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A 12-Step Systematic Approach for Curriculum Revision: A Case Study of Undergraduate Nursing Education at Eastern University, Sri Lanka

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ABSTRACT

Nursing education must continuously adapt to meet the evolving demands of healthcare. This case study outlines a systematic 12-step approach to revising the undergraduate nursing curriculum at Eastern University, Sri Lanka. The steps include: (a) Identifying needs for curriculum revision; (b) Assessing the educational environment; (c) Revising programme outcomes; (d) Aligning with the national qualification framework; (e) Revisiting the course contents; (f) Organising course content; (g) Choosing educational strategies; (h) Selecting teaching-learning methods; (i) Deciding assessment systems; (j) Way to manage the educational process; (k) Identifying a way to communicate the curriculum; and (l) Meeting the basic requirements of quality assurance. While presented as sequential, the curriculum revision process is inherently dynamic and collaborative, with progress in one step often influencing others. Adopting this systematic approach enables institutions to ensure their programmes remain relevant, responsive to healthcare needs, and capable of producing highly competent nursing graduates.

Keywords: Curriculum; Curriculum revision; Nursing education; Systematic approach; Sri Lanka

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INTRODUCTION

Nursing education, a cornerstone of healthcare systems worldwide, is continually evolving to meet the dynamic demands of contemporary healthcare (1). The rapid advancements in healthcare, technological innovations, and changing healthcare delivery models necessitate a corresponding evolution in nursing curricula. To ensure the preparation of competent, compassionate, and adaptable nurses, institutions of higher education must engage in periodic curriculum review and revision (2).

Curriculum revision is not merely an academic exercise; it is a strategic imperative that directly impacts the quality of nursing education and, subsequently, patient care. A well-structured curriculum equips nursing students with the requisite knowledge, skills, and attitudes to excel in their professional roles. By aligning curricula with current best practices and emerging trends, institutions can foster graduates who are well-prepared to address the challenges and opportunities of the 21st-century healthcare landscape (3).

While the importance of curriculum revision is widely recognised, a systematic approach is essential to ensure a successful and effective process. A haphazard approach in curricular revision may lead to unintended consequences, such as a misalignment between intended learning outcomes and teaching-learning approaches or assessment strategies. A well-defined, systematic approach provides a framework for identifying needs, developing innovative strategies, and implementing changes that enhance the overall quality of nursing education (4, 5).

Contemporary nursing education practices are characterised by a focus on evidence-based practice, patient-centred care, interprofessional collaboration, and technological integration. Nursing programmes worldwide incorporate innovative teaching methodologies, such as simulation, problem-based learning, and blended learning, to enhance student engagement and critical thinking skills. Additionally, there is a growing emphasis on developing leadership and management competencies to prepare nurses for advanced roles (3).

In Sri Lanka, nursing education has undergone significant advancements over the years. However, the rapid evolution of healthcare demands a continual evaluation and refinement of nursing curricula (6). To address the evolving needs of the healthcare system, it is imperative to adopt a systematic approach to curriculum revision, encompassing the 12 key steps outlined in Figure 1 (4).

By examining the specific 12 steps involved in the curricular revision process, this case study aims to provide insights into the practical application of a systematic approach to curriculum revision in the context of undergraduate nursing education at Eastern University, Sri Lanka.



Figure 1: Twelve steps in the curricular revision process.

Step 1: Identifying Needs for Curriculum Revision

The initial step in curriculum revision is a comprehensive needs assessment. This case study employed several methods to identify the need for curriculum revision. Firstly, feedback from recent graduates provided a detailed overview of the curriculum's strengths and weaknesses. Secondly, an analysis of existing curricula, including content and assessment components, highlighted areas requiring modification. Thirdly, a focus group comprising nursing clinical site experts, nursing educators, and medical experts, known as the 'wise men approach', was convened to recommend curriculum revisions aligned with current healthcare needs and contemporary nursing practice trends (4). Fourthly, an analysis of errors in practice, as described by Cooper et al. (7), identified curricular implementation deficiencies that necessitated revision. Finally, the analysis of national health indicators informed the curriculum development process to ensure its relevance to current healthcare challenges (4).

Step 2: Assessing the Education Environment

The educational environment encompasses all aspects of the learning experience, including the physical and social factors within the classroom, department, faculty, and university (8). Periodic assessment of the educational environment is crucial for ensuring the success of any educational programme. In this case study, the Dundee Ready Educational Environment Measure (DREEM) was used to assess the educational environment of the institution's undergraduate nursing programme. The results of the DREEM assessment indicated a more positive than negative educational environment (9).

Step 3: Revising Programme Outcomes

Spady (10) defines an outcome as "clear learning results that we want students to demonstrate at the end of the significant learning experience". In essence, educational outcomes delineate the competencies expected of graduates (11). After careful consideration and input from

field experts, the nursing subject benchmarks, Sri Lanka Qualifications Framework (SLQF), and the International Council of Nursing, the following outcomes have been identified for the undergraduate nursing programme:

- a. Scientific knowledge in nursing practice
- b. Clinical and nursing skills
- c. Planning and nursing management
- d. Health promotion and patient education
- e. Communication and interpersonal skills
- f. Teamwork and leadership
- g. Problem-solving and research
- h. Ethics and professionalism
- i. Lifelong learning and continuing professional development

Step 4: Aligning the Standards of the National Qualification Framework

The SLQF is a nationally recognised framework for assessing learners' educational attainment (12). It also serves as a regulatory tool for maintaining standards in educational programmes. The undergraduate nursing programme at Eastern University aligns with the sixth level of the SLQF. This programme, officially titled Bachelor of Science Honours in Nursing and abbreviated as BScHons (Nursing), comprises 120 credit points. The notional learning hours are capped at 1,500 per academic year.

The graduate profiles (GP) of the BScHons (Nursing) programme are as follows:

- GP1. Relate the knowledge of normal and deranged structure and functions of the human body in delivering nursing care.
- GP2. Recognise epidemiology of common diseases, clinical manifestations and the rationale for management.
- GP3. Assess health status and identify clients' health needs in administering nursing care.
- GP4. Deliver primary health care, including maternal and child health care.
- GP5. Counsel and educate individuals, families and communities in health promotion.
- GP6. Apply knowledge of behavioural sciences and ethical and legal principles in professional practice.
- GP7. Work as an effective member or leader of a health team, recognising their different roles.
- GP8. Conduct research and disseminate the findings.
- GP9. Use information technology in routine nursing practice.
- GP10. Communicate effectively in English, Sinhala and Tamil with patients, families and health-care teams.
- GP11. Assume responsibility for continuing learning in nursing practice.

As outlined by the SLQF, level-6 qualification holders possess the following attributes:

- SLQF _A1 Should be able to construct and sustain arguments.
- SLQF _A2 Should be able to solve problems using appropriate ideas and techniques in a professional context.
- SLQF _A3 Should be able to demonstrate a thorough and systematic understanding of core aspects of the subject of study.
- SLQF _A4 Should be able to accurately use the established techniques of analysis within that discipline.
- SLQF _A5 Should be able to clearly communicate information, ideas, issues, problems and solutions to specialist as well as non-specialist audiences.
- SLQF _A6 Should be able to exercise initiative and identify situations in which they need support from others.
- SLQF _A7 Should be prepared to carry out further training and manage their own learning.

As shown in Table 1, the graduate profiles of the BScHons (Nursing) programme largely correspond to the attributes of SLQF-6 qualification holders.

Table 1: Alignment of graduate profile with attributes of SLQF-6 qualification holders

Attributes of SLQF-6 qualification holders	Graduate profiles of the BScHons (Nursing) Programme										
	GP 1	GP 2	GP 3	GP 4	GP 5	GP 6	GP 7	GP 8	GP 9	GP 10	GP 11
SLQF _A1	√	√	√√	√	√	√	√√	√√	√	√	√
SLQF _A2	√√	√√	√√√	√√	√√	√√	√√√	√√√	√	√	√
SLQF _A3	√√√	√√	√√√	√√	√√	√√	√	√√	√	√	√
SLQF _A4	√	√	√√	√√	√	√√	√	√√√	√√	√	√
SLQF _A5	√	√	√	√√	√√√	√√√	√√√	√√√	√√	√√√	√
SLQF _A6	√	√	√	√√	√	√√	√√√	√	√	√	√
SLQF _A7	√	√	√	√	√	√	√	√√√	√√	√	√√√

Note: √√√ Highly relevant √ Relevant

Step 5: Revisiting the Course Contents

To align with the programme outcomes, the course content was revised with the input of academic experts. For instance, to achieve the outcome of 'Clinical and Nursing Skills', the following content areas were identified:

- a. Basic Nursing Science: A comprehensive approach to foundational nursing concepts, including both theoretical and practical components, was incorporated into multiple stages of the programme.
- b. Adult Health, Child Health, Mental Health, Gynecology, and Obstetrics Nursing: These modules included specific clinical nursing components to enhance practical skills.
- c. Clinical Practice Modules: These modules were designed to prioritise psychomotor learning objectives, providing ample opportunities for hands-on clinical experience.

Step 6: Organising the Course Content

Once the course content was determined, curriculum planners organised it into a logical sequence, ensuring a progressive learning experience. Fundamental subjects, such as normal body structure and function, were scheduled in the early stages of the programme. More advanced subjects, such as abnormal body structure and function, were placed later in the curriculum. The total notional hours (1 credit = 50 notional hours) allocated for an academic year were 1,500. Table 2 provides a detailed overview of the organised course content for the undergraduate nursing programme.

Table 2: Curriculum outline of the undergraduate nursing programme

Year	Semester	Modules	Credit value (notional hours)
1	1	Nursing Ethics and Professionalism; Basic Concepts of Human Body; Basic Nursing Science; Proficiency in English Level - I; Basic Sinhala/Basic Tamil; Proficiency in Computer Literacy & Information Technology; Psycho-Social Aspects of Nursing; Clinical Practice in Nursing Process	15 (750)
	2	Introduction to Community Health Nursing; Maintenance of Human Body I; Maintenance of Human Body II; Advanced Nursing Science; Basic Principles of Aetiopathogenesis of Human Diseases; Proficiency in English Level - II; Clinical Practice in Basic Nursing Sciences; Basic Pharmacology	15 (750)
2	3	Adult Health Nursing-I; Community Health Nursing; Basic Principles of Infectious Diseases; Clinical Practice in Adult Medical Health; Practice in Community Health Nursing; Introduction to Healthcare Research; Clinical Aspects of aetiopathogenesis of Human Diseases; Nutrition & Dietetics	15 (750)
	4	Adult Health Nursing II; Mental Health Nursing; Clinical Aspects of Infectious Diseases; Basic Statistics; Clinical Practice in Adult Surgical Health; Clinical Practice in Mental Health Nursing; Peace Medicine; Elective - 1 (Advanced Computer Skills for Nurses/Human Resource Management/ Proficiency in Sinhala/Tamil Language/Health Informatic System)	15 (750)
3	5	Adult Health Nursing III; Maintenance of Human Body III; Gynaecological Nursing; Child Health Nursing - I; Nursing Education; Peace Medicine II; Proposal Writing; Clinical Practice in Adult Health Nursing III	15 (750)
	6	Child Health Nursing II; Neonatal Nursing; Obstetric Nursing; Trends in Nursing Profession; Clinical Practice in Child Health Nursing; Clinical Practice in Gynaecological Nursing; Clinical Practice in Obstetric Nursing; Elective - 2 (Health Economics/ Labour Laws & Human Rights/Geographical Information System/Forensic Nursing)	15 (750)
4	7	Emergency & Disaster Nursing; Geriatric Nursing; Nursing Management; Clinical Practice in Geriatric Nursing; Clinical Practice in Nursing Management; Research Project; Open Elective I (Critical Care Nursing - I/Mental Health Nursing - I/ Midwifery Nursing - I)	15 (750)
	8	Clinical Practice in Emergency Nursing; Clinical Practice in Neonatal Nursing; Open Elective II (Critical Care Nursing - II/ Mental Health Nursing - II/Midwifery Nursing - II)	15 (750)

Step 7: Choosing Educational Strategies

Harden's SPICES model was employed to select appropriate educational strategies (13). The revised undergraduate nursing curriculum incorporates the following strategies:

- a. **Student-centred approach:** Aligned with contemporary trends in health professional education, the revised curriculum prioritises a student-centred approach. Students are empowered to take ownership of their learning while faculty members guide and facilitate it.
- b. **Problem-based learning:** While problem-based learning is not extensively integrated, the curriculum incorporates elements that promote problem-solving skills and critical thinking.
- c. **Integrated approach:** The curriculum adopts a systems-based integrated approach, combining various disciplines to provide a holistic understanding of healthcare or nursing.
- d. **Community and hospital-centred approach:** A strong emphasis is placed on community and hospital-based learning experiences.
- e. **Elective components:** The curriculum includes elective components, allowing students to tailor their learning to their specific interests and career goals.
- f. **Systematic planning:** Teaching and learning experiences are systematically planned and documented to ensure a structured and organised approach.

Step 8: Selecting the Teaching-Learning Method

Teaching-learning methods are essential tools to facilitate the achievement of learning objectives. A variety of methods, including lectures, demonstrations, small group discussions, video presentations, and self-directed learning, are available to educators.

Several factors informed the selection of teaching-learning methods for this case study:

- a. **Course outcomes and objectives:** The specific learning outcomes and objectives guided the choice of methods to ensure optimal student learning.
- b. **Availability of local facilities:** The availability of resources, such as classrooms, laboratories, and educational technology, influenced the selection of appropriate methods.
- c. **Staff expertise:** The faculty's expertise and experience in various teaching methods were considered to maximise instructional effectiveness.

Step 9: Deciding on the Assessment System

Assessment is a crucial component of evaluation, as it measures the level of students' attainment. In this case study, four key aspects were considered when selecting student assessment methods:

- a. **Assessment techniques:** Various assessment techniques, such as multiple-choice questions (MCQs), structured essay questions (SEQs), objective structured practical examinations (OSPEs), and objective structured clinical examinations (OSCEs), were considered. For the undergraduate nursing program, a combination of MCQs and SEQs was used for theory modules, while OSPEs, OSCEs, and structured oral examinations were employed for practical modules.

- b. Choice of assessors: Internal assessors (faculty members) were primarily responsible for student assessment in the undergraduate nursing programme. While self-assessment can enhance student learning, it was not a significant component of the assessment strategy.
- c. Timing of assessment: A combination of formative and summative assessments were implemented. Formative assessments were conducted throughout the modules to provide timely feedback to students. Continuous assessment and end-of-semester assessments were used as summative assessments to evaluate overall learning.
- d. Assessment standards: A norm-referenced assessment, which ranks students relative to their peers, was adopted for the undergraduate nursing programme. This approach provides a standardised measure of student performance.

Step 10: A Way to Manage the Educational Process

The educational process management was facilitated through a systematic approach, as illustrated in Figure 2. This flowchart depicts the hierarchical structure of curriculum management within the university. The University Grants Commission (UGC) or the university's governing body (council or senate) provides overall approval. The faculty board and the Dean oversee implementation at the faculty level and report to the Centre for Quality Assurance and the University's Curriculum Development Committee. The Department of Medical Education and Research play a crucial role in monitoring the curriculum, reporting to the faculty's quality assurance cell and the faculty's curriculum development and evaluation committee. At the grassroots level, academic departments execute the curriculum and report any issues to the Dean and the Department of Medical Education and Research.

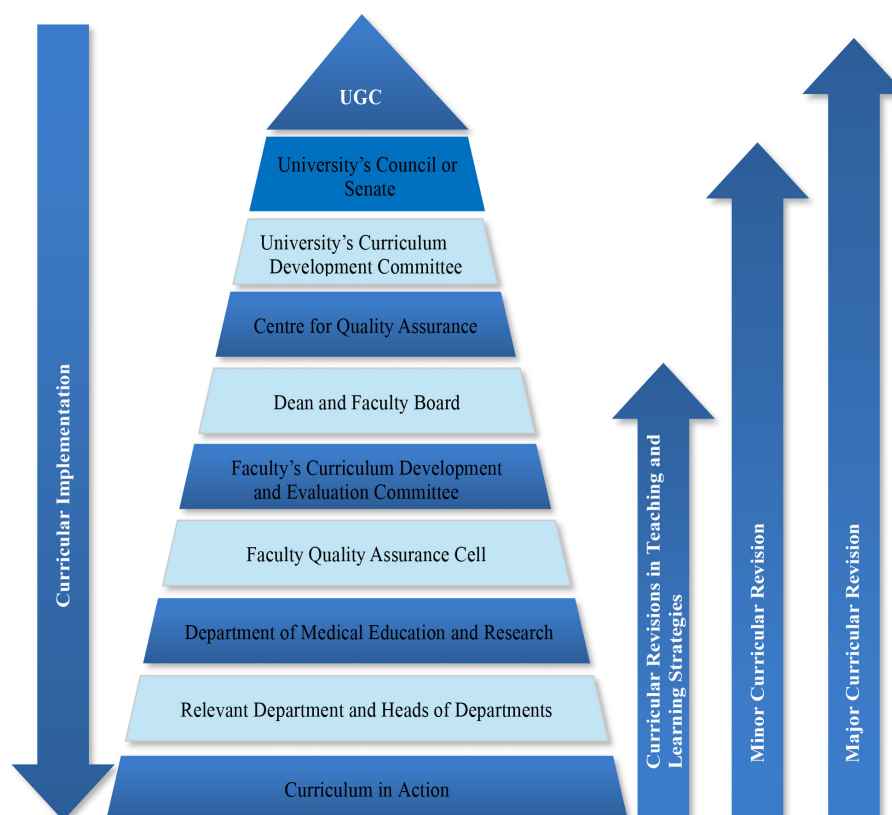


Figure 2: Hierarchical structure of curriculum management.

Step 11: Identifying a Way to Communicate the Curriculum

Effective communication of the curriculum is essential for both faculty and students. In the undergraduate nursing programme, this can be achieved through various channels, including handbooks, student prospectuses, timetables, tutor guides, curriculum books, lesson plans, and online curriculum maps, all of which are accessible on the faculty website.

Step 12: Meeting the Basic Requirements of Quality Assurance

In recent decades, Quality Assurance (QA) has gained significant prominence in Sri Lankan higher education to enhance institutional productivity and standards (14). QA is the positive affirmation of excellence. Performance indicators (PIs) serve as the vehicle for implementing QA. PIs are developed in alignment with the higher education institution's vision, mission, benchmark committee statements, and programme outcomes. These indicators must be quantifiable and measurable. There are two primary types of PIs: (a) standards for performance (which specify the desired level of achievement); and (b) evidence for progress (which guides the attainment of performance standards).

QA processes can be conducted internally or externally. Internal QA is typically carried out by faculty members, culminating in a self-evaluation report. External QA involves external reviewers who conduct site visits and review self-evaluation reports. The University Grants Commission of Sri Lanka has published a revised programme review manual to guide the review of undergraduate programmes (15). To meet optimal standards, programmes must adhere to the following six criteria:

- a. Programme management
- b. Learning resources, learner support and progression
- c. Programme and course/module design and development
- d. Teaching and learning
- e. Student assessment and awards
- f. Innovative and healthy practices

The BScHons (Nursing) programme is developed in accordance with SLQF guidelines and recommendations from the Nursing Benchmark Committee. Internal QA is conducted by the faculty QA cell in accordance with the guidelines outlined in the Programme Review (PR) manual.

For example, as shown in Table 3, criterion 3 (programme and course/module design and development) is reviewed through 25 standards specified in the PR manual. The following is a description of the review of the first three standards under criteria 3 for the BScHons (Nursing) programme.

Table 3: The evaluation of criterion 3 with the first two standards

No	Standards	Examples of sources of evidence	Score guide: 0 (Inadequate); 1 (Barely adequate); 2 (Adequate); 3 (Good)
3.1	The Faculty/Institute ensures that the study programme is designed, developed and revised collaboratively through a curriculum revision and development committee or equivalent body with the participation of relevant stakeholders, who have been made aware of their respective roles and given due consideration to their views.	Relevant instructions/ circulars issued by the Faculty/ Institute; Relevant minutes and attendance of curriculum development committee and internal/external stakeholders (students, graduates, employers/ professional bodies); Samples of letters of invitation sent to stakeholders; Feedback reports from stakeholders; List of suggestions incorporated into programme design and development.	2
3.2	The Faculty/Institute ensures that the courses/modules/ subjects are designed and developed by a committee of the department (course/ module/subject teams) comprising internal and external subject experts who have been made aware of their respective roles by the relevant authorities.	Relevant instructions/circulars issued by the Faculty; Lists course/module/ subject teams and positions; ToR of course/module/subject design and development committees; Samples of letters of invitation sent to subject experts; Relevant minutes and attendance sheets of course/ module/subject development committee meetings.	2

CONCLUSION

The systematic revision of the BScHons (Nursing) curriculum at Eastern University, Sri Lanka, involved a comprehensive process of needs assessment, educational environment assessment, programme outcome revision, course content update, course organisation, educational strategy selection, assessment system design, curriculum communication, educational process management, and quality assurance. By adopting a structured approach and incorporating innovative teaching and learning strategies, the revised curriculum aims to equip nursing students with the necessary knowledge, skills, and attitudes to excel in contemporary healthcare settings.

REFERENCES

- Smith CM, Horne CE, Wei H. Nursing practice in modern healthcare environments: a systematic review of attributes, characteristics, and demonstrations. *J Adv Nurs*. 2024;80(9):3481–98. <https://doi.org/10.1111/jan.16088>
- Frenk J, Chen LC, Chandran L, Groff EOH, King R, Meleis A, et al. Challenges and opportunities for educating health professionals after the COVID-19 pandemic. *Lancet*. 2022;400(10362):1539–56. [https://doi.org/10.1016/S0140-6736\(22\)02092-X](https://doi.org/10.1016/S0140-6736(22)02092-X)

3. Al-Worafi YM, Alsergai WM. Curriculum reform in developing countries: nursing education. In: Al-Worafi YM, editor. Handbook of medical and health sciences in developing countries: education, practice, and research. Cham: Springer International Publishing; 2023.
4. Harden RM. Ten questions to ask when planning a course or curriculum. *Med Educ*. 1986;20(4):356–65. <https://doi.org/10.1111/j.1365-2923.1986.tb01379.x>
5. O'Neill G. Initiating curriculum revision: exploring the practices of educational developers. *Int J Acad Dev*. 2010;15(1):61–71. <https://doi.org/10.1080/13601440903529927>
6. Youhasan P, Chen Y, Lyndon M, Henning MA. Assess the feasibility of flipped classroom pedagogy in undergraduate nursing education in Sri Lanka: a mixed-methods study. *PLoS One*. 2021;16(11):e0259003. <https://doi.org/10.1371/journal.pone.0259003>
7. Cooper Jeffrey B, Newbower Ronald S, Long Charlene D, McPeck B. Preventable anesthesia mishaps: a study of human factors. *Anesthesiology*. 1978;49(6):399–406. <https://doi.org/10.1097/00000542-197812000-00004>
8. McAleer SRS. What is educational climate? *Med Teach*. 2001;23(4):333–4. <https://doi.org/10.1080/01421590120063312>
9. Youhasan P, Sathaananthan T. Educational environment for undergraduate medicine and nursing programme at Eastern University, Sri Lanka; students' perceptions. *OUSL J*. 2016;11:23–35. <https://doi.org/10.4038/ouslj.v11i0.7341>
10. Spady WG. Outcome-based education: critical issues and answers. US: The American Association of School Administrators; 1994.
11. Youhasan P, Sivanjali M, Sathaananthan T. Outcome Based medical curriculum: features, standards and challenges. *Bangladesh J Med Educ*. 2019;10(1):34–8.
12. Wickramasinghe S, Peiris CN, Peiris S. Sri Lanka qualifications framework (SLQF) and significance in higher education. APQN AGM and Conference, Kunming, China; 2015.
13. Harden RM, Sowden S, Dunn WR. Educational strategies in curriculum development: the SPICES model. *Med Educ*. 1984;18(4):284–97. <https://doi.org/10.1111/j.1365-2923.1984.tb01024.x>
14. Gunawardena C, editor. Improving the quality of university education in Sri Lanka: an analysis of Quality Assurance Agency Council's reviews. *Sri Lanka J Soc Sci*. 2017;40(1):3. <https://doi.org/10.4038/sljss.v40i1.7497>
15. Warnasuriya N, Coomaraswamy U, Abeygunawardena H, Nandadeva BD, Silva Nd. Manual for review of undergraduate study programmes of Sri Lankan Universities and Higher Education Institutions. Sri Lanka: University Grants Commission Sri Lanka; 2019. Available from: <https://www.eugc.ac.lk/qac/downloads/PR-manual-final-1-Version-3-amended-28-Dec-2015-3.pdf>