



Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



CURRICULUM REVIEW HANDBOOK and CURRICULUM REVIEW TEMPLATES (Volume 1: Overview of the Curriculum Review Process)

**ASSURING QUALITY HIGHER EDUCATION IN SIERRA
LEONE, 2019**





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



This handbook was created through the Assuring Quality Higher Education in Sierra Leone project. Assuring Quality Higher Education in Sierra Leone is bringing together higher education institutions across Sierra Leone to improve quality management in higher education and support the introduction and implementation of outcome-based education. It aims to bring about a student-centred focus within higher education across the country, leading to a more responsive and capable national workforce.

The partnership is led by the University of Sierra Leone (Sierra Leone), working with Njala University (Sierra Leone), the University of Makeni (Sierra Leone), Milton Margai College of Education and Technology (Sierra Leone), Freetown Teachers' College (Sierra Leone), Ernest Bai Koroma University of Science and Technology (Sierra Leone), Eastern Polytechnic (Sierra Leone), Tertiary Education Commission (Sierra Leone), Sierra Leone Institution of Engineers (Sierra Leone), King's College London (UK), the 50/50 Group (Sierra Leone), INASP (UK), and the University of Illinois Urbana-Champaign (US).

AQHEd-SL is funded by the UK's Foreign, Commonwealth & Development Office (FCDO) as part of its SPHEIR (Strategic Partnerships for Higher Education Innovation and Reform) programme to support higher education transformation in focus countries in Sub-Saharan Africa, Asia, and the Middle East.





1. CURRICULUM REVIEW

1.1 Introduction

Definition of Curriculum Review

Curriculum Review (CR) is a critical, evidenced – based examination of academic programs for the purpose of optimizing student learning and student experience, led collaboratively by academic staffs who teach in the program.

CR's are a formative component of the overall quality assurance strategy of a university and are focused on the continuing development of students' learning experiences.

The CR process will generate an action plan for improving the program and the impact of the review will be determined by evidence of implementation success.

Curriculum Review should normally take place on a 5-to-7-year cycle. The Deputy Vice Chancellor should normally work with the Dean of Faculty to establish a cycle of curriculum reviews for programs within a department.

1.2 Reasons for Curriculum Review

The need to examine a curriculum may arise from any of the following reasons:

- A new program is needed to meet a new need;
- Priorities within the department have changed;
- The original focus has been lost and years of rapid growth need to be rationalized;
- The curriculum must meet newly articulated criteria and standards (e.g. for professional accreditation);
- Employers of the graduates, professional partners, Faculty members, current students and Graduated students are frustrated or dissatisfied and have a sense that things could or should somehow be better.



1.3 Benefits of Curriculum Review

The main benefit of curriculum review is to improve the student learning experience by:

- Articulating the strengths of the program;
- Identifying specific actions to address gaps within an academic program;
- Increase discussion and collaboration between lecturers of the program and other stakeholders who play a role in the program;
- Improve teaching and learning practices;
- Provide evidence to guide decision – making within a program;
- Understand the relationship among courses within a program (Curriculum Mapping).

1.4 Getting Started – What Process?

Two main kinds of approaches that can be used to make programmatic changes are:

- **Democratic Process:** A relatively large committee is created with representation from the Department/Faculty/University, Stakeholders such as employers from the respective industry, professional bodies, and accreditation bodies, in a process of consultation and design (Stakeholder Engagement), followed by a coordinating or implementation committee (Sector Skills Council in our case in Sierra Leone) to oversee and monitor program changes.
- **Full Faculty Involvement:** The Dean initiates a process of discussion and planning usually in a series of retreats or extended sessions involving the whole faculty or department. Faculty – wide commitment to substantial change is non – negotiable in this approach and much effort must be invested in encouraging that commitment. This approach is the most



Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



demanding of faculty and administrators alike but holds the most promise for effecting substantial and systemic change.

1.5 Mission, Vision, Values

If you do not know where you are going, or why, it is difficult to figure out the best way to get there. If you do not know what kind of building you are constructing, or what its purpose is, it will be difficult to know how to begin or what materials to choose. So, with education, when you begin to think seriously about curriculum, whether at the level of a course, a module, or an entire program, you will find yourself asking some basic questions — *What do we want students to get out of this course (or module or program) anyway? What do we want our graduates to know and be able to do? How can we make it happen?*

Answers to such questions are not always readily agreed upon. That is why curriculum renewal is best begun with discussion of foundational issues. Before a meaningful and cohesive curriculum can be planned and put into place, everyone should be clear about the Institution/Department/Faculty mission, vision for the future, and values.

Mission: why the department exists, its *raison d'être*, its unique role and contribution to the academy, the profession, society.

Vision: an image for the future of the department; a realistic, credible, attractive future that is better in important ways than what exists.

Values: the priorities that shape the actions of everyone in the department with respect to students, learning, relationships, the profession, society.

Discussion of questions such as the following can start the visioning process:

- What are our current strengths? Of what are we proud?
- What attracted us to this department? Why do we stay?
- What challenges do we face as we consider the future of our program?





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- What are our deepest concerns?

Example of a clear and comprehensive statement:

Mission: “We will develop in dental professionals the knowledge and skills to provide exemplary care to the diverse communities that we serve. We will influence the future of undergraduate and postgraduate dental education through scholarly inquiry, innovation and research”.

Vision: International recognition through excellence in dental education, research, and patient care.

Values: As leaders who are committed to exceptional results, we embrace the following core values:

- Compassionate, patient – centered care;
- Commitment to professionalism and integrity;
- Nurturing leaders through life – long learning, problem – solving skills and critical inquiry;
- Teamwork and collaboration
- Respect for diversity in culture and perspectives
- Accountability to our community of scholars and to the public.



2. CURRICULUM REVIEW PROCESS

2.1 Background

Curriculum review is an ongoing, cyclical, and analytical process that is essential to ensuring quality in all academic programs. The cyclic program reviews provide an opportunity for academic programs to articulate or update their degree level expectations (DLEs) and discipline specific learning outcomes. The goal is to ensure that existing and new programs continue to offer students learning experiences that are transformational, inspiring, and intellectually challenging. Regardless of the reason for initiating this process, it usually progresses from evaluating an existing program, to designing an improved, to implementing the changes and back to evaluating the revised program.

2.2 Undergraduate Degree level Expectations (DLEs)

These are clear declarations of common graduate attributes for undergraduate degrees. For the evaluation of undergraduate degree programs in our universities, there must be broad criteria against which the programs can be measured. These are called DLEs. Degrees should be awarded to students who have these attributes. The main DLEs for undergraduate degree programs are:

- **Depth and Breadth of Knowledge** - students must have demonstrated:
 - a) A general knowledge and understanding of many key concepts, methodologies, theoretical approaches, and assumptions in a discipline;
 - b) A broad understanding of some of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines;
 - c) An ability to gather, review, evaluate and interpret information relevant to one or more of the major fields in a discipline;
 - d) Some detailed knowledge in an area of the discipline;



- e) Critical thinking and analytical skills inside and outside the discipline;
- f) The ability to apply learning from one or more areas outside the discipline;
- **Knowledge of Methodologies** – students must have demonstrated:
 - a) An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:
 - i. Evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques; and
 - ii. Devise and sustain arguments or solve problems using these methods.
- **Application of knowledge** – students must have demonstrated:
 - a) The ability to review, present, and interpret quantitative and qualitative information to:
 - i. develop lines of argument;
 - ii. make sound judgments in accordance with the major theories, concepts, and methods of the subject(s) of study;
 - b) The ability to use a basic range of established techniques to:
 - i. analyze information;
 - ii. evaluate the appropriateness of different approaches to solving problems related to their area(s) of study;
 - iii. propose solutions;
 - c) The ability to make use of scholarly reviews and primary sources.





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- **Communication Skills** – students must have demonstrated:
 - a) The ability to communicate accurately and reliably, orally and in writing to a range of audiences.
- **Awareness of limits of knowledge** – students must have demonstrated:
 - a) An understanding of the limits to their own knowledge and how this might influence their analyses and interpretations.
- **Autonomy and professional capacity** – students must have demonstrated:
 - a) Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:
 - i. the exercise of personal responsibility and decision-making;
 - ii. working effectively with others;
 - b) The ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of further study; and
 - c) Behavior consistent with academic integrity and social responsibility.

These DLEs can be used as a framework within which to review a program or construct a new one. *All degree programs should map reasonably well on to these criteria.*

2.3 Essential Considerations for the Process

The essential elements for the process are:

1. Issue/problem/need is identified (what is the issue),





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



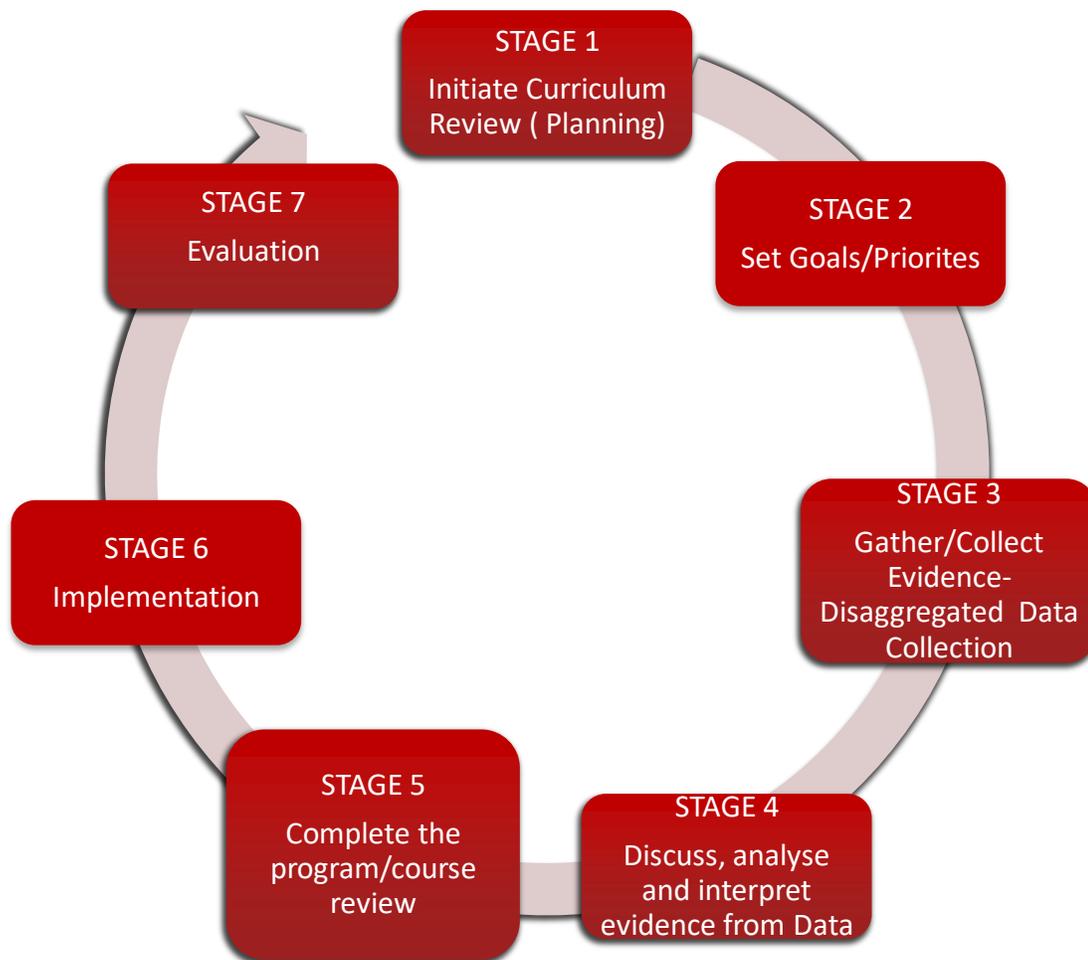
2. Characteristics and needs of students (who are the target audience),
3. Changes intended for students (intended outcomes/objectives (i.e., what the students will be able to do),
4. The important and relevant content (i.e., what will be taught),
5. Methods to accomplish intended outcomes (i.e., how),
6. Evaluation strategies for methods, content, and intended outcomes (i.e., establishing what works?).

A successful program review is:

- Collaborative,
- Evidenced – based (multiple sources of data),
- Student learning focused,
- Discipline and context specific,
- A springboard to continuous improvement,
- Inclusive with equity and gender considerations



2.4 Cyclical Curriculum Review Stages



2.4.1 Narrative of the Stages

Stage 1 – Initiate Curriculum Review, Planning.

The Dean initiates a process of discussion and planning usually in a series of retreats or extended sessions involving the whole faculty or department. The planning phase lays the foundation for all the curriculum development steps. The steps include:

- Identify Issue/Problem/Need

The need for curriculum review usually emerges from a concern about a major issue or problem of one or more stakeholders. This section explores some of the questions that need to be addressed to define the issue and to develop a statement that will guide the selection of the members of a curriculum development committee. This is when the issue statement also serves to broadly identify the scope (what will be included) of the curriculum content. This is when stakeholders are engaged (Stakeholder Engagement Process). The stakeholders should include:

- representatives of the target group (the students);*
 - lecturers who will be implementing the curriculum;*
 - higher education stakeholders including Tertiary Education Commission (TEC);*
 - subject matter experts;*
 - private and public sector employers of the graduates.*
- Needs assessment survey

A needs Assessment survey should be conducted, and the data and information obtained should be analyzed to inform the deliberations of Stakeholders to identify the issues and the problems. The procedure should involve surveys and interviews with targeted learners/students, lecturers, and employers in the private and public sector. The process also provides information to evaluate course/program learning outcomes (educational objectives) based on facts; it also provides baseline data to



Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



evaluate the achievement of intended outcomes. The process identifies the nature and scope of the knowledge gaps.

- Form a Curriculum Development Committee

Once the nature and scope of the issue has been broadly defined from the Stakeholder Engagement process, form a curriculum development committee; in our case in Sierra Leone, it is the *Sector Skills Councils*. Define the roles and functions of team members, ensure a careful consideration for selecting members of the curriculum development team, and emphasize the principles of collaboration and teamwork. The goal is to obtain expertise for the areas included in the scope of the curriculum content. This committee should examine:

- What is currently being taught in the curriculum;
- Obtain information on instructional materials and facilities as well as assessment methods in use;
- Obtain information on new instructional materials.

Stage 2 - Set Goals/Priorities

(a) Program Visioning: clarify your mission and vision and give thought to your values.

(b) Decide on the “Guiding Questions” that will guide the CR process. Different faculties will be interested in exploring different aspects of their curriculum, from broad encompassing questions to specific curricular concerns. Identifying questions to guide the CR process provides a focus for the entire process. The guiding questions in the CR process will define the program investigation and support the identification of the type of evidence data to collect during the process. It is basically going from Questions to Answers.

Examples of guiding questions:

Please note that these questions are not exhaustive; any relevant question can be added.

1. General questions:





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- What are the strengths of the program?
- How are program – level learning outcomes (PLOs) addressed in specific courses of the program? Are there any program PLOs that are not adequately addressed?
- Looking at the scope and sequence of the courses within the program, are there any gaps and/or overlaps in learning outcomes? If so, where?
- What resources and infrastructure will enable us to offer our curriculum effectively and meet the learning needs of our students?
- How will we ensure the curriculum is equitable in terms of access, content, pedagogy, and outcomes?

2. Purpose of the program:

- How current is the program? What is being emphasized? Are we preparing graduates for traditional and/or emerging roles?
- Is the profession or workplace satisfied with our program?
- Has the program responded appropriately over the years to changing external, social, or workplace needs and challenges?
- What careers do graduates of the program go on to have?
- How can we make the program more innovative?

3. Students:

- Who are our students? Are they learning what we intend them to learn? How do we know?
- Are students satisfied with our program?





- Why is there so much drop-off in registration after the introductory course? Why do students decide not to continue in the discipline?
- What aspects of the program are problematic for students and how might we address them?
- What do students want out of the program? What are their career goals?
- What percentage of alumni goes on to graduate studies at our institution?

4. **Student learning experiences:**

- How are we connecting theory to practice? What improvements should be made in this area?
- What teaching methods are currently being used? Is there sufficient diversity?

5. **Student assessment:**

- To what extent do student assessment strategies across the program support and capture student learning? Is there a need for more diversity of student assessment strategies used in the program?
- How do we approach formative feedback across the program?

6. **Prerequisites:**

- Do we have the right prerequisites for upper-level courses?
- Are more prerequisite courses needed for students to be successful in upper-level courses? Less?





- Is a lack of prerequisite courses in certain upper-level courses problematic for students in terms of their success in certain upper-level courses? Do they have the necessary understanding in order to succeed in these courses?

7. Content coverage:

- Are students getting opportunities to acquire foundational knowledge in the field?
- Is there a balance between foundational knowledge/ content and other curricular concerns such as critical thinking and communication?
- To what extent does the program facilitate student learning of (writing skills, critical thinking, professionalism, innovation, research skills or other initiative or strategy being targeted)? How can improvements be made?

8. Faculty/departmental and Institutional priorities:

- How does our program align with graduate attributes, at the faculty and/or institutional level?
- Does our program align with strategic priorities?
- What are our priorities regarding technology integration into teaching and learning?
- How is experiential learning enacted in the program and what opportunities exist to further incorporate it?

(c) Develop/Validate the Program/Course Learning Outcomes: Once the issue is defined, the curriculum team is formed, the needs assessed, analyzed, and prioritized, the next step is to refine and restate the issue, if needed, and develop the intended outcomes or educational objectives. An intended outcome states what the learner will be able to do as a result of participating in the curriculum activities. Learning Outcomes are direct statements that describe the knowledge, skills,





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



and habits of mind that students are expected to reliably demonstrate after successful completion of a course/program. Statement describing the learning that should be demonstrated by the end of the program/course, e.g. “By the end of this program, successful students will be able to “. Choose action verbs to complete: e.g. *Apply, Compare, Explain, Design* (See Section on Learning Outcomes).

Stage 3 – Gather/Collect Evidence - Disaggregated Data Collection

This process should be led by the respective cluster leads with support from the Project Coordinating Unit (PCU), MEL officer, Project Officers, Quality Assurance (QA) officers.

Begin to gather disaggregated data (Gender, Age, Persons with Disabilities (PWDs)) about where you are now. The guiding questions in the CR process will define the program investigation and support the identification of the type of evidence data to collect during the process.

Consider the potential sources of information and the methods of gathering them as listed below:

1. Methods:

- Surveys
- Questionnaires
- Focus groups
- Interviews
- Open forums

2. Informants:

- Faculty members
- Current students
- Graduated students





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- Graduate students
- Alumni
- Employers
- Field Partners
- Professional partners

3. Student Artifacts:

- Collection of student work (portfolios, projects, art pieces, other products)
- Performance/exhibits/demonstrations

4. Test Results:

- External/professional exams
- Standardized tests
- Class tests
- Final year projects and comprehensives
- Interviews and surveys: Course evaluations
- Exit interviews
- Survey of graduates
- External review: external examiners
- Peer review

5. Output of curriculum mapping - used to determine where, when, and how learning outcomes are taught and assessed within the program.

Stage 4: Collaboratively discuss, analyze, and interpret evidence from data:





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- Use the data collected to inform meaningful, collaborative discussions to inform decisions made about the program.
- During the analysis phase of the CR process, data collected from the curriculum mapping process and all the surveys, are discussed. These discussions guide decisions on what direction the faculty or department would take to address the findings from the data.
- Involve people in the data analysis. People to involve might include faculty and students through a faculty retreat to which students' representatives should be invited, ask for volunteers to form a working group to take on the work of data analysis (consider student volunteers for this working group). An expert data analyst can be hired to lead this process.
- Do Strengths, Weaknesses, Opportunities, Challenges (SWOC) analysis.
- Identify strengths/redundancies/gaps.

Stage 5: Complete the program/course review to improve /enhance.

- Select the course contents; the needs of the learners are translated into intended outcomes and this guide content selection.
- Scope of the content of the curriculum material are identified.
- The sequence in which the content will be presented is planned.
- Prepare an outline of the contents that transforms the intended outcomes into the information or knowledge needed for the learner to achieve the desired outcome.
- Contents must contain what will be taught.
- Design experiential learning methods: this is a process of learning through experience. More specifically, it is defined as “Learning through reflection or doing”. Experiential learning is distinct from rote or didactic learning in which the learner plays a comparatively passive role. In experiential learning, the learner must be willing to be actively involved in the experience.





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- This stage includes a review of the characteristics of the learners, styles of learning, learning environment and facilities, delivery modes, and types and sources of resources and information.
- Produce the curriculum product - Once the content and experiential methods have been agreed upon, produce the curriculum materials.
- Submit CR materials for approval to Faculty Boards, Curriculum Committees of Institutions, University Senate and TEC, depending on the level of review.

Stage 6: Implementation

- Recruit and train facilitators - It is a waste of resources to develop curriculum materials if adequate training is not provided for facilitators to implement it; training of faculties in Pedagogical approaches is absolutely necessary.
- Implement curriculum.
- Conduct formative assessment of curriculum materials during the implementation.
- Monitor implementation - the continuous and systematic collection of data on specified indicators in order to provide stakeholders with indications as to the extent of progress and the achievement of objectives. Curriculum implementation must be monitored by Ministry of Education Field Staff, Quality Assurance (QA) personnel, Professional Institutions such as the Sierra Leone Institution of Engineers (SLIE)).

Stage 7: Evaluation

Curriculum evaluation is an assessment process of gathering and analyzing information from multiple sources in order to improve student learning in sustainable ways.

Why do Curriculum Evaluation?

Curriculum assessment can serve several major purposes:

- To identify aspects of a curriculum that are working and those that need to change





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- To assess the effectiveness of changes that has already been made
- To demonstrate the effectiveness of the current program
- To meet regular program review requirements
- To satisfy professional accreditations

How can the information gathered be used?

The information gathered as part of a curriculum assessment can be used to inform curriculum changes in several areas, including:

- Curriculum/Course Design
- Curriculum/Course Delivery
 - Assessment
- Learning Environment
- Other

Who can act as information sources when assessing curriculum?

- Students (new applicants, undergraduates, graduates, alumni)
- Faculty
- Teaching Assistants (TAs)
- Staff
- Employers
- Professional Associations (certification/accrediting bodies)
- Colleagues from similar programs elsewhere

What feedback methods can be used to assess curriculum?



3. RELEVANT ISSUES OF CURRICULUM REVIEW PROCESS

3.1 Learning Outcomes

A learning outcome is “an intended effect of the program educational experience that has been stated in terms of specific, observable, and measurable student performance” (Veltri, Webb, Matveev & Zapatero, 2011). They define the knowledge, skills, and attitudes that students should be able to attain by the end of a unit of study.

Learning Outcomes can be written at the program, course, or lesson level. Sometimes the term “objective” is used instead of learning outcome. However, for the purpose of this document, we will assume that the meaning of the term is the intended knowledge, skills, and abilities that students are expected to meet at the end of the instruction.

An example of a program is: *B.Eng. (Civil Engineering)*; a Course (Module) in the program can be *Design of Civil Engineering Structures*. A Lesson or Unit of Instruction of this course can be *Design of Reinforced concrete columns*.

Learning Outcomes can be depicted as follows, with the level of specificity increasing from Program Learning Outcome to Course Outcomes to Lesson Objectives:





Program – Level Outcomes (PLOs) – Program - level learning outcomes state the intended knowledge, skills, and abilities that students are expected to meet by the end of an academic course of study (Program). They are statements that communicate what is critical, intentional, and special about the program.

For example, a program - level learning outcome might be:

“By the end of the program, students will be expected to write an evidence – based research paper”.

Course Outcomes (COs) - Course learning outcomes are statements of what students should be able to accomplish after completing the course. They state the knowledge, skills, and attitudes that students should be able to attain by the end of the course. However, they are generally more specific than a program-level learning outcome, but not as granular as a lesson objective, and should be in alignment (map) with both.

An example of a course outcome that will map directly back to the program–level outcome above will be: *“By the end of the course, students should be able to find appropriate peer-reviewed academic articles to use in their written work”.*

Good learning outcomes focus on the application and integration of the knowledge and skills acquired in a particular unit of instruction (e.g., activity, course, program, etc.) Good learning outcomes are very specific and use active language – and verbs in particular that make expectations clear. This informs students of the standards by which they will be assessed and ensures that student and instructor goals in the course are aligned.

Lesson Objectives (LOs) – these are more specific than COs and involves what is specifically taught in a particular lesson/lecture.

An example of a learning objective that will map into the LO and CO will be: *“by the end of this lesson/lecture, students should be able to use a standard citation style in their writing”.*





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



A list of useful verbs for creating learning outcomes is arranged according to Bloom's Taxonomy of Educational Objectives, which identifies different cognitive domains associated with levels of learning.

When writing Learning Outcomes, keep in mind that Learning outcomes must be SMART (TT)

Speak to the Learner	Learning Outcomes should address what the Learner will know or be able to do at the completion of the course
Measurable	Learning Outcomes must indicate how learning will be assessed
Applicable	Learning Outcomes should emphasize ways in which the Learner is likely to use the knowledge skills gained
Realistic	All Learners who complete the activity or course satisfactorily should be able to demonstrate the knowledge or skills addressed in the outcome
Time – bound	The Learning Outcome should set a deadline by which the knowledge or skills should be acquired
Transparent	It should be easily understood by the Learner
Transferable	It should address knowledge and skills that will be used by the learner in a variety of contexts.



Bloom's Taxonomy with Sample Active Verbs.

Adapted from: Bloom B. S. (1956): *Taxonomy of Educational Objectives, Handbook 1: The Cognitive Domain*

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
acquire	arrange	apply	analyse	appraise	calculate
choose	categorize	calculate	appraise	argue	change
collect	change	change	break down	assess	combine
complete	chart	choose	classify	compare	compose
copy	compile	classify	combine	conclude	constitute
define	conclude	compute	compare	consider	create
describe	convert	conduct	contrast	contrast	derive
detect	defend	construct	criticize	critique	devise
distinguish	determine	demonstrate	deduce	decide	discover
duplicate	diagram	develop	defend	describe	document
find	differentiate	discover	detect	discriminate	explain
identify	document	employ	differentiate	explain	generalize
indicate	edit	generalize	distinguish	interpret	modify
isolate	estimate	manipulate	evaluate	judge	originate
label	explain	modify	formulate	justify	plan
list	extrapolate	operate	generate	recommend	produce
mark	formulate	organize	illustrate	relate	rearrange
match	generalize	predict	infer	standardize	relate
name	give example	prepare	outline	summarize	revise
order	illustrate	produce	paraphrase	validate	signify
outline	interpret	relate	plan		specify
place	organize	restructure	relate		synthesize
recall	paraphrase	show	save		tell
recognize	predict	solve	select		write
reproduce	prepare	transfer	separate		
select	relate	use	shorten		
state	summarize		structure		
underline	update		subdivide		

Definitions:

Remembering/ Knowledge - Ability to recall previously learned material.

Understanding/Comprehension - Ability to show a basic understanding of material.



Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Applying- Ability to apply learning in new situations.

Analyzing – Ability to support assessment through the use of evidence and arguments identifying causes and patterns.

Evaluating – Ability to judge the value of material for a given purpose or the validity of arguments.

Creating - Ability to create new content and structure; combining or grouping knowledge to come to new conclusions.





4. Curriculum Mapping (CM)

Curriculum mapping is the process of associating course outcomes with program – level learning outcomes and aligning elements of courses with a program, to ensure that it is structured in a strategic, thoughtful way that enhances student learning. CM makes associations or connections.

It provides an effective strategy for articulating, aligning, and integrating learning outcomes across a sequence of courses, and explicitly identifying to students, instructors, administrators, and external stakeholders how student learning outcomes are delivered within a degree program. As a visual approach, curriculum mapping can be used to analyze the underlying framework of a program.

Learning Outcomes are the backbone of Curriculum Mapping.

What is being mapped?

- Course outcomes to program-level learning outcomes
- Student assessments to course outcomes
- Teaching and Learning Activities (TLAs) to course outcomes
- Optional: Program committees can identify other things they want to map, such as faculty initiatives or a strategic focus. For example, they might want to map where writing skills are being developed throughout the program

As a source of information about your current program, a curriculum map can help to show what is being done in the program and when, where, and how. To keep a map from becoming unwieldy and overly detailed, it is often advisable to begin with one or two questions or a single focus.





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



A curriculum map will show where attention is heavily focused, and where there are gaps or overlaps.

Information for curriculum maps should be gathered from a number of sources. To help ensure consistency in use of language and concepts across courses, one person should gather and organize the data.

Course outlines, surveys of instructors, and instructor interviews are the primary sources of data for curriculum maps. Students who have taken the courses may be interviewed about their experience to provide yet another perspective on what is taught and what is learned in particular courses.

Program Learning Outcomes (PLOs) must be written before a department/faculty can do CM. Course outcomes must be written before an individual can map his/her course.

4.1 Benefits of Curriculum Mapping

The following are some benefits of CM:

- CM enhances standards of excellence in student learning
- Align the courses within a program with the program-level learning outcomes, teaching and learning activities, and assessment.
- Ensure graduates have opportunities to acquire desired knowledge, skills and abilities
- Evidence-based means of evaluating programs
- Account for program quality and for accreditation purposes
- Foster discussions about curriculum within a faculty or department
- Faculty are more engaged in discussions about the overall program goals when they see how their courses fit into the program
- Articulate tacit understandings about a program





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- Promote continuous improvement approach
- Document program strengths
- Identify specific actions to address gaps within an academic program

4.2 Curriculum Map Aligning Course Outcomes to Program- level Learning Outcomes (PLOs)

The PLOs are listed across the top. The lecturer/instructor lists his or her course outcomes down the left-hand side. The lecturer examines the course outcome and decides which of the PLOs it is associated with, to a MODERATE to STRONG degree, not a weak or peripheral one. Where there is alignment, the lecturer decides if the course outcome addresses the PLO at an introductory level (I); if the students are developing a higher level of competence (D); or if they are expected to show a more advanced level of expertise and sophistication in their learning (A).

The lecturer should continue to add all course outcomes to the chart and note the alignment to PLOs.

Aligning Learning Outcomes, TLAs, and Student Assessments

Note that two extra columns for teaching and learning activities (TLAs) and student assessments are added in order to align Learning Outcomes, Teaching and Learning Activities and Student Assessments. The instructor adds information on the TLAs being used in the course to support student learning of the course outcome, and how it is being assessed.





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Mapping can be done using paper – based approach either in **Word** or **Excel sheets** or by using **Online Survey tools (such as SurveyMonkey)**.

The main disadvantage of paper – based approach is that no report is automatically generated; someone has to manually aggregate the data; the higher the number of courses that are mapped, the higher the workload; which can make it very expensive. The advantage though is that it is flexible to structure the mapping process to suit your department or faculty.





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
Assuring Quality in Higher Education in
Sierra Leone



APPENDICES

A1: TEMPLATES

ALL TEMPLATES MUST HAVE THE FOLLOWING OPENING STATEMENT OF POLICY ON DISCRIMINATION AND SEXUAL HARRASSMENT AT THE TOP:

“The University of..... is committed to fostering an environment free from discrimination, including sexual or gender-based harassment or misconduct. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or gender identity.

Behaviors including sexual harassment, sexual misconduct, dating violence and stalking, as well as retaliation for reporting any of these acts are not tolerated and will be punishable according to law.

Any of these incidences can be reported to the Dean of Faculty, Registrar or Deputy Registrar “.





A1.1 Course Outcomes to Program-level Learning Outcomes

Course Number and Name:	Teaching & Learning Activities (Identify)	Program-level Learning Outcome #1	Program-level Learning Outcome #2	Program-level Learning Outcome #3	Program-level Learning Outcome #4	Program-level Learning Outcome #5	Program-level Learning Outcome #6	Program-level Learning Outcome #7	Program-level Learning Outcome #8	Student Assessments
Course Outcomes										

Examples: Teaching and Learning Activities	Examples: Student Assessment
Lecture, demonstrations, reading, discussion, debates, problem solving, case studies, group projects, inquiry, essays, journals, research projects, field trips, practicum, simulations	Exam with closed questions (multiple choice, T/F), Exam with open-ended questions (short answer, essay), report, research paper, portfolio, journal, written assignment, presentation, project, skill demonstration





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Competency Scale:

I - Introduced: Key ideas, concepts or skills related to the learning outcome are introduced and demonstrated at an introductory level. Instructional and learning activities focus on basic knowledge, skills and/or competencies and entry-level complexity.

D - Developing: Learning outcome is reinforced with feedback; students demonstrate the outcome at an increasing level of proficiency. Instructional and learning activities concentrate on enhancing and strengthening existing knowledge and skills, as well as expanding complexity.

A - Advanced: Students demonstrate the learning outcome with a high level of independence, expertise and sophistication expected upon graduation. Instructional and learning activities focus on and integrate the use of content or skills in multiple levels of complexity.

Note that Course Outcomes must be stated in complete sentences.





Strategic Partnerships for Higher Education
 Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
 Sierra Leone**



A1.2 SAMPLE CURRICULUM MAPPING TEMPLATE:

Course Outcomes to PLOs: International Relations (Undergraduate Program)

		Program-level Learning Outcomes (PLOs)									
Your Name:	Teaching and Learning Activities	1. Develop an interdisciplinary knowledge and understanding of	2. Develop an enriched understanding of a theme and/ or region of interest	3. Apply theories, concepts, and methods from different disciplines to explain real world situations	4. Develop my critical thinking skills	5. Develop my ability to conduct independent research	6. Develop my ability to evaluate arguments and evidence	7. Marshal evidence from a wide range of appropriate sources, to construct an informed assessment or	8. Develop clear and effective written presentation skills	9. Develop clear and effective oral presentation skills	Student Assessments
Course Number:											
Course Outcomes											





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
Assuring Quality in Higher Education in
Sierra Leone



2. The University/Institution is committed to complying with all relevant legislation regarding access and equity for people with disabilities; providing services and support for students with disabilities to enable them to participate fully and independently in the academic, cultural, and social life of the university; providing access for staff with disabilities to enable them to participate fully and independently in all aspects of their work and career development.

Thank you for your participation!

Question Title

1. Your name:

Question Title

2. Email address:

Question Title

3. Course code and number (e.g. EENG 201):

Question Title

4. Course level:

- 200
- 300
- 400
- 500
- 600





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Question Title

5. When was the last time you taught this course?

Question Title

6. Course requirement status (check all that apply):

- Required for BA
- Required for BSc
- Required for Honors
- Can fulfill a requirement
- Optional course
- Not sure

Question Title

7. Does this course have labs?

- Yes
- No

Question Title

8. Is this a seminar course?

- Yes
- No

Question Title

9. Is this a writing intensive course?

- Yes





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Question Title

11. Map the course outcome listed above to one or more program-level learning outcomes:

Knowledge of theories
and concepts

Problem solving

Evaluate qualitative and
quantitative information

Communication

Apply knowledge

Research

(course
outcome)

(course outcome)
Knowledge of theories
and concepts menu

(course outcome)
Problem solving menu

(course outcome)
Evaluate qualitative and
quantitative information
menu

(course outcome)
Communication menu

(course outcome) Apply
knowledge menu

Question Title

12. Indicate the teaching and learning activities associated with this course outcome (check all that apply)

- Direct instruction: e.g. lecture, presentation, demonstration
- Interactive instruction: e.g. brainstorming, discussions, lab, and study groups
- Indirect instruction: e.g. case studies, inquiry, problem solving





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- Independent study: e.g. essays, homework, problem solving
- Experiential: e.g. practicum and internships, projects, observations
- I do not teach the learning outcome in this course

Question Title

13. Indicate the ways in which you assess student learning of the course outcome (check all that apply):

- Final exam
- Quiz or midterm
- Paper, essay, or written assignment
- Problem set
- Project
- Portfolio
- Reflection
- Presentation or oral assignment
- Skill demonstration
- Performance
- Authentic assessment
- I do not assess the learning outcome in this course.
- Other (please specify)

Question Title

14. Indicate the way/s in which you account for equity and inclusion in your lectures and assessments of students in this course.

- Encourage participation of all students (male, female, disabled)





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- No discrimination under any circumstance
- No form of sexual or gender – based harassment or misconduct

Question Title

15. Please enter your second course outcome:

Question Title

16. Map the course outcome listed above to one or more program-level learning outcomes:

Knowledge of
theories and
concepts

Problem solving

Evaluate qualitative
and quantitative
information

Communication

Apply knowledge

Research

(course
outcome)

(course outcome)
Knowledge of
theories and
concepts menu

(course outcome)
Problem solving
menu

(course outcome)
Evaluate qualitative
and quantitative
information menu

(course outcome)
Communication
menu

(course outcome)
Apply knowledge
menu





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Question Title

17. Indicate the teaching and learning activities associated with this course outcome (check all that apply):

- Lecture or presentation
- Readings
- Discussion
- Lab
- Problem solving
- Tutorial groups
- Group work/ group project
- Online discussions
- Online tutorials
- Writing activities
- Homework
- Research projects
- Field trip
- Conducting an experiment
- Simulations
- Observations
- Research
- Internship or practicum
- Peer evaluation
- I do not teach the learning outcome in this course.
- Other (please specify)





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Question Title

20. Map the course outcome listed above to one or more program-level learning outcomes:

Knowledge of theories and concepts

Problem solving

Evaluate qualitative and quantitative information

Communication

Apply knowledge

Research

(course outcome)

(course outcome) Knowledge of theories and concepts menu	(course outcome) Problem solving menu	(course outcome) Evaluate qualitative and quantitative information menu	(course outcome) Communication menu	(course outcome) Apply knowledge menu	

Question Title

21. What are the major concepts and theories in this course?

Major concept #1

Major concept #2





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Major concept #3

Major concept #4

Major concept #5

Question Title

22. In general, do students have the prerequisite knowledge and skills to be successful in this course? Please comment.

Question Title

23. What learning technologies are used in this course?

Question Title

24. Which of the following high-impact educational practices are emphasized in this course?

- First-year seminars and experiences
- Common intellectual experiences
- Learning communities
- Writing-intensive courses
- Collaborative assignments and projects





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- Undergraduate research
- Diversity/ global learning
- Service learning, community-based learning
- Internships/industrial attachment
- Final year projects and Dissertation writing
- None of the above

Done





A1.5 Course / Program Information Template

4.1 Course/Module Information Template

University/College/ Institute			
Faculty			
Department			
Module Title:		Module Code:	Credit Hours:
Semester:		Year:	
Department:			
Instructor:	Phone #	Instructor's Email:	Office Rm #
Time:	Days:		Location:

4.2 Course / Module Details

Learning Outcomes:

1. By the end of this course, students will be able to.....
- 2.
- 3.
- 4.

Module Contents (Topics in order in which they will be delivered and short description of each topic):

Pre-requisites:





Teaching and Learning Activities/Method of Delivery:

Assessment Strategy:

Assessment Method	Point Value (Contribution to Total Mark (%))
Attendance	
Class Work	
Assignments	
Group Work	
Presentations	
Laboratory/Workshop	
Final Exam	
Total Point Value	100%

Recommended Texts / References / Resources:

Attendance Policy and In – Class Expectations (turning in assignments late, respect for other students, use of technology during class time, etc.)

Grading Criteria:





Discrimination and Sexual Harassment Policy:

The University/Institution of is committed to fostering an environment free from discrimination, including sexual or gender-based harassment or misconduct. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or gender identity.

Behaviors including sexual harassment, sexual misconduct, dating violence and stalking, as well as retaliation for reporting any of these acts are not tolerated and will be punishable according to law.

Any of these incidences reported to the Dean of Faculty, Registrar or Deputy Registrar will be dealt with sternly according to university code of conduct.

Disability Policy:

The University/Institution is committed to complying with all relevant legislation regarding access and equity for people with disabilities; providing services and support for students with disabilities to enable them to participate fully and independently in the academic, cultural, and social life of the university; providing access for staff with disabilities to enable them to participate fully and independently in all aspects of their work and career development.

General Policies: (such as student conduct, plagiarism, academic dishonesty, exam policies, etc.)





Checklist for compiling Course/Program Information

A checklist of contents of a Course /Program Information sheet which should be made available for students are as follows:

1. Name of Institution
2. Mission and vision of the Institution
3. Faculty/School, Program name, Degree designation
4. Aims or Goals & Objectives for School / Faculty
5. Target group of the program
6. Program entry requirements
7. Program duration and minimum credit hours for graduation
8. Program Learning Outcomes
9. Content/subject outline of the program by year / semester.
10. Teaching and learning strategies,
11. Assessment methods of the program
12. Grading system and Grade Point Average
13. Progression requirement within the program
14. Resources
15. Compliance with equal opportunity including gender equity etc.
16. Monitoring and Evaluation
17. Review of the program (e.g. every 5 - 7 years)
18. Details of course/module content. For each course/module:
 - a) Course level / title / code /credit hours
 - b) Course pre-requisites (if applicable)
 - c) Staff / department responsible for course
 - d) Course aims and objectives
 - e) Course learning outcomes
 - f) Course content
 - g) Method of delivery
 - h) Assessment methods (formative and summative) and % of marks awarded for different elements
 - i) Course requirements (i.e., number assignments required / hours attended)
 - j) Staff contact details and availability
 - k) Reference list

Also to be included:

- Cross reference to Institution regulations and policies



Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



NOTE:

Each Institution can customize its own Course Information.

Template and this should be made available to students of the course/program.

A1.6 SYLLABUS TEMPLATE

A more detailed syllabus for the information of students should be prepared using this Template, which can also be customized by each Institution.

Course Number and Name:

Semester, Year:

Course Units/Credit Hours:

Instructor Name and Contact Information:

Office hours:

Course Prerequisites:

Course Overview and Description:

Course Learning Goals:

Learning Outcome 1:

Learning Outcome 2:

Learning Outcome 3:





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Required Readings and Resources: texts, other readings, videos, etc.

Optional/Recommended Readings and Other Learning Resources:

Assignments and Grading: quizzes, exams, papers, etc.

The course grade will be based on the following elements:

Assignment	Point Value
Total possible points	

Letter Grade: (how a grade is determined by point value or percentage)

Major Assignments: (description of the assignments)





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



Extra Credit Policy (if any):

Participation Policy: (what constitutes class participation and how that be assessed)

Attendance Policy and In-class Expectations: (turning in assignments late, respect for other students, use of technology during class time, etc.)

General Policies: (such as student conduct, plagiarism, academic dishonesty, exam policies, etc.)

Schedule: (including exam dates, assignment due dates, other class events)

Week	Day/date	Session topic	Readings	Assignments/ Activities	Due
1					
2					
3					
4					
5					
6					
7					
8					
9					





10					
11					
12					
13					
14					
15					
		Final Exam			

A1.7 LESSON PLAN TEMPLATE

Course Name and Number:

Instructor:

Lesson Day/Date:

Lesson title:

Lesson Duration:

Lesson Learning Outcomes/Goals/Objectives and Associated Tasks:

- 1.
- 2.
- 3.





Strategic Partnerships for Higher Education
 Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
 Sierra Leone**



Materials and Equipment:

References:

Take Home Tasks:

Tasks and Activities for each lesson/unit of lecture:

Time	Teaching and Learning Activity	Resources

Notes to self about this lesson:





A2: SURVEY/FEEDBACK EXAMPLES

A2.1 NEEDS ASSESSMENT SURVEY/INTERVIEWS:

To be conducted with Students, Lecturers, Employers (Private and Public Sector)

1. University Student Feedback Survey

University Feedback Survey template for students should be designed with the purpose of collecting effective feedback from the students related to various attributes about the college and the course they are enrolled in. The Questionnaire template should be designed by a team of experts and can be customized and modified to suit the needs of a college/university. This survey consists of questions that will help colleges understand what they are doing good already and what are the areas of improvement they need to focus on.

Feedback is the key to making informed decisions. If universities, colleges or for that matter any institution does not receive feedback then chances are bleak that they will be able to take the necessary action. Feedback is an organized system of providing the right amount of information to the concerned authority to make sure that timely actions are taken to constantly make progress.

2. University Exit Survey:

University Exit Survey should be designed to carry questions to collect information from students who are exiting or have exited university, their current situation, career goals and if they have any plans related to further education. In the survey template, there should be a mix of demographic and feedback questions. This questionnaire should cover in detail, questions related to general preparation for life, critical thinking skills, quantitative reasoning skills, written and oral skills etc. for students to be able to have enough skill sets to be job ready.

3. Data for curriculum maps

These can be obtained from:





Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- i. Interviews/Surveys of Lecturers of the courses.
- ii. Course Outlines
- iii. Students who have taken the course (get their experience to provide perspective on what was taught and what was learned in a particular course).

A2.2 SELECTION OF STUDENT FEEDBACK SURVEY QUESTIONS

An example of a student feedback survey with some suggested questions:

1. Considering your overall experience with the college, on a scale of 1 – 10, how likely are you to recommend this college to your family or friends?
2. Please select your age category:
 - 18 years
 - 18 – 25 years
 - 25 – 34 years
 - 34 – 54 years
 - 54 and above
3. Please select your Gender
 - Male
 - Female
 - Others
 - Rather not disclose
4. Please indicate any Disability:

5. What is your Marital Status?
 - Single
 - Married
 - Divorced
 - Separated
 - Widowed



Strategic Partnerships for Higher Education
Innovation and Reform (SPHEIR)
**Assuring Quality in Higher Education in
Sierra Leone**



- Rather not disclose
- 6. What is your classification in the college?
 - First year
 - Second year
 - Third year
 - Fourth year
 - Honors
 - Diploma
- 7. Please mention the course name that you are pursuing in this college?

8. Please select the most appropriate option: (**Can add more options**)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Lecturer is well – trained and deliver the syllabus efficiently					
Lecturer is intimidating and has inappropriate personal behavior					
The library has all the necessary reading and research material					
The college has well – equipped computer access facility					
Lecturer is positively understanding, reliable and helpful					





Lecturer help me with research and projects					
---	--	--	--	--	--

9. How satisfied are you with the university campus and its facilities?

- Extremely satisfied
- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied
- Extremely dissatisfied

10. If you had to pursue another course, would you come back to this college?

- Definitely, Yes
- Possibly , Yes
- Probably, No
- Definitely , No

