 for programme). The process used was acquisition of additional information through discussion of issues, and gathering of and analysis of evidence. These findings were then compared with the Self Evaluation Report (SER) presented by the Department of Biochemistry. The aim was to use all evidence to make a judgment as required by the Quality Assurance Programme on the quality of the eight review aspects listed below, as given in the Quality Assurance Handbook, for Sri Lankan Universities, published by the CVCD and UGC in July 2002:

- 1. Curriculum Design, Content and Review
- 2. Teaching, Learning and Assessment Methods
- 3. Quality of students, including student progress and achievement
- 4. Extent and Use of Student Feedback (Qualitative and Quantitative)
- 5. Postgraduate Studies
- 6. Peer Observation
- 7. Skills Development
- 8. Academic Guidance and Counselling

The Faculty is in the process of changing its MBBS curriculum at present. Students who entered the Faculty from 2005 onwards, and are now in the first to fourth years of study are following the new curriculum, while the more senior batches are following the old curriculum. The first batch of students on the new curriculum has completed the Biochemistry course. However, the students who entered the Faculty in 2008 are currently following a revised version of the new curriculum.

Peer review process

The review processes adopted by the team were:

• **meetings** with the Vice-Chancellor; Deputy Vice-Chancellor; Director, Academic Affairs; Dean of the Faculty; Director, MEU; Chairperson, CCC; Head of Department; academic and non academic staff in the Department; and undergraduate and postgraduate students (see Annexure 2 for the complete list of persons met during the visit).

ion sessions ó one lecture for 1st year students, a year second semester contents and a research seminar ent (M Phil)

- **inspection** of academic facilities: lecture halls, seminar rooms, laboratories and learning support facilities (library and e-library), postgraduate laboratories, technical resource centre
- **perusal** of documents (curriculum documents, timetables, handouts & lecture notes, examination papers, Departmental meeting minutes, research publications, samples of answer scripts etc.).

The Review Team wishes to note that it was not possible to observe teaching activities as recommended in the QA Handbook since only the most recent intake of students (who had been in the Faculty for just over a month) were in session during the review visit.

2. BRIEF HISTORY OF THE UNIVERSITY, FACULTY AND THE DEPARTMENT

The University of Peradeniya is the largest residential campus in Sri Lanka. The university celebrated 50 years of its existence in 2002. It was originally a part of the University of Ceylon in Colombo established under the Ceylon University ordinance No. 20 in 1942, and shifted to Peradeniya in 1952. At present the University has eight Faculties.

The Faculty of Medicine of the University of Peradeniya was involved in training undergraduate students of the Faculty of Medicine, Dental School and School of Veterinary Science for a considerable period of time until the 2 schools attained faculty status. Teaching, continuous assessment and end of course evaluation was carried out entirely by the department with an approved cadre of 13 academic staff. With the Dental School attaining faculty status one cadre was transferred to the newly established faculty. The academic cadre of 13 was based on the number of students admitted to the Faculty of Medicine (90), Dental School (25) and School of Veterinary Science (25).

The department was inaugurated in 1962 with the commencement of the Faculty of Medicine at Peradeniya. Currently it is involved in teaching and evaluation of medical undergraduates only (approximately 190 in each batch). It has an academic cadre of 12, but only 6 of these posts are filled at present, with 01 professor, 4 senior lecturers and one lecturer. The academic staff are supported by 5 Technical Officers and 3 Laboratory Attendants, but it has no Clerical Officer. During an academic year, the department handles 2 batches during 2 terms out of 3 terms per academic year, with each term covering a period of 11 weeks.

The department, which was initially located in a temporary building, moved to its current permanent location on the second floor of the new pre-clinical block, in the year 2000. At the present site, the department has spacious office rooms, 2 large student laboratories, a post-graduate laboratory, stores for chemicals, a seminar room, a computer room and other facilities for students to engage in their learning activities. Internet connections have been provided to most of the staff rooms and some staff members are given computers. The other academic staff members use their personal computers. Undergraduate students of the Faculty of Allied Health Sciences at Peradeniya and students of the Postgraduate Institute of Science also use the laboratory facilities at present

nding and reference collections within the main reading s for students. The faculty library is mainly used by

medical & dental undergraduate students and staff of the Medical and Dental faculties, while postgraduate trainees, doctors and post graduate research students also have limited access to the facilities.

The e-library in the Faculty has 40 computer terminals that serve as student access points.

3. AIMS AND LEARNING OUTCOMES

3.1. Aims

As stated in the Self-Evaluation Report, the aims of the department are to:

- provide quality teaching and learning programmes at undergraduate level to meet the expectations of the faculty and the Sri Lanka Medical Council (SLMC).
- provide a stimulating, fair, friendly and supportive environment for all students
- train in the relevant technical, analytical and laboratory skills required
- improve self confidence, competency, positive working attitudes and professional attitudes needed in the career.
- develop self-learning capabilities and intellectual ability to acquire new knowledge in emerging fields related to Medicine
- enhance writing and reading skills and a variety of soft skills (communication, critical thinking, independent thinking, ICT skills)
- provide research based teaching at higher levels.
- develop and use information technology in support of teaching, research communication, administration and encourage innovative methods in the use of multimedia and IT.

3.2. Learning Outcomes

As stated in the Self-Evaluation Report, the desired learning outcomes under the new MBBS curriculum are as follows:

On successful completion of the teaching/ learning activities offered by the department the student is expected to:

- 1. acquire sound knowledge on the principles in human biochemistry to understand the scientific basic of medicine.
- 2. attain a level of understanding sufficient enough to identify deviation in the biochemical parameters brought about by abnormal biochemical and metabolic events in the body.
- 3. achieve interpretative skills related to laboratory analysis of abnormal events in the body.
- 4. demonstrate their Problem-Solving Skills i.e., their ability to assess the elements of a problem and develop and test a solution, based on logic and the best possible information.
- 5. develop their ability to communicate effectively, and work as team members.

Programme details

The introduction of Beyond 2004 academic programmeø facilitated integration of the 4 major areas in the old Biochemistry curriculum into modules developed by the curriculum development committee whereby the identity of the specific areas taught has disappeared,

k in the content area handled by the department. The needs review in future.

The curriculum developed for the \div Beyond 2004 academic programmeø is now a faculty document developed by 2 committees \div Xø an \div Yø with active participation of the members of the department.

The ten modules developed to implement the teaching learning activities are (1) Foundation, (2) Respiration and Gas exchange, (3) Circulation and blood, (4) Nervous control and behaviour, (5) Alimentation, (6) Locomotion, (7) Endocrine functions, homeostasis and metabolism (8) Growth, Development, Nutrition and Ageing, (9) Excretion and Reproduction (10) Immunity, Infections & Barrier Tissues. The ten modules include two out of the 4 major conceptual streams on which the curriculum revision was based namely (a) Scientific basis of Medicine (SBM) and (b) Clinical, laboratory and management (CLM). The other 2 streams are Communication, Learning, Language and Research (CLR) and Doctor-in-Society (DIS)

The new curriculum which replaced the traditional Biochemistry course in 2005 is semester based. The department contributed to the teaching and evaluation during the semester examinations conducted by the faculty with the assistance of the $\pm Z$ ø committee. However the lecture and practical classes have reduced with the curricular revision but the participation in small group discussions increased. The teachers are involved in new teaching methods such as $\pm C$ linical case of relevanceø, which involves preparation of the learning materials by the contributing departments.

4. FINDINGS OF THE REVIEW TEAM

4.1. Curriculum Design, Content and Review

Curriculum design

Since 2005 the faculty has changed over from a traditional discipline-based curriculum to a new, organ system based one. The revision is aimed at making the MBBS curriculum more integrated, student centered, and community oriented. It was also meant to be spiral curriculum to permit students to spend more time on self-directed learning.

Biochemistry is not offered by the department as a separate subject to any students at present.

This new curriculum which is semester based has been developed by two committees (X & Y) appointed by Curriculum Coordinating Centre, with active participation of most of the academic staff of the department of Biochemistry. In the new curriculum, the major areas of the traditional curriculum have been incorporated in to 10 modules. Year I, Semester 1 of the new curriculum consists of a Foundation Module followed by 4 system-based modules, namely Blood & circulation, Respiration & gas exchange, Alimentation, Reproduction & excretion. Year I, Semester 2 of the new curriculum consists of 5 system-based modules namely Locomotion, Nervous control and behaviour, Endocrine functions, homeostasis & metabolism, Growth, development, ageing & Nutrition and Infection, immunity & barrier tissues. The academic staff of the department is involved in teaching and evaluation of all the modules except Immunity & barrier tissues. In the first year the students learn the normal structure and functions of the organ systems followed by the dysfunction leading to disease of the same in the second year up to 2008. Due to logistic problems caused by the large number

gement, the curricular contents taught in the 1st and 2nd ie normal and abnormal structure and function of each odules. This modification has been recommended by the

CCC on recommendation of the preclinical heads. This merger has decreased the excessive work load of the academic and support staff. The undergraduates who have followed the separate module system and those following the merged system both approved this change. According to the students many overlaps found in modules prior to the merger have now been avoided.

During the change in curriculum, a drastic reduction in Biochemistry lecture and practical hours has taken place. As a result of reduction in time allocation at present the students do not gain in-depth knowledge in Biochemistry.

Curriculum content

The academic members of the department are involved in teaching in all the modules except in immunity and barrier tissues. However their major contribution is to Foundation, Endocrine function homeostasis and metabolism and Growth, development nutrition and aging modules. The contribution to the above modules by the dept is as follows (approximately):

	Lectures (h)	SGD	Practical	CCR	Seminar (no)
		(h)	(h)	(h)	(staff/student)
Foundation	37	6	19	2	-
module (merged)					
Endocrine	55	32	-	-	-
module					
(To be merged)					
Growth,	17	6	-	-	02
development					(01 staff & 01
nutrition and					student)
aging module					
(To be merged)					

For all learning modules and streams (Doctor in Society and Communication, learning and research) the objectives have been developed for the 1st 2 years. The course out line complied in the form of a booklet is distributed when the new entrants are admitted to the faculty. This was confirmed by the students during the discussions.

Despite the reduction in content, the new curriculum provides sufficient knowledge of Biochemistry to medical students for their clinical studies. This was confirmed by the perusal of the curriculum content in the form of objectives, lecture topics and practical schedules and CCR examples.

Curriculum review

The curriculum is regularly reviewed by a StudentóAcademic Committee established and monitored by the CCC. Recommendations based on student feed back following review by CCC are forwarded to the individual dept through the Faculty Board. This was confirmed by the discussion with the Head/ Medical Education Unit, perusal of the CCC and minutes of the departmental meetings.

Unlimited Pages and Expanded Features

in, content and review, the judgment of the team is

4.2. Teaching Learning and Assessment Methods

Teaching and Learning methods

In the new curriculum, in addition to traditional lectures and practicals, novel teaching methods such as Small Group Discussions (SGDs), Clinical Cases of Relevance (CCR), and student and staff seminars have been introduced. The SGDs and CCRs are highly appreciated by both students who have completed the biochemistry course and those who are presently participating in the course. Students even expressed a desire for additional SGDs and CCRs. In addition, these sessions increase the staff-student interactions.

However, with respect to student seminars, the students were not satisfied about the facilities available for student seminar preparation. They also voiced their dissatisfaction with the large number of presentations per day as this leads to student fatigue. It is recommended that these seminar sessions to be restricted to 1h sessions. Regarding staff seminars students were dissatisfied with poor coordination between different departments.

The availability of multimedia facilities in all the lecture halls facilitates the academic staff to make lectures more interesting and stimulating. However, according to students only few lecturers provide handouts of PowerPoint presentations of their lectures to the students. It is recommended that the lecturers provide a hard copy of their presentations prior to the lecture.

The available e-library facilities are available for reference work and preparation of student seminars. The facilities are poorly maintained and the low number of functional computers and the absence of a dedicated line for internet connection have hampered the self centered student learning.

Physical facilities and laboratory space are adequate for student learning. Insufficient number of seminar rooms has increased the number of students in a SGD group. According to the students the facilities at the lecture halls are not satisfactory. For eg: poor ventilation, insufficient chairs with an arm rest suitable for copying notes and lack of white boards.

The library provides sufficient text books in the lending and reference section. In additions the library also provides CDs on Biochemical topics. However, the librarian stated that these CDs are not utilized to a satisfactory level by the students.

Assessment

The Biochemistry component in each module is assessed separately using MCQs, SAQs and OSPE. The review team is satisfied that the assessment system is fair and assessed the knowledge and the interpretative skills of the students sufficiently. However, the current assessment system does not test the laboratory skills required for a basic medical practitioner.

The formative assessments conducted at the end of each module prior to the merger are not carried out anymore.

Summative examination is conducted at the end of each semester and the students sit for 2 semester examinations in a year. They also sit for a bar examination at the end of 4 semesters.

Unlimited Pages and Expanded Features

SAQ, and Objective Structured Practical Examinations d the duration of the theory papers varied depending on ommittee has already worked out details of examination

procedures and guidelines for examiners.

The MCQs, SAQs and OSPE questions are set by the confirmed academic members of the Department. The questions are not horizontally integrated and there are clearly defined sections for each of the 03 preclinical subjects in the question paper. According to the instructions by the Head of the Dept, the confirmed members prepare the required number of questions. These are then moderated by the Head in consultation with the respective staff member. At a scrutiny board prior to the examination, conducted by the Dean, and the chief examiners of each of the module examinations, these questions are further subjected to rigorous evaluation.

In relation to the teaching, learning and assessment methods, the judgment of the team is GOOD.

4.3. Quality of Students, including Student Progress and Achievements

As for all other universities, recruitment and admission of students to the Peradeniya Medical Faculty is done centrally by the University Grants Commission, according to their admissions policy.

According to data presented in the SER, among the 10 batches who sat for Biochemistry examinations in the period preceding 2004 (the last year in which students were examined in Biochemistry under the old curriculum), between 70 and 85% of students passed the examination at the first attempt, and 1 6 5% of students had Distinction level marks (>=70%).

Two batches of students have now completed the first summative examination held at the end of the 2nd year of study under the new curriculum. With the first batch of students on the new curriculum (2004/5 intake), of the 175 students who took the examination, 155 (88.6 %) passed at the first attempt. All students passed in the repeat examination, and no-one missed the batch. With the 2nd batch on the new curriculum (2005/6 intake), 145/196 (74 %) of students passed at the first attempt. All except one student passed the repeat examination. This pass rate is generally comparable with those observed at other medical faculties, but unfortunately does not permit any conclusions regarding student progress and achievements in Biochemistry.

Because of the manner in which the marks are computed, it was not possible to obtain data on the performance of students in specific Biochemistry-related components of this examination. However, if an analysis of the marks obtained by students for the Biochemistry part of the module question papers could be analyzed this would accurately reflect the student performance on the biochemistry component of each module.

Under the new curriculum, merit examinations in the subjects of Anatomy, Physiology and Biochemistry are conducted after the 1^{st} summative examination at the end of the 2^{nd} year has been completed. Students with a GPA of >=2.0 are eligible to apply for the merit examinations. Only 17 students from the 2004/5 intake sat for the merit examination in Biochemistry, and 3 students obtained Distinctions. From the 2005/6 batch, none of the

ry merit examination reached the standard required for

It should be noted that this scheme for award of Distinctions is very different to that adopted with the old curriculum, where such awards were based on assessments completed by the entire batch of students. Under the new scheme, it is possible that the best students in Biochemistry may opt not to take the merit examination, and therefore, those who are awarded Distinctions are not necessarily those who are best in Biochemistry.

In relation to the quality of students including student progress and achievements, the judgment of the team is SATISFACTORY.

4.4. Student Feedback

Student feedback has been obtained for each module with previous batches of students. The duly filled forms were collected and the data analyzed and presented by the Chairman of the Z committee at the CCC monthly meetings. The copy of the report was sent to the heads of the relevant departments involved in the teaching/ learning activities. However, this process does not appear to be practiced at present.

Separate questionnaires are available to assess the programme, lectures, SGD and practical sessions. Formal feedback about individual teachers is obtained from students by using a standard questionnaire prepared by the Monitoring and Evaluation committee and approved by the Faculty, even though there is no official compulsion for obtaining such feed back. However, evidence of a system for regular student feed back on biochemistry lectures, practical sessions, SGD and CCR is not available although there is evidence to indicate that informal feedback is obtained by the teachers by discussions with students.

The feed back obtained via studentóacademic committee has been used to recommend changes to the academic contents. This was confirmed by the students.

In relation to the extent and use of student feedback, the judgment of the team is SATISFACTORY.

4.5. Postgraduate Studies

The department is well-equipped and has ample space and many laboratories to carry our postgraduate research such as M Phil, Ph D and DM research. With the exception of one member who is a probationary lecturer, all other members of the academic staff are qualified to supervise postgraduate research. At present three fulltime M Phil students are working towards obtaining their post graduate degrees. There are 11 M Sc students following 6 months research projects under the supervision of academic members attached to the Dept. Considering the space and equipment available it appears that the post graduate laboratories are underutilized. More staff members should be encouraged to supervise students for M Phil and Ph D degrees. However as only 50 % of the academic cadre is filled, this hampers the research activities of the dept staff due to increased teaching commitments. The staff takes part in teaching of M Sc courses in Clinical Biochemistry (80%) and Experimental Biotechnology (30%) conducted by the Post Graduate Institute of Science, and also conducts nutrition lectures for PGIA courses.

he maintenance of sophisticated equipment such as GC stematic training for technical staff to be trained in nce is recommended. Two technical officers trained as

MLTs are underutilized and their services can be obtained for service oriented projects.

The department conducts regular \Re esearch seminarsø where postgraduate students present their findings for critical evaluation. This enables the students to develop their presentation and communication skills and obtain critical feed back on the quality of their research.

The ¿Lipid Clinicø established by the dept provides a service function while also providing facilities and resource materials for research. Molecular biology laboratory is also being developed to provide a service function and fund generation.

Publications in peer reviewed journals of the academic members were made available to the review team (Annexure 3). They indicated, if not for the time constraints, the members could be highly productive in research (Annexure 4).

In relation to the postgraduate studies, the judgment of the team is GOOD.

4.6. Peer Observation

The Department of Biochemistry has no formal scheme of peer observation of teaching at present. However, several informal practices enable academic staff to learn from each other.

Senior academics occasionally observe junior colleagues during classes and give them feedback. The lecture and practical handouts are prepared by junior staff under the supervision of senior staff. Newly recruited staff is expected to follow all lectures conducted by senior staff until they become familiar with the content areas. Question papers and other material used for student assessments are moderated by each other. Regular meetings are held to review Multiple Choice Questions constructed by academic staff, enabling junior staff to learn from their senior colleagues regarding construction of good MCQs.

During discussions with the Director of the Medical Education Unit, the Review Team learnt that a format for peer observation has been approved 1-2 years ago by the Faculty Board. The Faculty Board has also recommended that the peer observation should involve 2 peers who give feedback to the teacher under observation: one educational expert (from the MEU) and another who is a content expert. However, to date, these recommendations appear to have been taken up by just one department in the Medical Faculty.

In relation to the peer observation, the judgment of the team is UNSATISFACTORY.

4.7. Skills Development

The new curriculum has several learning activities that encourage the development of a variety of transferable skills among the students. Small group discussions and student seminars enhance spoken and written skills in the English language as well as communication skills and presentation skills. However, as the student seminars are a student activity only a

te and benefit from this activity. The students suggested students presenting the seminars should be randomly each seminar just prior to the presentation as this will

ensure all students to be prepared for the presentation.

Clinical Cases of Relevance (CCR) introduced in the new curriculum encourages the students to acquire critical thinking ability and ability to apply their knowledge to draw conclusions in a systematic manner.

The laboratory classes impart knowledge on the basis of the tests performed and help to develop interpretative skills. Relevant resource materials are displayed for the students to analyse and interpret the information displayed.

The e-learning library activities have been introduced with the aim of contributing to acquisition of IT, information retrieval and self learning skills of the students. However, these objectives are not being achieved at a satisfactory level due to inadequate internet facilities and lack of functioning computers.

Time has also been allocated for Student Generated Learning Activity in order to encourage self learning skills, but with the revision of the new curriculum, this time has been reduced.

In relation to the skills development, the judgment of the team is GOOD.

4.8. Academic Guidance and Counselling

Upon entry into the study course each student is allocated to a student advisor, a member of the permanent academic staff of the faculty, including members of the Dept of Biochemistry. These advisors meet the students on the very first day of their entry to the faculty. Students are expected to meet with their advisors on a regular basis throughout their stay in the Faculty, and to turn to them in the event of any difficulty, academic or otherwise. Unfortunately, although almost all students meet with their advisors in the 1st term, subsequent meetings are rare as confirmed by discussions with staff and students. The entire academic staff of the department is actively involved in the student advisor scheme established in the faculty.

In the old curriculum the students whose performance were poor in the end of term tests and those failing the end of course examinations were called up for discussion and given a feed back regarding their performance. Students, who failed in the subject of Biochemistry in the 2nd MBBS examination, were provided individual feedback on their performance. They are given special attention until they sit the repeat examination. The teachers help out the students in the art of answering structured answer questions. This practice is continued even after the new curriculum came into existence.

In relation to the academic guidance and counseling, the judgment of the team is GOOD.

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

Aspect Reviewed	Judgment Given
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igrade to	. 25	2 4013144 0013
s and Expanded Features	Methods	Good
Quality of Students including Stu	Satisfactory	
Extent and Use of Student feedba	Satisfactory	
Postgraduate Studies	Good	
Peer Observation	Unsatisfactory	
Skills Development	Good	
Academic Guidance and Counsel	Good	

Satisfactory

5. CONCLUSIONS

1. Curriculum Design, Content and Review

Strengths/good practices:

- 1. Implementation of a new curriculum and ongoing curriculum review.
- 2. Distribution of a handbook containing curricular objectives and expected student out comes on entry to the study program.
- 3. Merger of normal and abnormal structure function within same module.

Weaknesses:

1. Due to reduction of number of lectures and practical hours, students do not sufficient in-depth knowledge of subject matter.

2. Teaching Learning and Assessment Methods

Strengths/good practices

- 1. The lectures, SGD, CCR and practicals are conducted in a manner that ensures that students understand the clinical relevance of biochemistry.
- 2. Assessments are fair and test the biochemical knowledge sufficiently.
- 3. Examination questions are set only by the confirmed members of the dept.

Weaknesses

- 1. Improvements are needed in the staff and student seminars to achieve the objectives of communication, writing skills as well as student centered self learning.
- 2. The numerous assessments create excessive work load for the depleted academic staff.

3. Quality of Students

Strengths/good practices

1. The overall performance of students in the new curriculum is satisfactory.

Weaknesses

1. The marks obtained by students for the biochemistry component of the module/semester papers are not available.

Strengths/good practices

- 1. The mechanisms are established for obtaining formal student feed back on lectures, SGD, Practical, CCR or lecturers.
- 2. Student feed back on Biochemistry subject matter, as obtained by the Student ó Academic Committee is satisfactory.

Weaknesses

1. Formal feed back on lectures, lecturers, SGD, CCR, practicals are not conducted on a regular basis.

5. Postgraduate Studies

Strengths/good practices

- 1. A high number of students are engaged in postgraduate studies in the dept.
- 2. Regular post graduate student seminars
- 3. Availability of suitably qualified senior academic staff for PG supervision
- 4. High number of publications in peer reviewed journals

Weaknesses

- 1. The postgraduate training laboratories are underutilized.
- 2. Relatively low number of students working on research (Ph D and M Phil) degrees.

6. Peer Observation

Strengths / Good practices

1. Informal practices within the Department enable junior academic staff to learn from their senior colleagues.

Weaknesses

1. No organized scheme for peer observation within the dept. despite the availability of a Faculty approved standard form and process.

7. Skills Development

Strengths/good practices

- 1. Teaching learning activities helps improve the communication, writing skills and develop critical thinking ability and ability to apply their knowledge to draw conclusions in a systematic manner.
- 2. Basic laboratory skills for performing basic laboratory tests are provided by the practical classes

Weaknesses

None of note

8. Academic Guidance and Counselling

Strengths/good practices

None of note

within the dept.

6. RECOMMENDATIONS

At Departmental level

- 1. Immediate recruitment for filling the cadre vacancies of the dept
- 2. E-learning library to be utilized in a formal manner for teaching and self learning Biochemistry contents through identified websites/CDs etc.
- 3. The Department should consider carrying out regular analysis of the marks obtained by students in the Biochemistry-related sections of the continuous assessments and summative examinations.
- 4. Academic staff may wish to consider playing a more pro-active role in obtaining regular feedback from students on lectures, SGDs and CCR classes conducted by them.
- 5. The dept should have post graduate research program(s) and more students to be registered for M Phil and Ph Ds
- 6. The Department should consider instituting a formal process for peer observation within the Department, with assistance from the MEU

At Faculty level

- 1. Improve physical facilities in lecture halls in order to provide a better student learning environment.
- 2. The Faculty should consider assigning the Department a clerical officer.
- 3. The Faculty should consider making a photocopier available to the Dept.
- 4. Staff seminars to be better coordinated so that student interest is stimulated.



7. ANNEXES

Annex 1. AGENDA FOR THE REVIEW VISIT

Day 1: Monday, 1	12 th October 2009				
08.00 - 09.00 am	Arrival of the Review Panel from Hotel Topaz				
09.00 - 09.30 am	Meeting with the Vice Chancellor and Chairperson IQAU (Vice				
	Chancellors office)				
09.30 - 09.45 am	Welcome and exchange of formalities with the Dean and Head of				
	Department (Dean's Office)				
09.45 -10.15 am	Tea for Review Panel, Department of Biochemistry				
10.15 -10.30 am	Discussion on the Agenda of the Review with the Head of Department				
10.30 -11.15 am	Presentation of Self Assessment Report, Head, Department of				
Biochemistry (Seminar Room)					
11.15 -12.30 pm	Discussion - Review Panel and all staff (Seminar Room)				
12.30 - 01.30 pm	Lunch				
02.00 - 03.00 pm	Observe Lecture (New entrants)				
03.00 - 03.30 pm	Visit to Medical Education Unit/ Meeting with Dr. K. Marambe, Director,				
MEU					
	Visit to Technical Resource Centre/ Meeting with Head, TRC				
03.30 - 04.00 pm Visit to observe core facilities of the Department. Review Panel escorte					
	by the Head of Department.				
	(Technical Officers to be present at areas of their main responsibility)				
04.30 pm	Review Panel to be taken to Hotel by Faculty transport				

Day 2: Tuesday, 13th October 2009

08.00 - 08.30 am	Meeting of Review Panel to review the tasks for the second day
08.30 - 09.45 am	Observe documents
09.45 -10.15 am	Observe OSPE ÷Bøexam
10.15 -10.30 am	Tea
10.30 -11.00 am	Visit to the Medical Library - discussion on books available for learning
	Biochemistry, Visit to the e-library. Discussion with Librarian, Mrs.
	Sriyani Perera. Escorted by Dr. W I T. Fernando
11.00 -11.30 am	
11.00 -11.30 am 11.30 -12.30 pm	Sriyani Perera. Escorted by Dr. W I T. Fernando
	Sriyani Perera. Escorted by Dr. W I T. Fernando Observe documents



Technical Officers & other non academic staff, Seminar

Department Academic Staff, Seminar room

03.15 - 04.15 pm Meeting with Students 2006/07 batch

04.15 - 04.30 pm Reviewers private meeting

04.30 pm Review Panel to be taken to Hotel by Faculty transport

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eting

09.30 - 10.30 am	Meeting with Postgraduate stude	ents
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10.30 - 10.45 am Tea

10.45 - 11.45 am Observe presentation by PG students

11.45 - 12.45 pm Inspection of postgraduate laboratories (PG students to be present in

their labs)

12.45 - 01.45 pm Lunch

01.45 - 02.30 pm Report writing

02.30 - 03.30 pm Meeting with the Academic staff- Feed back by the review team and Tea

Annex 2. LIST OF PERSONS MET BY THE REVIEW TEAM

- 1. Prof. S B S. Abayakoon, Vice Chancellor, University of Peradeniya
- 2. Prof. A. Wickramasinghe, Deputy Vice Chancellor
- 3. Prof. K S. Walgama, Director Academic Affairs & Chairperson, Internal Quality Assurance Unit
- 4. Dr. A G. Buthpitiya, Dean, Faculty of Medicine
- 5. Prof. R. Sivakanesan, Head, Biochemistry
- 6. Dr. P H P. Fernando, Senior Lecturer in Biochemistry
- 7. Dr. J G S. Ranasinge, Senior Lecturer in Biochemistry
- 8. Dr. H K I. Perera, Senior Lecturer in Biochemistry
- 9. Dr. W I T. Fernando, Lecturer in Biochemistry
- 10. Dr. D M P D B. Dissanayake, Temporary Lecturer
- 11. Dr. S D L. Geeganage, Temporary Lecturer
- 12. Dr. J M N. Priyadarshana, Temporary Lecturer
- 13. Dr. J M S W. Jayasundara, Temporary Lecturer
- 14. Mrs. M K. Karunaratne, Staff Technical Officer
- 15. Mr. Y M. Wijeratna Banda, Senior Staff Technical Officer
- 16. Mr. J M N S. Navaratna, Staff Technical Officer
- 17. Mrs. W H M. Pushapakumari, Staff Technical Officer
- 18. Mr. W D J. Weerasinghe, Staff Technical Officer
- 19. Mr. K. Wickramage, Attendant
- 20. Mr.K M.Ekanayake, Attendant
- 21. Mr.W M. Manatunga, Attendant
- 22. Dr. Kosala Marambe, Director Medical Education Unit
- 23. Mrs. Sriyani Perera, Assistant Librarian
- 24. Dr. V. Weerasinghe, Head, Technical Resource Centre
- 25. Mr. Gamini Weerasekera, Officer in Charge, e- Library

Postgraduate students

26. Mr. W A D N P. Wijesinghe (B. Sc, Molecular Biology Speci	26	Mr WADNP	Wijesinghe	(B. Sc. Molecular Biology Spec	rial)
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27. Mr. W G D. Chandrasiri (B. Sc, Biological Science)

28. Mr. M S K. Amarakoon (B. Sc, Agriculture)

29. Ms. Manorie Silva (B. Sc, Natural Science)

30 Ms. Animisha Manamperi (B. Sc, Biotechnology)

31. Ms. Sachie Gunapala (B. Sc, Biotechnology)

32. Ms. Madushika Karunarathne (B. Sc, Genetics)

(B. Sc, Zoology Special)

(B. Sc, Chemistry Special; Grd I. Chem)

(B. Sc, Biotechnology)

Undergraduate students

36. Student group from 2007/2008 batch - 50

37. Student group from 2006/2006 batch - 15

Annex 3, PUBLICATIONS BY THE ACADEMIC STAFF – DEPT. OF BIOCHEMISTRY

	International peer reviewed journals	International scientific sessions	Local scientific sessions	Books	Chapters in books	Monogr aphs
Prof. R. Sivakanesan	39	14	66	1	3	1
Dr. S B P. Athauda	36	29	70	-	6	-
Dr. J G S. Ranasinghe	10	2	26	-	-	-
Dr.H K I. Perera	1	1	16	1	-	-

Annex 4. POSTGRADUATE STUDENTS SUPERVISED BY THE ACADEMIC STAFF (ONLY THOSE COMPLETED & AWARDED THE DEGREE)

	Ph. D	M. Phil
Prof. R. Sivakanesan	1	10
Dr. S B P. Athauda	-	9
Dr. J G S. Ranasinghe	-	1
Dr. P H P. Fernando	1	1