



LOMA LINDA UNIVERSITY



# ASSESSMENT GUIDE

*Office of Educational Effectiveness*

*Updated August 1, 2022*



## **Publishing Note:**

**The Guide is updated periodically and is available online. Addendums with information pertinent to the current academic year will also be posted at:**

*<https://home.llu.edu/academics/office-of-provost/departments-and-divisions/educational-effectiveness/assessment>*

---

## Editing & Design

*Dustin Jones*, Previous Associate Director of Public Relations

Cover design

*Marilyn Eggers*, Previous OEE Director & Associate Provost

Editor, designer

*Janelle Carillo*, Office of Educational Effectiveness Program Manager

Assistant editor, designer

Developed in collaboration with [Loma Linda University Assessment Committee](#)



---

# Resource and Contact List

---

## Office of the Provost

- **Ronald Carter, PhD, Provost**  
Magan Hall 110  
Ext. 87616

*Provides support for Deans and Academic Deans, incorporates information into the University Strategic Plan.*

## Assessment Committee

- **Donna Gurule, DrPH, Associate Dean for Academic Administration,**  
SPH Ext. 44598  
[dgurule@llu.edu](mailto:dgurule@llu.edu)
- **Natalie Hohensee, DDS, MACM**  
Assistant Professor, SD Ext. 44598  
[nhohensee@llu.edu](mailto:nhohensee@llu.edu)

*Provides consultation for all stages of the assessment process.*

*Provides consultation for all stages of the assessment process.*

## Office of Educational Effectiveness

- **Ken Nelson, MD, MS**  
Director  
Magan Hall 104  
Ext. 44195  
[wknelson@llu.edu](mailto:wknelson@llu.edu)

*Provides assistance for all stages of the assessment process.*

- **Janelle Carillo, MBA**  
Program Manager  
Magan Hall 104  
Ext. 15042  
[assessment@llu.edu](mailto:assessment@llu.edu)

*Supports assessment and program review.*

- **Diane Mattheson, MAT**  
Academic Liaison  
Magan Hall 101  
Ext. 55896  
[edmattheson@llu.edu](mailto:edmattheson@llu.edu)

*Supports assessment and program review.*

# Table of Contents

Introduction to Guide .....	3
LLU Institutional Learning Outcomes (ILOs) and Assessment Strategy .....	4
Mission Focused Learning Outcomes.....	4
Professional Institutional Learning Outcomes .....	6
Professional ILOs in Watermark’s LiveText and via™ .....	7
Program Assessment Plan.....	8
Program Learning Outcomes (PLOs) .....	8
Performance Indicators for ILOs and PLOs.....	10
Curriculum Map.....	12
Assessment Matrix .....	14
Watermark’s LiveText and via™ .....	16
LLU Annual Reports .....	17
Annual Faculty Report (Faculty Portfolio).....	17
Institutional Learning Outcomes Assessment Report (AMS tab: “Learning Outcomes Analysis) .....	20
Annual Action Plan Report.....	22
Office of Educational Effectiveness Contact Information .....	24
<b>Appendices .....</b>	<b>25</b>
Assessment Resources .....	26

Professional Institutional Learning Outcomes Resources .....	29
LLU Assessment Glossary .....	33
School Assessment Specialist Position Description .....	37
LLU Templates:	
Curriculum Map .....	39
Assessment Matrix .....	41
ILO Rubrics	
Academic and Professional Information Literacy .....	43
Quantitative Reasoning .....	45
Critical Thinking .....	49
Professional Critical Thinking .....	50
Oral Communication .....	53
Professional Oral Communication .....	54
Academic and Professional Written Communication .....	56
Mission Focused Learning (MFL) Rubrics	
Wholeness Rubric .....	58
MFL Resources	
MFL Standards for Course Design and Teaching .....	59

# Introduction

The Loma Linda University Assessment Guide is designed for busy faculty in the following ways:

- Provides essential assessment information in a quick-to-read format of brief narratives and bullet lists.
- Demystifies how to develop or update a Program Assessment Plan.
- Gives step-by-step directions about how to fill out the three annual reports due at the end of every October:
  - Faculty Portfolio (aka: Faculty Profile and Annual Faculty Report) – all faculty
  - Institutional Learning Outcome Assessment Report – all programs
  - Annual Action Plan – all programs
- Includes assessment resources in the appendices for those who want to learn more about assessment.
- Offers a glossary for assessment and program review terms used at LLU.
- Provides templates and all the LLU Institutional Learning Outcomes rubrics for easy reference while reading the guide. In addition, all these resources are posted at the Office of Educational Effectiveness' assessment website<sup>1</sup>.

## Important Changes

**ILO Assessment for All Students:** All LLU students need to be assessed on all five of the Institutional Learning Outcomes regardless of the length of programs. For more information see section: LLU Learning Outcomes and Assessment Strategy.

**Mission Focused Learning (MFL) Outcomes:** A new self-assessment Wholeness rubric (p. 58) is now available. It can be used by students, faculty, staff, and administrators. In addition, there are new MFL Standards for course design, development, and teaching. Both are available in the appendices. Please see section LLU Learning Outcomes and Assessment Strategy, for more information.

To learn more about Mission Focused Learning<sup>2</sup> and the MFL Standards for course design please review the OEE website.

**Formative Assessment:** In addition to the required Summative Assessment for ILOs and PLOs, a Formative Assessment is now required. If programs only conduct a Summative Assessment, it doesn't allow time to address any learning gaps that may exist with the current students. However, by utilizing a mid-program Formative Assessment it provides the opportunity for programs to address any discovered learning gaps while there is still time to make changes to help current students successfully master the ILOs and PLOs. Of course, it's not expected that students will do as well on the mid-program Formative Assessment as they do on the end-of-program Summative Assessment.

<sup>1</sup> LLU Assessment and Program Review Resources: <http://www.llu.edu/assessment/>

<sup>2</sup> Mission Focused Learning: <https://home.llu.edu/education/office-of-provost/departments-and-divisions/educational-effectiveness/mission-focused-learning>

# LLU Learning Outcomes and Assessment Strategy

## Institutional Learning Outcomes

Loma Linda University's Institutional Learning Outcomes (ILOs) for students are assessed throughout the academic degree programs within the University appropriate for their disciplines and degrees. The Office of Educational Effectiveness works with these programs to guide their assessment. For more in depth information about LLU's ILO assessment, please see: <http://www.llu.edu/central/assessment>

1. **Critical Thinking:** Students demonstrate critical thinking through examination of ideas and evidence before formulating an opinion or conclusion.
2. **Information Literacy:** Students demonstrate the ability to identify, locate, evaluate, utilize, and share information.
3. **Oral Communication:** Students demonstrate effective oral communications skills in English.
4. **Quantitative Reasoning:** Students demonstrate the ability to reason and develop evidence-based decisions using numerical information.
5. **Written Communication:** Students demonstrate effective written communication skills in English.

## Mission Focused Learning Outcomes

Loma Linda University's two Mission Focused Learning Outcomes (MFLOs) are firmly rooted in its mission, vision, and values<sup>3</sup>. Because Mission Focused Learning is LLU's culture, the University has developed a specialized assessment wholeness rubric to ensure integration of these outcomes over time.

- **Wholeness**<sup>4</sup>: Students apply the University philosophy of wholeness into their personal and professional lives.
- **Values**: Students integrate LLU's Christ-centered values in their personal and professional lives.

## All Students Assessed on All Five ILOs

LLU requires that all students be assessed on all five of the Institutional Learning Outcomes. For many programs the most effective and easy way to accomplish this is to assess every ILO every year. Since the length of programs vary, the reporting schedule for one to two ILOs per year is no longer in place. The very short ILO assessment report should be entered in the Assessment Management System (AMS). Please see Institutional Learning Outcome Assessment Report on how to submit an ILO report.

<sup>3</sup> LLU Values: Compassion, Excellence, Humility, Integrity, Justice, Teamwork, Wholeness <http://www.llu.edu/about-llu/mission-and-values>

<sup>4</sup> Wholeness: Loved by God, growing in health, living with purpose in community.



## Undergraduate ILO Assessment

*Assessing.* LLU requires all undergraduate students to be assessed on *all five* of the Institutional Learning Outcomes *regardless* of the length of programs. For example, a one-year undergraduate program would need to assess all students—on all five ILOs—in the one year. Programs longer than one year would assess all five ILOs during the length of the program.

*Reporting.* LLU requires all undergraduate programs to report on *all five* of the Institutional Learning Outcomes for *every* cohort. Thus, the program would be reporting every year on all five ILOs. This report must be submitted in the Assessment Management System (AMS) under the tab “Learning Outcomes Analysis.” For more information see “Institutional Learning Outcome Assessment Report” on p. 20.

## Graduate ILO Assessment

*Assessing.* LLU requires all graduate students to be assessed on *all five* of the Institutional Learning Outcomes *regardless* of the length of programs. For example, a one-year post-baccalaureate graduate program would need to assess all students—on all five ILOs—in the one year. Programs longer than one year would assess all five ILOs during the length of the program.

*Reporting.* LLU requires all graduate programs to report on *all five* of the Institutional Learning Outcomes for *all* students. This report must be submitted in the Assessment Management System (AMS) under the tab “Learning Outcomes Analysis.” For more information see “Institutional Learning Outcome Assessment Report” on p. 20.

# Professional Institutional Learning Outcomes

## Rationale

In today's world it is important for all LLU graduates to have excellent professional skills in addition to being experts in their fields in both knowledge and skills. Certainly, LLU graduates should have excellent critical thinking, oral and written communication, information literacy, and quantitative reasoning skills that are appropriate to their discipline and level. Whole patient care depends on these kinds of professionals. Thus, professional versions of the rubrics or those from professional accreditors are appropriate to use with students in clinical or skills-intensive programs. It is an alternative assessment approach for clinical programs that have trouble using the standard academic Institutional Learning Outcomes (ILOs) and rubrics to fit their discipline/profession and level.

**Professional Institutional Learning Outcomes:** Professional programs and skills-intensive disciplines may adapt and assess LLU's ILOs and rubrics to better meet their unique learning and assessment needs.

## Alternative Assessment Process

LLU has new freedom and responsibility to define, assess, and document learning in our own way. The following alternative approach to the LLU's existing ILOs and assessment tools is one of the initial ways for programs to meet their unique needs:

1. Transform the Institutional Learning Outcomes (ILOs) into Professional Institutional Learning Outcomes (Professional ILOs). *Note:* The Professional ILOs *do not* replace the regular Program Learning Outcomes (PLOs) that address the specific curriculum and skills of the program's discipline or profession.
2. Develop definitions for the ILOs that are meaningful for the program's discipline and level.
3. Select or develop a rubric that accurately assesses student learning for the program's new Professional ILO definitions. Programs may continue to use the current LLU/AAC&U VALUE Rubrics or a rubric used within the program's discipline/profession. Alternatively, programs may choose to use clinical versions of the LLU/AAC&U rubrics developed by the Learning Outcomes Committee.

All programs have the option to choose whether to use the regular ILOs or to move to the Professional ILO alternative assessment process. This can vary by ILO.

*All* degree programs must assess *all* students on *all* the ILOs during their program.

## Professional ILOs in Watermark's LiveText and via™

How will changing from LLU's ILOs to Professional ILOs impact using Watermark's Livetext and via™ and the overall assessment reporting for LLU?

**LLU ILO Rubrics:** All of the LLU existing ILO and Professional ILOs rubrics will be in Watermark's Livetext **Professional ILO Rubrics:** New Professional ILO rubrics will need to be added to Watermark's Livetext and via™ and tagged for their corresponding ILOs. As a result of this tagging, data reports can be run in Watermark's Livetext and via™ as usual even when programs use different rubrics.

**Support:** Workshops are available to help programs set up their new rubrics after they either have developed their own rubrics or have selected existing rubrics from their discipline/profession. Once the rubrics are set up and tagged properly in Watermark's Livetext and via™, faculty will be able to use them for assessments as usual. Contact [assessment@llu.edu](mailto:assessment@llu.edu) to schedule a workshop.

**Annual Reports:** All programs will complete the annual assessment reports, as usual, based on their assessments using either the traditional ILOs and rubrics, LLU's new PILO rubrics or their own Professional ILOs with appropriate rubrics.

**Assessment Schedule:** As noted earlier in this Guide all students need to be assessed on all five ILOs. Programs will now be able to get a better understanding of where their students are each year and can take appropriate actions if they are not meeting the criteria for success. This approach is considered best practice.

**Professional Programs:** Programs may choose whether they use the ILOs or Professional ILOs. They can transform the ILO into appropriate Professional ILOs for their programs, or they can keep some of the ILOs and only use a few Professional ILOs. No matter how a program selects ILOs and/or PILOs, there will only be five all together with *no* duplicates. The final selection should be a great match for the program's discipline and level.

See Professional Learning Outcomes Resources, p. 29, for studies regarding each of the five ILOs implemented in professional programs

# Program Assessment Plan

There are three components to the program assessment plan: (1) program learning outcomes with performance indicators, (2) a curriculum map, and (3) an assessment matrix. These tools are used to plan and monitor the program's curriculum, teaching, and assessment.

## Program Learning Outcomes (PLOs)

All programs have expected student learning program outcomes. Whether you are reviewing and updating your program's existing PLOs, or, if you are developing new PLOs for the first time, the process is the same.

Program learning outcomes are the program's expectations for student learning.

- Ask the question, "What do we want our students to learn, know, or be able to do by the end of this program?"
- Responses to this question will guide the identification and development of the program's outcomes.

**Professional Accreditation:** Programs with professional accreditation will be guided by their professional accrediting agency's expectations and requirements for the profession/discipline.

**Remember:** These outcomes should cover the *big* picture of student learning in the program. This is not the place for specific, detailed course competencies or objectives. All courses should address at least one of the PLOs. Below are some key definitions, concepts, and guidelines.

### Learning Outcomes

The knowledge, skill, attitudes, values, etc., that students should be able to demonstrate by the end of the program. ~Gloria Rogers

### Program learning outcomes should:

- Build on what already formally or informally guides the program.
- Be limited to 5 to 7.
- Be clear, concise, AND measurable.
- Have 1 to 3 performance indicators to measure each outcome. Each performance indicator must be assessed.

### **Process of Developing Program Learning Outcomes**

1. Review your program's professional or programmatic competencies.
2. Condense, combine, and/or collapse the resulting summative outcomes down to 5-7 outcomes. These outcomes should cover the full scope of the program.
3. Put resulting outcomes into a standard format.

### **Gloria Roger's Example – Standard Format**

Learning outcome: Demonstrate ethical responsibilities.

Performance criteria:

- 1) Apply knowledge of professional code of ethics.
- 2) Evaluate the ethical dimensions of a problem in the discipline.

### **Bloom's Taxonomy Resources**

Bloom's Taxonomy has good lists of active verbs that can strengthen PLO development. Below are several resources. There are many more on the web.

### **All Three Domains**

#### **Blooms Taxonomy, Learning Objectives and Higher Order Thinking**

<https://www.unthsc.edu/center-for-innovative-learning/blooms-taxonomy-learning-objectives-and-higher-order-thinking/>

### **Cognitive Domain**

#### **Developing Great Objectives [Outcomes]: New Bloom's Taxonomy (Medical perspective)**

[https://www.evms.edu/education/medical\\_programs/doctor\\_of\\_medicine/instructor\\_tools/learning/developing\\_objectives/blooms\\_taxonomy/](https://www.evms.edu/education/medical_programs/doctor_of_medicine/instructor_tools/learning/developing_objectives/blooms_taxonomy/)

#### **How to Design and Use Learning Objectives in Clinical Teaching**

Especially good for developing CLOs

<https://www.pharmaceutical-journal.com/learning/learning-article/how-to-design-and-use-learning-objectives-in-clinical-teaching/20200251.article?firstPass=false>



## Performance Indicators for ILOs and PLOs

Performance indicators describe *specifically* how the learning outcome will be measured. Typically, learning outcomes can be assessed in many ways, thus each one needs from 1-3 performance indicators to describe specific assessments.

### LLU Institutional Learning Outcomes (ILOs) Performance Indicators (PIs)

Performance Indicators are not provided for the ILOs. Programs need to develop their own PIs for the ILOs to better meet their discipline/professional and level needs.

### Value of Performance Indicators and Collected Data

1. To focus and motivate students, faculty, and staff toward achieving results
2. To communicate achievements to university and community stakeholders, and prospective students

*USAID Center for Development Information and Evaluation*

### Two Essential Parts of Performance Indicators

1. *Content reference*: Subject content that is the focus of instruction (e.g., steps of the design process, chemical reaction, scientific method).
2. *Action verb*: Direct students to a specific performance (e.g., “list,” “analyze,” “apply”)

*Gloria Rogers*

### Example: Mission Focused Learning Outcome

1. Students apply the University philosophy of wholeness into their personal and professional lives.
  - a. Demonstrate knowledge of LLU’s philosophy of wholeness.
  - b. Plan a personal strategy for wholeness and implement it.

### Types of Measures<sup>5</sup>

1. **Direct** – The assessment is based on an analysis of student behaviors or products in which they demonstrate how well they have mastered.
2. **Indirect**– The assessment is based on an analysis of reported perceptions about student mastery of learning outcomes.

### Performance Indicator Principles

- There should be *at least* one direct measure for each outcome.
- Develop 1-3 recommended performance indicators appropriate for the discipline and level for each of the five LLU ILOs and the program’s 5-7 PLOs.

<sup>5</sup> Allen, M. J. (2008). “Strategies for Direct and Indirect Assessment of Student Learning.”

Retrieved on November 29, 2017 from:

<http://academics.lmu.edu/spee/officeofassessment/assessmentresources/selectinganassessmentmeasure/>

### **Writing ILO and PLO Performances Indicators**

1. Analyze a learning outcome to determine how it is currently being assessed or how it could be assessed in the program.
2. Develop a statement that indicates the method of assessment along with the specific characteristics students should exhibit to show achievement.

### **Examples of Direct Measures**

- Exit and other interviews
- Standardized exams, only if questions are mapped to outcomes
- Locally developed exams, only if questions are mapped to outcomes
- Portfolios
- Simulations
- Performance appraisal
- External examiner
- Oral exams
- Behavioral observations

### **Examples of Indirect Measures (self-assessments)**

- Written surveys and questionnaires
- Exit and other interviews (yes, they can also be direct measures!)
- Archival records
- Focus groups

**NOTE:** Although the following methods are used to evaluate student learning, they are *not* accepted as assessment for specific ILOs or PLOs:

- Course evaluations
- Grades
- GPAs
- Standardized, program, and course test *total scores*
  - However, there is a way to analyze scores for specific questions in a test that are directly linked to specific ILOs or PLOs, the resulting scores would be acceptable as ILO or PLO assessments. Using ExamSoft is one way to track specific learning outcomes to particular exam questions. There should be enough questions related to the learning outcome to assess student learning adequately.

## Developing a Curriculum Map

Curriculum maps give programs a mechanism to organize curriculum in a logical and reasonable manner to support ILOs and PLOs. They encourage faculty to rethink what is taught, how learning is assessed, and a process in which to focus on the goal of implementing the Loma Linda University ILOs as well as the program learning outcomes (PLOs). The curriculum map ensures that the ILOs and PLOs will be implemented into the program's courses. Not only does this strengthen the curriculum, but it also helps to ensure the program will not stray from the PLOs, ILOs, and LLU's mission.

### Six Basic Steps on How to Prepare a Curriculum Map<sup>6</sup> in a Table:

1. List the five institutional learning outcomes (ILOs) and the 5-7 programmatic outcomes across the top of the table.
2. List all of the program's course numbers on the vertical axis of the table.
3. Review each course to determine what intentional educational strategy supports or helps students to achieve a specific outcome. For example, where instruction will be given and at what level.
4. Identify to what extent each course addresses the outcome in the instruction and note it on the map.
5. Identify the assessment level, if any.
6. Repeat the last three steps for *each* course and outcome.

### Learning Outcome Implementation in Courses' Instruction

- Determine the extent that each outcome is implemented in each course.
- Choose the appropriate level of instruction that is most appropriate for each course or if the program is externally accredited, use the required scale. Here is one example that would be appropriate for all programs:
  - I = Introduced
  - E = Expanded
  - A = Advanced
- Enter an I, E, or A in a cell whenever a course *intentionally* addresses a learning outcome at one of these levels. A few courses may have more than one of these levels. Only list the specific outcomes that are explicitly addressed in a course.

### Assessment with Results Tracked over Time:

In addition to indicating the level of instruction for every learning outcome, assessment also needs to be indicated. Most of the time there will be only one of the designations below per outcome; however in some unusual circumstances two might be in the course. Only one level per outcome is permitted.

- **B = Baseline** – Assessment at the beginning of program. **Recommended**; tracked by the program. This assessment shows the level of skills or learning of students when they enter the program.
- **F = Formative** – Assessment at the middle of the program. **Required**; tracked by the program and the University. Mid-program assessment gives the program the

<sup>6</sup> LLU curriculum map template: <http://www.llu.edu/central/assessment/assessment.page>

opportunity to make any necessary changes for the current students who were assessed, if they did not meet the criteria for success. This is the only opportunity for the program to fill this gap, if one is found. The summary formative report should be included briefly in the annual ILO summative assessment report.

- **S = Summative** – Assessment at the end of the program. **Required**; tracked by the program and the University. Shows the students' final level of success for the indicated learning outcome. If students did not meet the criteria for success, the program needs to determine what changes need to be made to improve student learning. This is closing the loop to make improvements for future students.

### How to Analyze a Curriculum Map

Review the curriculum map with these key principles and then make changes as needed.

- Every course needs to have *at least* one ILO *and* one PLO.
- Every ILO and PLO needs to have *at least* one course.

### What to do with a Course without an ILO or PLO

- Each learning outcome (ILO and PLO) must be addressed in at least *one* course.

If a course does not have an ILO, review the ILOs carefully to find one to fit the course, and add it to the curriculum map.

- If a course does not have a PLO, evaluate it carefully. Then take *one* of these actions:
  - Redesign the course to include at least one appropriate PLO.
  - Develop a new PLO that is needed for the program and is addressed in the course.
  - Evaluate the course further to see if it should be eliminated because it does not support any of the required PLOs.

### What to do with an ILO or PLO without a Course

- Evaluate the learning outcome carefully, then take *one* of these appropriate actions:
  - Re-examine the outcome to see if it should be revised or eliminated.
  - Modify an appropriate current course to address the ILO or PLO.
  - Develop a new course to address the orphan learning outcome.

**Keep It Current:** Update the program's curriculum map<sup>7</sup> whenever there is a change in the curriculum, so it is always current. This will make it a valuable resource for the program.

### Conclusion

Going through this development and evaluation process will provide an accurate program curriculum map that will give a comprehensive overview of where and to what extent the program's courses implement and assess the five LLU ILOs and the 5-7 program outcomes.

<sup>7</sup>The LLU Curriculum Map and the Assessment Matrix templates have been updated and can be found at: <http://www.llu.edu/central/assessment/assessment.page>

## Developing an Assessment Matrix

An assessment matrix is a tool to organize and track *how* the LLU Institutional Learning Outcomes (ILOs) and Program Learning Outcomes (PLOs) will be assessed. The required ILO assessment report and voluntarily submitted PLO assessment report should be entered into the AMS.

**Learning Outcomes Analysis** tab. An up-to-date assessment matrix will make the submission of the ILOs' assessment reports much easier to complete. Please see page \_\_\_\_ for the [LLU Assessment Matrix Template](#).

### Two Sections

There are two sections that ask for different kinds of information:

1. Where the learning outcomes are published
2. A detailed learning outcomes assessment plan and results

### First Section: Publishing Outcomes

Programs should publish their learning outcomes in all of the following locations so potential students and current students can see the program's commitment to what they will learn:

- University catalog
- Program web site
- Course syllabi
- Other program materials

### Second Section: A Detailed Learning Outcomes Assessment Plan

#### Column 1: Learning Outcomes

- University ILOs are already included in the template posted at the Office of Educational Effectiveness assessment website<sup>8</sup>.
- Add the Program Learning Outcomes.

#### Column 2: Performance Indicators (PIs)

- Add the learning outcomes' performance indicators for each ILO and PLO.

#### Column 3: Assessment Tools & Data Collection Cycles

Indicate the following for each learning outcome:

1. Existing assessment tools already in use:
  - Student assignment, project, lab, etc.
  - Rubric or other tool to assess the students' work on the assignment, project, lab, etc. If not using one of the LLU ILO or Professional ILO rubrics, upload it in the ILO report in the AMS. See ILO report in p. 20.

<sup>8</sup> LLU Assessment: <http://www.llu.edu/central/assessment/assessment.page>



2. New assessment tools may be developed or required by either the program or the university. Currently LLU is using Watermark's LiveText and via. Some programs professional accreditors require a specific assessment tool.
3. The data collection cycle (e.g., end of every quarter, annually, every other year, etc.)

#### **Column 4: Criteria for Success**

How will programs know if student learning is successful?

- Set the level of success for each learning outcome's performance indicator's assessment across the program.
  - Example 1: "85% of the students will attend at least one professional meeting; 50% will present at such meetings."
  - Example 2: "80% of the students will achieve level 3 or higher on the University rubric."
- **Note:** Course and test grades are *not* considered to be learning outcomes assessment *unless* specific learning outcomes are mapped to individual test questions. Course evaluations are also not considered learning outcome assessments but rather are indicators of student satisfaction.

#### **Column 5: Who interprets the assessment data? What is the process?**

- Document the evaluation process for the program's assessment data (*who* does it and *how* is it done). For example, "Course instructor(s) conducts the assessments;" "Program faculty team assess the culminating projects/paper," etc.
- Carefully analyze existing data collection processes. Each outcome should have at least one direct assessment. If needed, make the necessary changes.

#### **Column 6: Findings from Data Collection**

- Analyze the collected data for each ILO and PLO.
- Look for meaningful findings.
- Was the criteria for success met? ("yes" or "no")

#### **Column 7: Resulting Program Changes**

Finally, close the assessment loop by making necessary changes whenever the criteria for success on a learning outcome has not been met:

- If the "Criteria for Success" (see above) *has* been met, then state NA. No changes are necessary.
- If the "Criteria for Success" has *not* been met, note the resulting course or program changes that either have already been implemented or will be made soon.

**NOTE:** The purpose of assessment is to improve student learning. Closing the loop when the "Criteria for Success" for a learning outcome has not been met is the perfect opportunity to make changes to the program designed to improve student learning.

See p. 20 for the annual ILO/Professional ILO assessment report.

# Watermark's LiveText and via™ at LLU

Loma Linda University (LLU) provides Watermark's Livetext and via™<sup>9</sup> for use in assessment and for electronic portfolios in schools and programs. Watermark "is an Internet-based subscription service that allows students and instructors to create, share, and collaborate on educational curriculum"<sup>10</sup>. Once set up, faculty and students can use it as part of regular course work for ILO or PLO and/or for portfolio assessments.

LLU Institutional Learning Outcomes<sup>11</sup> (ILOs) rubrics have already been uploaded and are ready to use in Watermark's Livetext and via™. This will make assessment of ILOs easier and faster for faculty. In addition, it is easy to set up rubrics for program and course learning outcomes as well. Watermark's Livetext and via™ can be used for many other things including student e-Portfolios, Field Experience Management<sup>12</sup> (FEM) to assist with internships, practicums, accreditation, and so on.

To get started in Watermark's Livetext and via™, please request a faculty account by emailing [edtech@llu.edu](mailto:edtech@llu.edu). Once you have signed up for your faculty account, email your school's Watermark's Livetext and via™ administrator requesting the LLU Metarubrics so you can begin assessing the ILOs!

To find schedules for Watermark's Livetext and via™ training at LLU, and other up-to-date LLU resources, please go to the LLU Watermark support page.<sup>13</sup>

If you have questions about Watermark's Livetext and via™? Contact your school's assessment technology administrator. If you need help on identifying your support person contact [assessment@llu.edu](mailto:assessment@llu.edu).

<sup>9</sup> Watermark's LiveText and via™ - <https://www.Watermark.com/>

<sup>10</sup> Eastern Michigan University College of Education Watermark FAQ

<sup>11</sup> LLU ILOs - <http://www.llu.edu/central/assessment/ilo.page>

<sup>12</sup> Watermark's LiveText and via™: What We Do - <https://www.Watermark.com/what-we-do/>

<sup>13</sup> LLU Watermark Support Page - <http://www.llu.edu/central/assessment/Watermarkintro.page>

# LLU Annual Reports

Three LLU annual reports are due each year at the end of October: (1) Faculty Portfolio, (2) Annual Action Plan, and (3) Institutional Learning Outcome Assessment.

## 1. **Annual Faculty Report**<sup>14</sup> also called “Faculty Profile” and “Faculty Portfolio.”

**Who is responsible to complete:** All full-time and half-time faculty

**Due date:** End of October each year

This report is needed so programs, departments, schools, and the University can learn about significant faculty contributions to help administrators make informed decisions and plans. It is also useful for meeting both WSCUC and professional/discipline-specific accreditation requirements.


**What’s in it for the faculty?** There are several benefits of keeping profiles each year:

- Provides an online professional profile in the LLU Faculty Directory<sup>15</sup> for public viewing.
- Keeps current CVs in your Faculty Profile (safe, editable, and downloadable—see CVeditor in left menu)
- Your contributions can be recognized and mined by LLU.

**Portfolio Location:** To find your personal profile:

1. Go to the University Desktop on the One Portal
  - a. <https://one.lluh.org> > select Apps menu > click University Desktop
  - b. University Desktop direct link: <https://one.lluh.org/vip/apps/university-desktop>
2. Click on **Faculty Profile** under **Faculty Portals** section
  - a. **Faculty Profile** direct link: <https://myllu.llu.edu/facultyPortfolio/>

**Data Entry Tips:** There are just a few things to remember:

- *Plus sign (+)* – Click on the plus sign to **add** a new item in the desired category.
- *Pencil * ) – Click on the pencil by the item that you want to **edit**.
- *Item sections* – Inside each category new item are several sections. Some vary from category to category but most are similar, such as:
  - *Change Activity Type* – A pull-down menu at the top of the item. Select the appropriate subcategory.
  - *Title and Description* – A textbox is given for both the title and description. Copy text from your CV and paste into the textboxes. There are basic word processing-like tools available when needed.
    - *Internal Audience Only:* Click on the small arrow next to Internal

<sup>14</sup> Faculty Profile: <https://myllu.llu.edu/facultyPortfolio/>

<sup>15</sup> LLU Faculty Directory: <http://www.llu.edu/pages/faculty/directory/index.html>

Audience Only. If desired, enter a message for administration only. Even if the item is marked for Public Display, the “Internal Audience Only” note will *not* be visible to the public.

- Enter a fixed end date *only* when you no longer are teaching the course. If you want the end date to be “to present,” in the drop-down menu, scroll up on both the day and the year to select “blank” or “None” respectively.
- *Public Display*: If you want the item to show up in your profile on the LLU Faculty Directory, select “Yes.” If you don’t want it to be publically available, select “No.” Either way, the University will be able to see it to report internally.
- *Save*: Don’t forget to **Save**, or your work will be lost!
- *Delete Item*: If you want to delete an activity item, click in the box beside “Delete this item?” at the bottom of the item entry window. Then click **Save**. There is no undo for delete, so use it carefully.

**Annual Faculty Report Items:** There are key areas to be completed that most likely will not need to be updated every year. They are:

- Educational History
- Employment History

Annually update the following items as needed:

- Professional Development
- Teaching LLU Courses
- Teaching (Other)
- Research and Grantsmanship
- Publications
- Presentations
- Patient Care
- Service
- Honors and Awards
- Commitment to LLU Mission
- Admission Duties

**Discover My Publication:** Search your name.

- It may not capture all of your publications, but it will be a helpful start.

**Important Last Step Each Year:** When you have completed updating your portfolio to meet the end of October deadline, click on **Sign Off Annual Report** in the left menu. Then select the academic year from the date pull-down menu at the top of the window. It will generate a list of all the activities you entered for the selected year. After reviewing it, respond to the prompt (see below) and then click **Save portfolio status**:

- ☐ My portfolio information for the selected year is complete.
- ☒ I have not yet completed my portfolio information for the selected year.

 Save portfolio status

Please note: Completing this last step will allow administrators to run reports on the faculty completion status.

**Strategy to Relieve Deadline Stress:** Eliminate the end of October deadline stress by updating your portfolio every time you complete an activity; or update it monthly or quarterly.

**For Administrators who need “Faculty Portfolio” Report Permission.** If you are a program director, department chair, academic associate dean, or dean, you may need to be set up to run reports on Faculty Portfolio data for the faculty in your area of responsibility. Please contact the Office of Educational Effectiveness at [assessment@llu.edu](mailto:assessment@llu.edu) or extension 15042.



## 2. Institutional Learning Outcome Assessment Report<sup>16</sup>

**Who is responsible:** All program directors

**Date due:** End of October each year

### ILO Assessment Report Submission

All programs will submit their current year's ILO summative assessment report to the LLU Assessment Management System (AMS<sup>17</sup>) by the end of October every year. The assessment report is based on the LLU program Assessment Matrix Template and can be found in the **Learning Outcomes Analysis** tab. Be sure to note if formative assessment was done earlier and the results. See Institutional Learning Outcomes on p. 4 for more information.

Please refer back to section "All Students Assessed on All Five ILOs."

Choose:

- **Academic Year:** Select the correct academic year and outcome for the report to be submitted.

**Assessment Tools:** (1) Describe the project or other culminating-type assessment given to students. Also, (2) list the rubric used or other measurement tool perhaps from a professional/discipline-specific accrediting agency. If the program did not use the LLU rubric, describe how the culminating assessment was evaluated. Upload it here (click on the folder icon).

**Data Collection Cycle:** Note the assessment cycle (e.g., annually or every other year, etc.) See Institutional Learning Outcomes on p. 4 for more information. Please refer back to section "All Students Assessed on All Five ILOs."

**Criteria for Success:** LLU uses the AAC&U four-point rubrics so indicate the level of success expected and the percentage of students who must achieve this level in order for the program to be successful for the designated ILO. For example, "80% of the students will achieve a three or better on the LLU rubric."

**How Is Data Interpreted?** There are various ways that the data can be analyzed and interpreted: course instructor/s, program director, and program director and faculty. It is best practice for at least some of the ILO and PLO assessment results to be evaluated by more than one person such as the course instructor.

**Findings and Analysis:** Give a brief summary of the data and what it means.

<sup>16</sup> See Learning Outcomes Analysis tab: <http://myllu.llu.edu/assessment/programs/>

<sup>17</sup> AMS: <http://myllu.llu.edu/assessment/programs/> - Learning Outcomes Analysis tab

**Success Criteria Met?** This short response makes it possible to run reports on submitted assessment data reports. There are only two options: **Met**, and **Not Met**. The description for this item is in “Findings and Analysis.”

- Upload documents with the appropriate tables into the reporting sections they support. Click on the folder to the right of the desired section’s name to upload documents.

**Resulting Changes:** This only needs to be completed *if* the program did not meet the criteria for success on the designated ILO or PLO. Describe how the program closed the loop in order to improve student success on this learning outcome. See “Developing an Assessment Matrix” on p. 14.

**Save:** Your work will not be saved unless you click on **Save**. Save regularly!

### 3. Annual Program Action Plan Report<sup>18</sup> (formerly “Annual Program Report”)

**Who is responsible:** All program directors

**Due date:** End of October each year

The new Annual Action Plan Report begins with entering the program’s action plan recommendations into the assessment management system along with the planned solutions based on the most recent program review or professional accreditation cycle. Each year this action plan should be updated to show the past academic year’s progress. When the program completes a new cycle of LLU review or professional accreditation, enter the new action plan, and then update it annually. Action plans should include all recommendations from external reviewers during program review and document how those recommendations have been addressed. Programs are also requested to include action items they identify during annual assessment cycles, or from strategic planning and reflection. The dropdown menu for the “Recommendation source” allows you to choose how the recommendation/issue was identified.

**What’s in it for LLU?** The Annual Action Plan report is an online database that will make it possible for administrators at every level to:

- Track trends across their area of responsibility.
- Identify issues to be addressed.
- Understand timelines for solutions.
- Find who is responsible for specific action items.
- Get data to make better informed decisions.
- Locate examples and data for writing accreditation and program review documents and other reports as well.

**What’s in it for You?** Faithfully updating the annual program report will:

- Systematically build evidence to be used for making data-informed decisions.
- Help in writing program review and/or accreditation reports at all levels at LLU.
- Helps you to sleep better at night because you know your action plan is updated!

**Tip:** Give all program faculty *read-only* access so they can keep track of what needs to be done, when, how, and who is responsible for each item (keeps everyone on the same page). It is recommended to give only one or two people edit access to prevent edit conflicts. However, some programs divide the responsibilities among the faculty so each designated faculty would need their own edit access. Send access requests to [assessment@llu.edu](mailto:assessment@llu.edu).

#### **Annual Report: Action Plan in the AMS**

The AMS Action Plan Report has two parts for *each* recommendation’s **Issues & Goals**.

**Section One:** Identify the nature of the recommendation/goal.

- **Category:** Select the category from pull-down menu for a recommendation.

<sup>18</sup> Action Plan Report: <http://myllu.llu.edu/assessment/programs/>

There are nine categories in which to put recommendations and plans to solve them. If you only have two recommendations in two categories, the rest of the categories will remain empty.

- 1.1 Alignment: Vision, Mission, and Goal
- 1.2 Alignment: Academic and Professional Trends
- 1.3 Alignment: Societal and Professional Demands
- 2.0 Administration and Management of Resources
- 3.0 Faculty and Staff: Profiles; Scholarship; Achievements
- 4.1 Student: Student Enrollment, Retention, and Graduation;
- 4.2 Student: Satisfaction
- 4.3 Student: Accomplishments/Outcomes
- 5.0 Collaboration and Communication
- 6.0 Alumni Satisfaction
- 7.0 Curricula
- 8.0 Assessment Procedures and Tools
- 9.0 Others

1. **Current State/Issue:** Give a good description.
2. **Source:** Identify where the recommendation came from. For example, program self study, external team report, etc.
3. **Date Identified:** Note when the source gave the recommendation.
4. **Goal:** Describe the ideal situation or goal after the necessary changes have been completed to meet the recommendation.
5. **Timeframe for Completion:** Select the deadline for the completed goal by year, and either month or quarter from the pull-down menu.
6. **Status:** Don't forget to update the status for each goal before the end of October deadline: Not Started (default), In Progress, Completed, and Cancelled.
7. **Notes:** This is the place to keep records for anything related to the recommendation. If you cancel the recommendation, be sure to give a clear explanation for doing so.
8. **Save:** Don't forget to **Save** each time you add or edit the recommendation or your work will be lost.

**Section Two:** After entering the basic information on Section One, complete separate action items for *each* action necessary to accomplish the recommendation's proposed solution/goal.

- **Target Goal Timeframe:** This is automatically populated from the data entered in Section One.
- **Action:** Describe what must be done. It may take more than one action to accomplish a goal. Be sure to make a separate action item for each action so it can be tracked properly.
- **Completion Time Frame:** Enter the time this particular action item should be completed.
- **Responsibility Level:** Select the appropriate option: Program, Department,

- School, or University
- **Responsible Parties:** Enter the name(s) of the person(s) who are assigned to accomplish this action.
  - **Status:** It is important to select the appropriate status level: Not started (default), In progress, Completed, or Cancelled. If it has been cancelled, be sure to indicate in the Notes area *why* it has been cancelled.
  - **Notes:** Enter documenting notes on the action item or status.
  - **Save:** Don't forget to Save!

### Important Edit Tools

- **Pencil:** Click on the pencil icon to **edit** an item.
- **Folder:** Click on the folder to **upload files** to attach to the recommendation's solution goal. This will be helpful to keep files accessible for whenever they are needed including when writing interim reports or the next self study.

### Important Note for All AMS Reports

- **Tables:** Please do *not* copy and paste tables into the report textboxes, because this causes many complications in running AMS reports. Instead, whenever needed, please upload documents with the appropriate tables into the reporting sections they support. Click on the folder to the right of the desired section's name to upload documents.

### Office of Educational Effectiveness

Contact OEE for help with assessment, program review, and institutional research:

- **Phone:** extension 15042
- **Email:** [assessment@llu.edu](mailto:assessment@llu.edu)
- **Website:** <http://www.llu.edu/assessment>



# Appendices

# Assessment Resources

## Books

- Allen, M. J. (2003). *Assessing Academic Programs in Higher Education*. Bolton, MA: Anker Publishing Company, Inc.
- Allen, M. J. (2007). *Assessing General Education Programs*. Bolton, MA: Anker Publishing Company, Inc.
- Angelo, T. A., and Cross, K. P. (1993). *Classroom Assessment Techniques: A Handbook for College Teachers* (2<sup>nd</sup> ed.). San Francisco, CA: John Wiley & Sons, Inc.
- Banta, T. W., and Palomba, C. A. (2015). *Assessment Essentials: Planning and Implementing, and Improving Assessment in Higher Education* (2<sup>nd</sup> ed.). San Francisco, CA: Jossey-Bass.
- Banta, T. W. and Associates (2002). *Building a Scholarship of Assessment*. San Francisco, CA: John Wiley & Sons, Inc.
- Bresciani, M. J. (2018). *Outcomes-Based Program Review: Closing Achievement Gaps In- and Outside the Classroom with Alignment to Predictive Analytics and Performance Metrics* (2<sup>nd</sup> ed.). Sterling, VA: Stylus Publishing, LLC.
- Bresciani, M. J. (2006). *Outcomes-Based Academic and Co-Curricular Program Review: A Compilation of Institutional Good Practices*. Sterling, VA: Stylus Publishing, LLC.
- Kuh, G. D., Ikenberry, S. O., Jankowski, N. A., Cain, T. R., Ewell, P. J., Hutchings, P., Kinzie, J. (2015). *Using Evidence of Student Learning to Improve Higher Education*. San Francisco, CA: Jossey-Bass.
- Light, T. P., Chen, H. L., and Ittelson, J. C. (2012). *Documenting Learning with ePortfolios: A Guide for College Instructors*. San Francisco, CA: John Wiley & Sons, Inc.
- Maki, P. L. (2010). *Assessing for Learning: Building a Sustainable Commitment across the Institution*. Sterling, VA: Stylus Publishing, LLC.
- Maki, P. L., and Borkowski, N. A. (Eds.) (2006). *The Assessment of Doctoral Education: Emerging Criteria and New Models for Improving Outcomes*. Sterling, VA: Stylus Publishing, LLC.
- Nilson, L. B. (2010). *Teaching at Its Best: A Research-Based Resource for College Instructors* (3<sup>rd</sup> ed.). San Francisco, CA: Jossey-Bass, A Wiley Imprint.

- Palloff, R. M., and Pratt, K. (2009). *Assessing the Online Learner: Resources and Strategies for Faculty*. San Francisco, CA: John Wiley & Sons, Inc.
- Stevens, D. D., and Levi, A. J. (2012). *Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback, and Promote Student Learning* (2<sup>nd</sup> ed.). Sterling, VA: Stylus Publishing, LLC.
- Suskie, L. (2018). *Assessing Student Learning: A Common Sense Guide* (3<sup>rd</sup> ed.). San Francisco, CA: John Wiley & Sons, Inc.
- Walvoord, B. E. (2010). *Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education* (2<sup>nd</sup> ed.). San Francisco, CA: Jossey-Bass.
- Walvoord, B. E., and Anderson, V. J. (2010). *Effective Grading: A Tool for Learning and Assessment in College* (2<sup>nd</sup> ed.). San Francisco, CA: Jossey-Bass.

## Web

LLU Assessment and Program Review - Office of Educational Effectiveness

<http://www.llu.edu/assessment>

National Learning Institute for the Assessment of Learning Outcomes -

<http://www.learningoutcomeassessment.org/>

# Professional Institutional Learning Outcomes Resources

## Written Communication

Brown, C. A., Dickson, R., Humphreys, A.-L., McQuillan, V., & Smears, E. (2008). Promoting Academic Writing/Referencing Skills: Outcome of an Undergraduate E-Learning Pilot Project. *British Journal of Educational Technology*, 39(1), 140-156.  
<http://0search.ebscohost.com.catalog.llu.edu/login.aspx?direct=true&db=eric&AN=EJ782722&site=ehost-live&scope=site>

Fields, T. T., & Hatala, J. J. (2014). That, That, but Not That... Using a Cafeteria Plan to Enhance Writing Skills. *Administrative Issues Journal: Education, Practice, and Research*, 4(2), 3-11. <http://files.eric.ed.gov/fulltext/EJ1058504.pdf>

Fields, T. T., Hatala, J. J., & Nauert, R. F. (2014). Perceptions of Preceptors and Students on the Importance of Writing. *Administrative Issues Journal: Education, Practice, and Research*, 4(1). <http://files.eric.ed.gov/fulltext/EJ1058482.pdf>

Fillyaw, M. J. (2011). Case Report Writing in a Doctor of Physical Therapy Education Program: A Case Study. *Journal of the Scholarship of Teaching and Learning*, 11(1), 139-154.  
<http://files.eric.ed.gov/fulltext/EJ915929.pdf>

Grillo, E. U., Koenig, M. A., Gunter, C. D., & Kim, S. (2015). Teaching CSD Graduate Students to Think Critically, Apply Evidence, and Write Professionally. *Communication Disorders Quarterly*, 36(4), 241-251.  
<http://0cdq.sagepub.com.catalog.llu.edu/content/36/4/241.full.pdf>

## Oral Communication

Costello, E., Corcoran, M., Barnett, J. S., Birkmeier, M., Cohn, R., Ekmekci, O., . . . Walker, B. (2014). Information and Communication Technology to Facilitate Learning for Students in the Health Professions: Current Uses, Gaps, and Future Directions. *Online Learning*, 18(4).  
<http://files.eric.ed.gov/fulltext/EJ1048370.pdf>

Evans, D. J. R. (2013). Connecting with Different Audiences: The Anatomy of Communication is Essential. *Anatomical Sciences Education*, 6(2), 134-137.  
<http://onlinelibrary.wiley.com/doi/10.1002/ase.1311/abstract>

Horwitz, L. I., Moin, T., & Green, M. L. (2007). Development and implementation of an oral sign-out skills curriculum. *Journal of general internal medicine*, 22(10), 1470-1474.  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2305855/pdf/11606\\_2007\\_Article\\_331.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2305855/pdf/11606_2007_Article_331.pdf)

Junod Perron, N., Nendaz, M., Louis-Simonet, M., Sommer, J., Gut, A., Baroffio, A., . . . van der Vleuten, C. (2013). Effectiveness of a Training Program in Supervisors' Ability to Provide Feedback on Residents' Communication Skills. *Advances in Health Sciences Education*, 18(5), 901-915.

<http://0search.ebscohost.com.catalog.llu.edu/login.aspx?direct=true&db=eric&AN=EJ1036064&site=ehost-live&scope=site>

Managheb, S. E., Zamani, A., Shams, B., & Farajzadegan, Z. (2012). The Effect of Communication Skills Training by Video Feedback Method on Clinical Skills of Interns of Isfahan University of Medical Sciences Compared to Didactic Methods. *Health Education Journal*, 71(5), 546-552

<http://0-hej.sagepub.com.catalog.llu.edu/content/71/5/546.full.pdf>

Walton, K. L. W., & Baker, J. C. (2009). Group Projects as a Method of Promoting Student Scientific Communication and Collaboration in a Public Health Microbiology Course. *Bioscene: Journal of College Biology Teaching*, 35(2), 16-22.

<http://files.eric.ed.gov/fulltext/EJ889701.pdf>

Yang, S.-H., Shih, C.-K., Liu, C.-H., Peng, H.-T., & Chan, W. P. (2014). Service Learning for Medical Students: Program Development and Students' Reflections. *Turkish Online Journal of Educational Technology - TOJET*, 13(1), 193-198.

<http://files.eric.ed.gov/fulltext/EJ1018159.pdf>

### **Quantitative Reasoning**

Manrai, A. K., Bhatia, G., Strymish, J., Kohane, I. S., & Jain, S. H. (2014). Medicine's uncomfortable relationship with math: calculating positive predictive value. *JAMA internal medicine*, 174(6), 991-993.

<http://archinte.jamanetwork.com/data/Journals/INTEMED/930309/ild140014.pdf>

McNaught, K., & Hoyne, G. (2013). Testing Program Reveals Deficient Mathematics for Health Science Students Commencing University. *Issues in Educational Research*, 23(2), 180-195. <http://www.iier.org.au/iier23/mcnaught.pdf>

Rao, G. (2008). Physician numeracy: Essential skills for practicing evidence-based medicine. *Family Medicine*, 40(5), 354.

<http://www.stfm.org/fmhub/fm2008/May/Goutham354.pdf?pagewanted=all>

Whiting, P. F., Davenport, C., Jameson, C., Burke, M., Sterne, J. A. C., Hyde, C., & Ben-Shlomo, Y. (2015). How well do health professionals interpret diagnostic information? A systematic review. *Bmj Open*, 5(7). doi: 10.1136/bmjopen-2015-008155

<http://bmjopen.bmj.com/content/5/7/e008155.full.pdf>

### **Information Literacy**

Coleman, C. A., & Fromer, A. (2015). A health literacy training intervention for physicians and other health professionals. *Fam Med*, 47(5), 388-392.

<http://www.stfm.org/FamilyMedicine/Vol47Issue5/Coleman388>

Judd, T., & Kennedy, G. (2011). Expediency-Based Practice? Medical Students' Reliance on Google and Wikipedia for Biomedical Inquiries. *British Journal of Educational Technology*, 42(2), 351-360.

<http://0search.ebscohost.com.catalog.llu.edu/login.aspx?direct=true&db=eric&AN=EJ927821&site=ehost-live&scope=site>

Kaplowitz, J. R., & Yamamoto, D. O. (2001). Web-based Library Instruction for a Changing Medical School Curriculum. *Library Trends*, 50(1), 47-57.

<http://0search.ebscohost.com.catalog.llu.edu/login.aspx?direct=true&db=eric&AN=EJ639624&site=ehost-live&scope=site>

Robertson, D. S., & Felicilda-Reynaldo, R. F. (2015). Evaluation of graduate nursing students' information literacy self-efficacy and applied skills. *J Nurs Educ*, 54(3 Suppl), S26-30. doi: 10.3928/01484834-20150218-03

[http://www.healio.com/nursing/journals/jne/2015-3-54-3-supplemental/\[ee17f1d7-3419-4aa0-8739-8a1cd7ccb9d3\]/evaluation-of-graduate-nursing-students-information-literacy-self-efficacy-and-applied-skills.pdf](http://www.healio.com/nursing/journals/jne/2015-3-54-3-supplemental/[ee17f1d7-3419-4aa0-8739-8a1cd7ccb9d3]/evaluation-of-graduate-nursing-students-information-literacy-self-efficacy-and-applied-skills.pdf)

Stombaugh, A., Sperstad, R., Vanwormer, A., Jennings, E., Kishel, H., & Vogh, B. (2013). Using lesson study to integrate information literacy throughout the curriculum. *Nurse Educ*, 38(4), 173-177. doi: 10.1097/NNE.0b013e318296db56

<http://ovidsp.tx.ovid.com/ovftpdfs/FPDDNCIBIFKPLH00/fs046/ovft/live/gv025/00006223/00006223-201307000-00017.pdf>

Trujillo, J. M., & Figler, T. A. (2015). Teaching and learning health literacy in a doctor of pharmacy program. *Am J Pharm Educ*, 79(2), 27. doi: 10.5688/ajpe79227

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4386748/pdf/ajpe79227.pdf>

### **Critical Thinking**

Ferris, H., & O'Flynn, D. (2015). Assessment in Medical Education; What Are We Trying to Achieve? *International Journal of Higher Education*, 4(2), 139-144.

<http://0search.ebscohost.com.catalog.llu.edu/login.aspx?direct=true&db=eric&AN=EJ1060624&site=ehost-live&scope=site>

Grillo, E. U., Koenig, M. A., Gunter, C. D., & Kim, S. (2015). Teaching CSD Graduate Students to Think Critically, Apply Evidence, and Write Professionally. *Communication Disorders Quarterly*, 36(4), 241-251.

<http://0-cdq.sagepub.com.catalog.llu.edu/content/36/4/241.full.pdf>

McDonald, P. L., Straker, H. O., Schlumpf, K. S., & Plack, M. M. (2014). Learning Partnership: Students and Faculty Learning Together to Facilitate Reflection and Higher Order Thinking in a Blended Course. *Online Learning*, 18(4).

<http://olj.onlinelearningconsortium.org/index.php/olj/article/download/516/121>

Rowles, J., Morgan, C., Burns, S., & Merchant, C. (2013). Faculty Perceptions of Critical Thinking at a Health Sciences University. *Journal of the Scholarship of Teaching and Learning*, 13(4), 21-35. <http://files.eric.ed.gov/fulltext/EJ1017052.pdf>



Schell, R., & Kaufman, D. (2009). Critical Thinking in a Collaborative Online PBL Tutorial. *Journal of Educational Computing Research*, 41(2), 155-170.  
<http://0-jec.sagepub.com.catalog.llu.edu/content/41/2/155.full.pdf>

Walter, K. O., Baller, S. L., & Kuntz, A. M. (2012). Two Approaches for Using Web Sharing and Photography Assignments to Increase Critical Thinking in the Health Sciences. *International Journal of Teaching and Learning in Higher Education*, 24(3), 383-394.  
<http://files.eric.ed.gov/fulltext/EJ1000690.pdf>

## LLU Assessment Glossary

**Assessment Management System (AMS)**<sup>19</sup>: An online repository and reporting tool that includes the three annual reports (see “Annual Reports”) on p. 17.

**Action Plan Report**: Formerly called the Annual Program Report. At the end of a program review or professional accreditation cycle the program should develop an action plan showing how it plans to address each of the resulting recommendations before the next cycle’s visit. This updated report is required annually by the end of October each year. Update the report in the AMS.

**ALO**<sup>20</sup>: Accreditation Liaison Officer to interface between the WASC Senior College and University Commission (WSCUC) and the college or University.

**Annual Program Report**: See Action Plan Report

**Annual reports**: LLU has three annual reports: Faculty Portfolio (see p. 17), the Institutional Learning Outcome Assessment Report (see p. 20), and Annual Action Plan Report (see p. 22-23). All are due the end of October of each year.

**Assessment**: Processes that identify, collect, use, and prepare data that can be used to evaluate student achievement.

**Assessment matrix**: A tool to organize and track how the LLU Institutional Learning Outcomes (ILOs) and Program Learning Outcomes (PLOs) are assessed. (see p. 14)

**Baseline assessment**: Assessment conducted at the beginning of the program to determine students’ entry levels on ILOs and PLOs. This assessment shows the level of skills or learning of students when they enter the program. It is not required. (see p. 12)

**Competency**: Level at which performance is acceptable.

**Curriculum map**: A mechanism to organize the program’s curriculum in a logical and reasonable manner to support their learning outcomes and shows where the outcomes are taught and assessed. (see p. 12)

**Direct measure**<sup>21</sup>: The assessment is based on an analysis of student behaviors or products in which they demonstrate how well they have mastered learning outcomes. (see p. 10)

<sup>19</sup> AMS: <http://myllu.llu.edu/assessment/programs/>

<sup>20</sup> LLU ALO - Marilyn Eggers, PhD, Associate Provost: Educational Effectiveness and Extended Education

<sup>21</sup> Allen, M. J. (2008). “Strategies for Direct and Indirect Assessment of Student Learning.” Retrieved on November 29, 2017 from: <http://academics.lmu.edu/spee/officeofassessment/assessmentresources/selectinganassessmentmeasure/>

**Evaluation:** Process of reviewing the results of data collection and analysis and making a determination of the value of findings and action to be taken.

**Exit and other interviews:** Face-to-face interviews asking graduate students to share their perceptions about the target of study—e.g., their own skills/attitudes, skills and attitudes of others, or program qualities. This can be done in online programs with Zoom<sup>22</sup>.

**Focus groups:** Guided discussion of a group of people who share certain characteristics related to the research or evaluation question, conducted by a trained moderator.

**Formative assessment:** (Updated) Assessment at the middle of the program. **Required;** tracked by the program and the University. Mid-program assessment gives the program the opportunity to make any necessary changes for the current students who were assessed, if they did not meet the criteria for success. This is the only opportunity for the program to fill this gap, if one is found. The summary formative report should be included briefly in the annual Institutional ILO report along with the summative assessment report. (see pp. 12 and 16)

**Indirect measure**<sup>23</sup>: The assessment is based on an analysis of reported perceptions about student mastery of learning outcomes

**Institutional learning outcomes (ILOs):** The institution's learning outcomes that all students at all levels should be successful in by the end of the program. (see pp. 8)

**Institutional research**<sup>24</sup>: Provides the university community with information to support decision-making and educational effectiveness efforts and fulfills requests for institutional data from local, state and federal agencies.

**Learning outcome:** See Student Learning Outcomes (SLOs)

**Mission Focused Learning Outcomes (MFLOs):** Loma Linda University's two Mission Focused Learning Outcomes (MFLOs) are firmly rooted in its mission, vision, and values. Because Mission Focused Learning is LLU's culture, the University is developing specialized assessment processes to ensure integration of these outcomes over time.

- **Wholeness**<sup>25</sup>: Students apply the University philosophy of wholeness into their personal and professional lives.

<sup>22</sup> Zoom: <https://www.zoom.us>

<sup>23</sup> Allen, M. J. (2008). "Strategies for Direct and Indirect Assessment of Student Learning." Retrieved on November 29, 2017 from:

<http://academics.lmu.edu/spee/officeofassessment/assessmentresources/selectinganassessmentmeasure/>

<sup>24</sup> LLU Institutional Researcher: W. Ken Nelson, MD, Office of Educational Effectiveness Associate Director

<sup>25</sup> Wholeness: Loved by God, growing in health, living with purpose in community

- **Values<sup>26</sup>:** Students integrate LLU's Christ-centered values in their personal and professional lives.

**Objectives:** Broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.

**OEE:** See Office of Educational Effectiveness

**Office of Educational Effectiveness (OEE)<sup>27</sup>:** This office promotes educational effectiveness by coordinating and facilitating assessment, program review, University accreditation, institutional research, and other areas in addition to special projects including EXSEED<sup>28</sup>.

**Operational (–ize):** Defining a term or object so that it can be measured. Generally states the operations or procedures used that distinguish it from others.

**Outcomes:** Statements that describe what students are expected to know and are able to do by the time of graduation. See p. 8 for outcomes.

**Performance criteria/indicators:** Specific, measurable statements identifying the performance(s) required to meet and assess the outcome. They are confirmable through assessment evidence. (See p. 10)

**Portfolios:** Collections of work samples and reflections usually compiled over time and rated using rubrics.

**Professional ILOs:** Professional and skills-intensive programs may adapt LLU's ILO's and rubrics to meet their unique learning and assessment needs. Professional ILO rubrics are being developed by the Learning Outcomes Committee and are posted at the OEE website. (see p. 6)

**Program review<sup>29</sup>:** LLU has a formal program review process and guide to assist programs in their cycle of review.

**Rubrics:** A rubric is a set of categories or elements that define and describe the important components of the work being completed, critiqued, or assessed. Each category or element contains a gradation of levels of completion or competence with a score assigned to each level and a clear description of what criteria needs to be met to attain the score at each level.

<sup>26</sup> LLU Values: Compassion, Excellence, Freedom, Integrity, Humility, Justice, Purity/Self-control  
<http://www.llu.edu/central/values.page>

<sup>27</sup> OEE: <http://www.llu.edu/assessment>

<sup>28</sup> EXSEED: <http://www.llu.edu/exseed>

<sup>29</sup> Program Review: <http://www.llu.edu/central/assessment/programreview.page>

**School Assessment Specialist<sup>30</sup>:** Each school assigns at least one Assessment Specialist to coordinate and support school assessment activities. These individuals have evaluation and measurement experience and receive additional training and support from the OEE. They are also members of the University Assessment Committee<sup>31</sup>.

**Stakeholder:** Anyone who has a vested interest in the outcome of the program/project.

**Student Learning Outcomes (SLOs):** Knowledge, skill, attitudes, values, etc., that students should be able to demonstrate by the end of the program. This is a large category term for three types of SLOs: (1) institutional (ILOs), (2) program (PLOs), and (3) course (CLOs). (see pp. 4 and 8)

**Summative assessment:** Assessment at the end of the program. **Required;** tracked by the University. Shows the students' final level of success for the indicated learning outcome. If students did not meet the criteria for success, the program needs to determine what changes need to be made to improve student learning. This is the final closing of the loop to make improvements for future students. (see p. 13)

**Triangulate:** The use of a combination of assessment methods in a study. An example of triangulation would be an assessment that incorporated student work, surveys, and observations.

**Written surveys:** Asking individuals to share their perceptions about the study target—e.g., their own or others' skills/attitudes/behavior, or program/course qualities and attributes.

*Some of these definitions were presented by Gloria Rogers in her Faculty Workshop on Assessing Student Learning, August 6 & 7, 2007, at LLU.*

<sup>30</sup> See School Assessment Specialist: <http://www.llu.edu/central/assessment/assessment.page>

<sup>31</sup> University Assessment Committee: <http://home.llu.edu/academics/academic-resources/educational-effectiveness/committees/university-assessment-committee>

# University Assessment Committee

## *University Assessment Committee • Loma Linda University*

### School Assessment Specialists Position Description

Each School will assign at least one Assessment Specialist with evaluation and measurement experience to coordinate school assessment activities. The Office of Educational Effectiveness (OEE) provides ongoing assessment support and training to assure meaningful, coordinated assessment.

All school Assessment Specialists serve on the University Assessment Committee<sup>32</sup> and also function as liaisons between this committee and their Schools.

The Assessment Specialist will:

1. Provide assessment support for the University, schools, and programs
  - Assist programs to develop their assessment plans and processes
  - Assist course directors with course-level assessments
    - Support Watermark software program where applicable<sup>33</sup>
2. Be familiar with and promote resources from the OEE
  - Assessment Guide<sup>34</sup>
  - Program Review Guide<sup>35</sup>
  - Distance Education Guide<sup>36</sup>
  - Office of Educational Effectiveness (OEE) website<sup>37</sup>
  - Newsletter (view on OEE website)
  - Power BI<sup>38 39</sup>
3. Communicate clearly and regularly with schools on LLU's assessment announcements, expectations and deadlines
4. Provide feedback to schools and programs to assist them in closing the assessment loop and ensure the dissemination of the results
5. Participate in school's Program Review efforts
6. Provide assessment mentoring both in their own and other schools

<sup>32</sup> UAC -

<https://myllu.llu.edu/syncall/itemdetail/?communityId=3295&itemType=story&itemId=6328>

<sup>33</sup> Watermark (LiveText & via) - <https://home.llu.edu/education/office-of-provost/departments-and-divisions/livetext-by-watermark-and-via-by-watermark>

<sup>34</sup> LLU Assessment Guide - <https://home.llu.edu/education/office-of-provost/departments-and-divisions/educational-effectiveness/assessment>

<sup>35</sup> LLU Program Review Guide - <https://home.llu.edu/education/office-of-provost/departments-and-divisions/program-review>

<sup>36</sup> LLU Distance Education Guide - <https://home.llu.edu/education/office-of-provost/departments-and-divisions/online-programs/llu-distance-education>

<sup>37</sup> OEE - <https://home.llu.edu/education/office-of-provost/departments-and-divisions/educational-effectiveness>

<sup>38</sup> LLU Power BI - <https://powerbi.microsoft.com/en-us/landing/signin/?ru=https%3A%2F%2Fapp.powerbi.com%2F%3Froute%3Dgroups%252fme%252fdashboards%252f0ff493b9-6ab9-4d65-afc5-e65d58191f00%26noSignUpCheck%3D1>

<sup>39</sup> LLU Power BI – If you don't have access, contact [assessment@llu.edu](mailto:assessment@llu.edu)

7. Participate in the development of assessment reports and ensure the dissemination of these reports
8. Support and encourage the completion of the annual program reports and ensure dissemination of the results
  - AMS<sup>40</sup>
    - ILO Analysis
    - Action Plans
  - Annual Faculty Report<sup>41</sup>

The Assessment Specialist may:

1. Serve on other OEE committees as needed and as assigned by schools to formulate the assessment policies for LLU and to ensure the dissemination of these decisions to their respective schools.
2. Participate on assessment projects that benefit the University.
3. Participate in the development and offering of assessment workshops.
4. Coordinate their school's professional accreditation, if appropriate, as well as be supportive in LLU's WSCUC accreditation preparation. Ensure that assignments for WSCUC preparations are completed at both the school and program level.

<sup>40</sup> Academic Management System (AMS) -

<https://myllu.llu.edu/assessment/programs/?tab=dashboard>

<sup>41</sup> Annual Faculty Report - <https://myllu.llu.edu/profile/portfolio/>



Loma Linda University

PLOs <sup>43</sup>	1.	2.	3.	4.	5.	6.	7.

**Instruction:**

**I** = Introduced

**E** = Expanded

**A** = Advanced

**Assessment<sup>44</sup>:**

**B** = Baseline – Assessment at beginning of program. ***Recommended***; tracked by the program.

**F** = Formative – Assessment at the middle of the program. ***Required***; tracked by the program.

**S** = Summative – Assessment at the end of the program. ***Required***; tracked by the University.

**Institutional Learning Outcomes (ILOs):**

Abbreviation	ILOs
1. CritThink	Critical Thinking
2. InfoLit	Information Literacy
3. OralCom	Oral Communication
4. QuantR	Quantitative Reasoning
5. WrittenCom	Written Communication

<sup>44</sup> Results tracked over time

**Assessment Matrix<sup>45</sup>**  
**[School name: Program name]**  
**[Academic year]**  
Loma Linda University

**Where are outcomes published? Mark all that apply.**

	Catalog	Program Website	Course Syllabi	Program Documents	Other (list)
LLU Institutional Learning Outcomes					
Program Learning Outcomes					

**LLU Institutional Learning Outcomes**

LLU Institutional Learning Outcomes (ILOs)	Performance Indicators <sup>46</sup>	Assessment Measurement Tools & Data Collection Cycles	Criteria for Success	Who interprets the assessment data? What is the process?	Findings from Assessment Data Collection	Resulting Program Changes
<b>1. Critical Thinking</b>						
<b>2. Information Literacy</b>						
<b>3. Oral Communication</b>						
<b>4. Quantitative Reasoning</b>						
<b>5. Written Communication</b>						

<sup>45</sup> LLU template based on Point Loma Nazarene University's Assessment Plan Matrix

<sup>46</sup> Develop ILO Performance Indicators (1-3) to fit the program.

**Program Learning Outcomes**

<b>Program Learning Outcomes (PLOs)</b>	<b>Performance Indicators</b>	<b>Assessment Measurement Tools &amp; Data Collection Cycles</b>	<b>Criteria for Success</b>	<b>Who interprets the assessment data? What is the process?</b>	<b>Findings from Assessment Data Collection</b>	<b>Resulting Program Changes</b>
1.						
2.						
3.						
4.						
5.						
6.						
7.						

# LLU INSTITUTIONAL LEARNING OUTCOME: INFORMATION LITERACY RUBRIC

## DEVELOPED FOR ACADEMIC AND PROFESSIONAL USE

*Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below.*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, **not for grading**. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

### Definition

The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - National Forum on Information Literacy

### Framing Language

This rubric is recommended for use evaluating a collection of work, rather than a single work sample in order to fully gauge students' information literacy skills. Some of the areas that could be evaluated could include: research papers, editorials, speeches, grant proposals, marketing or business plans, PowerPoint and other presentations, posters, literature reviews, position papers, and argument critiques—technical procedures, charting, clinical projects to name a few. In addition, a description of the assignments with the instructions that initiated the student work would be vital in providing the complete context for the work. Although a student's final work must stand on its own, evidence of a student's research and information gathering processes, such as a research journal/diary, could provide further demonstration of a student's information proficiency and for some criteria on this rubric could be required.

### Glossary

**Access the Needed Information** – Use Boolean search logic (as found at <https://libguides.mit.edu/c.php?g=175963&p=1158594>) within search engines for evidence-based, discipline-specific data-bases and other professional sources.

**Evaluate Information and Its Sources Critically** – Seek, recognize and use legitimate evidence-based sources.

**Ethical and Legal Information** – Students correctly cite and reference information in their writing to avoid plagiarizing. This includes restrictions on the access and use of published, confidential, and/or proprietary information i.e. copyright and trademarks. Students carefully paraphrase, summarize and quote in ways that are true to the original context.

This rubric is recommended for use in evaluating information literacy skills in both academic and professional settings.

# LLU INSTITUTIONAL LEARNING OUTCOME: INFORMATION LITERACY RUBRIC

## DEVELOPED FOR ACADEMIC AND PROFESSIONAL USE

Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>2</sup>

### Definition

The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - The National Forum on Information Literacy

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

	4	3	2	1
<b>Determine the Extent and Types of Information Needed</b>	<b>Effectively</b> determines key concepts and defines the scope of the problem or research question. Types of information sources selected <b>directly</b> relate to concepts or problem.	Determines key concepts and defines the scope of the problem or research question.. Types of information sources selected relate to concepts or respond to the problem.	Determines <b>some</b> key concepts and <b>partially</b> defines the scope of the problem or research question. (parts are missing, remains too broad or too narrow, etc.). Types of information sources selected <b>partially</b> relate to concepts or respond to the problem.	Has difficulty determining key concepts and defining the the scope of the problem or research question. Types of information sources selected <b>minimally</b> relate to concepts or respond to the problem.
<b>Access the Needed Information</b>	Accesses information using effective, well-designed search strategies and the ability to refine the search while using the most appropriate information sources.	Accesses information using a variety of search strategies with the ability to refine the search while choosing relevant information sources.	Accesses information using simple search strategies, retrieves information from limited and similar sources.	Accesses information randomly, retrieves information that lacks relevance and quality.
<b>Evaluate Information and Its Sources Critically</b>	<b>Effectively</b> analyzes and applies evidence-based information sources <b>directly related</b> to the scope and discipline of the problem or research question, such as: relevance to the research question, currency, authority, audience, and bias or point of view.	Analyzes and applies evidence-based information sources using multiple criteria <b>appropriate</b> to the scope and discipline of the problem or research question, such as: relevance to the research question, currency, authority, audience, and bias or point of view.	Chooses a variety of information sources using basic criteria, such as: currency and relevance to the problem or research question.	Chooses a few information sources. using limited criteria, such as: relevance to the problem or research question.
<b>Use Information Effectively to Accomplish a Specific Purpose</b>	Communicates, organizes and synthesizes information from sources to fully achieve the specific purpose, with clarity and depth.	Communicates, organizes and uses information from sources. The intended purpose is achieved.	Communicates and organizes information from sources. The intended purpose is not fully achieved.	Communicates information from sources. The information is fragmented and/or used inappropriately, such as: misquoted, taken out of context, or incorrectly paraphrased. The intended purpose is not achieved.
<b>Access and Use Information Ethically and Legally</b>	Demonstrates thorough knowledge and application of the ethical and legal restrictions on the access and use of published, confidential, and/or proprietary information. Uses the designated format correctly including appropriate citations.	Demonstrates knowledge and application of ethical and legal restrictions in the access and use of published, confidential, and/or proprietary information. Uses the designated format correctly including appropriate citations.	Demonstrates partial knowledge and application of the ethical and legal restrictions in the access and use of published, confidential, and/or proprietary information.	Demonstrates limited knowledge and application of the ethical and legal restrictions in the access and use of published, confidential, and/or proprietary information.

<sup>2</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>

# LLU INSTITUTIONAL LEARNING OUTCOME: QUANTITATIVE REASONING RUBRIC

## DEVELOPED FOR ACADEMIC AND PROFESSIONAL USE

*Based on the AAC&U Quantitative Literacy VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>1</sup>.*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, **not for grading**. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

### Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

### Quantitative Literacy Across the Disciplines

Current trends in general education reform demonstrate that faculty are recognizing the steadily growing importance of Quantitative Literacy (QL) in an increasingly quantitative and data-dense world. AAC&U's recent survey showed that concerns about QL skills are shared by employers, who recognize that many of today's students will need a wide range of high level quantitative skills to complete their work responsibilities. Virtually all of today's students, regardless of career choice, will need basic QL skills such as the ability to draw information from charts, graphs, and geometric figures, and the ability to accurately complete straightforward estimations and calculations.

Preliminary efforts to find student work products which demonstrate QL skills proved a challenge in this rubric creation process. It's possible to find pages of mathematical problems, but what those problem sets don't demonstrate is whether the student was able to think about and understand the meaning of her work. It's possible to find research papers that include quantitative information, but those papers often don't provide evidence that allows the evaluator to see how much of the thinking was done by the original source (often carefully cited in the paper) and how much was done by the student herself, or whether conclusions drawn from analysis of the source material are even accurate.

Given widespread agreement about the importance of QL, it becomes incumbent on faculty to develop new kinds of assignments which give students substantive, contextualized experience in using such skills as analyzing quantitative information, representing quantitative information in appropriate forms, completing calculations to answer meaningful questions, making judgments based on quantitative data and communicating the results of that work for various purposes and audiences. As students gain experience with those skills, faculty must develop assignments that require students to create work products which reveal their thought processes and demonstrate the range of their QL skills.

This rubric provides for faculty a definition for QL and a rubric describing four levels of QL achievement which might be observed in work products within work samples or collections of work. Members of AAC&U's rubric development team for QL hope that these materials will aid in the assessment of QL – but, equally important, we hope that they will help institutions and individuals in the effort to more thoroughly embed QL across the curriculum of colleges and universities.

<sup>1</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>  
LLU Assessment Guide



## **Framing Language**

This rubric has been designed for the evaluation of work that addresses quantitative literacy (QL) in a substantive way. QL is not just computation, not just the citing of someone else's data. QL is a habit of mind, a way of thinking about the world that relies on data and on the mathematical analysis of data to make connections and draw conclusions. Teaching QL requires us to design assignments that address authentic, data-based problems. Such assignments may call for the traditional written paper, but we can imagine other alternatives: a video of a PowerPoint presentation, perhaps, or a well designed series of web pages. In any case, a successful demonstration of QL will place the mathematical work in the context of a full and robust discussion of the underlying issues addressed by the assignment.

Finally, QL skills can be applied to a wide array of problems of varying difficulty, confounding the use of this rubric. For example, the same student might demonstrate high levels of QL achievement when working on a simplistic problem and low levels of QL achievement when working on a very complex problem. Thus, to accurately assess a student's QL achievement it may be necessary to measure QL achievement within the context of problem complexity, much as is done in diving competitions where two scores are given, one for the difficulty of the dive, and the other for the skill in accomplishing the dive. In this context, that would mean giving one score for the complexity of the problem and another score for the QL achievement in solving the problem.

# LLU INSTITUTIONAL LEARNING OUTCOME: QUANTITATIVE REASONING RUBRIC

## DEVELOPED FOR ACADEMIC AND PROFESSIONAL USE

Based on the AAC&U Quantitative Literacy VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>2</sup>.

### Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

	4	3	2	1
<b>Interpretation</b> <i>Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)</i>	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. <i>An example would be to accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.</i>	Provides accurate explanations of information presented in mathematical forms. <i>An example would be to accurately explain the trend data shown in a graph.</i>	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. <i>An example would be to accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.</i>	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. <i>An example would be to attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.</i>
<b>Representation</b> <i>Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)</i>	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
<b>Calculation</b>	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are presented elegantly, clearly, concisely.	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
<b>Application / Analysis</b> <i>Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis</i>	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for judgments, lacking inspiration or nuance leading to marginal conclusions drawn from the work.	Uses the quantitative analysis of data as the basis for tentative judgments, and is hesitant or uncertain about drawing conclusions from this work.
<b>Assumptions</b> <i>Ability to make and evaluate important assumptions in estimation, modeling, and data analysis</i>	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides rationale for why assumptions are appropriate. Shows awareness that final conclusions are limited by the accuracy of the assumptions.	Partially describes assumptions with incomplete rationale..	Attempts to describe assumptions without rationale..
<b>Communication</b> <i>Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)</i>	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explains it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work. The data is presented in an effective format.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

# LLU INSTITUTIONAL LEARNING OUTCOME: PROFESSIONAL CRITICAL THINKING RUBRIC

*Based on the AAC&U Critical Thinking VALUE Rubric<sup>1</sup>*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Loma Linda University (LLU) is a largely graduate and professional health sciences institution. Dr. Lynda Daniel-Underwood developed a clinical version of the AAC&U Critical Thinking Rubric for the School of Medicine. The LLU Learning Outcome Committee took Dr. Daniel-Underwood's version of the rubric she developed for the MD program and broadened it to be applicable for practice in a variety of settings to include programs with clinicals, practica, and field experiences.

## Definition

Critical thinking is higher level reasoning using professional judgment with appropriate and reliable sources to make evidence-based decisions.

## Framing Language

This Professional Critical Thinking Rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those competencies in various and changing situations encountered in diverse environments. This rubric is designed for use with many different types of environments, and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in situations that require students to complete analyses of complex professional experiences and issues.

## Notes on Uses of the Rubric

- **Zero Score:** Evaluators are encouraged to assign a zero to any work sample or resolution of a problem that does not meet level one performance.
- **Contextualizing the Rubric:** Programs may further modify this rubric to fit their unique disciplines' needs.

## Glossary

*The definitions that follow were developed to clarify terms and concepts used in this rubric only.*

- **Sources:** Reliable books, statements, people, etc., supplying appropriate information<sup>2</sup>.
- **Problem:** A practical situation within the discipline/profession that needs resolution.
- **Professional ILO<sup>3</sup>:** Professional programs and skills-intensive disciplines may adapt and assess LLU's ILOs and rubrics to meet their unique learning and assessment needs.
- **Reliable:** Peer-acceptable, trusted standards and sources<sup>4</sup>.

---

<sup>1</sup> AAC&U Critical Thinking Rubric was initially revised by Dr. Lynda Daniel-Underwood, LLU School of Medicine, for the clinical setting and was further revised by LLU Learning Outcomes Committee; AAC&U - <http://www.aacu.org/value/metarubrics.cfm> - [value@aacu.org](mailto:value@aacu.org); LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page> - [assessment@llu.edu](mailto:assessment@llu.edu).

<sup>2</sup> Based on Dictionary.com: <http://www.dictionary.com/browse/source?s=t>

<sup>3</sup> LLU's Professional Institutional Learning Outcomes:

<sup>4</sup> Based on Dictionary.com: <http://www.dictionary.com/browse/reliable?s=t>

# LLU INSTITUTIONAL LEARNING OUTCOME: PROFESSIONAL CRITICAL THINKING RUBRIC

Based on the AAC&U Critical Thinking VALUE Rubric<sup>5</sup>

## Definition

Critical thinking is higher level reasoning using professional judgment with appropriate and reliable sources to make evidence-based decisions.

*Evaluators are encouraged to assign a zero to any work sample or resolution of a problem that does not meet level one performance.*

	4	3	2	1
<b>Identify the presented problem(s)</b>	Identifies problem(s) accurately, independently, and with expertise.	Identifies problem(s) accurately and independently.	Identifies problem(s) without accuracy or broad focus but seeks input.	Inaccurately identifies the problem nor seeks input when appropriate.
<b>Gain new information</b>	Gathers sufficient and appropriate information from reliable sources.	Gathers appropriate information from reliable sources.	Gathers insufficient information from standard and unreliable sources.	Gathers unreliable information from various sources.
<b>Define key components within context of the presented problem(s)</b>	Defines, formulates and prioritizes individualized multiple solutions to the presented problem(s) based on prior knowledge and the evidence.	Defines and formulates a solution to the presented problem(s) based on prior knowledge and the evidence.	Defines and formulates an ineffective solution to the presented problem(s).	Defines and formulates an inappropriate solution to the presented problem(s).
<b>Integrate knowledge and expertise for decision-making</b>	Articulates the complexities of the presented problem(s) and uses prior knowledge and skills to fully assess the complexities of the proposed solution.	Articulates the complexities of the presented problem(s) and uses prior knowledge and skills to assess the appropriateness of the proposed solution.	Articulates some of the complexities of the presented problem(s) to partially assess the proposed solution.	Articulates a simplistic approach to the presented complex problem(s).
<b>Solve problem safely and implement effectively</b>	Effectively resolves the presented problem(s) safely using approved standard protocols and suggests new solutions based on sound evidence.	Safely resolves the presented problem(s) and effectively uses approved standard protocols, devising individualized solutions when appropriate.	Ineffectively resolves the presented problem(s) or incompletely uses standard protocols.	Unsafely addresses the presented problem(s).

<sup>5</sup> AAC&U Critical Thinking Rubric revised by Dr. Lynda Danial-Underwood, LLU School of Medicine, and the LLU Learning Outcomes Committee; AAC&U - <http://www.aacu.org/value/metarubrics.cfm> - [value@aacu.org](mailto:value@aacu.org); LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page> - [assessment@llu.edu](mailto:assessment@llu.edu).

# LLU INSTITUTIONAL LEARNING OUTCOME: PROFESSIONAL CRITICAL THINKING RUBRIC

*Based on the AAC&U Critical Thinking VALUE Rubric<sup>1</sup>*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Loma Linda University (LLU) is a largely graduate and professional health sciences institution. Dr. Lynda Daniel-Underwood developed a clinical version of the AAC&U Critical Thinking Rubric for the School of Medicine. The LLU Learning Outcome Committee took Dr. Daniel-Underwood's version of the rubric she developed for the MD program and broadened it to be applicable for practice in a variety of settings to include programs with clinicals, practica, and field experiences.

## Definition

Critical thinking is higher level reasoning using professional judgment with appropriate and reliable sources to make evidence-based decisions.

## Framing Language

This Professional Critical Thinking Rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those competencies in various and changing situations encountered in diverse environments. This rubric is designed for use with many different types of environments, and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in situations that require students to complete analyses of complex professional experiences and issues.

## Notes on Uses of the Rubric

- **Zero Score:** Evaluators are encouraged to assign a zero to any work sample or resolution of a problem that does not meet level one performance.
- **Contextualizing the Rubric:** Programs may further modify this rubric to fit their unique disciplines' needs.

## Glossary

*The definitions that follow were developed to clarify terms and concepts used in this rubric only.*

- **Sources:** Reliable books, statements, people, etc., supplying appropriate information<sup>2</sup>.
- **Problem:** A practical situation within the discipline/profession that needs resolution.
- **Professional ILO<sup>3</sup>:** Professional programs and skills-intensive disciplines may adapt and assess LLU's ILOs and rubrics to meet their unique learning and assessment needs.
- **Reliable:** Peer-acceptable, trusted standards and sources<sup>4</sup>.

---

<sup>1</sup> AAC&U Critical Thinking Rubric was initially revised by Dr. Lynda Daniel-Underwood, LLU School of Medicine, for the clinical setting and was further revised by LLU Learning Outcomes Committee; AAC&U - <http://www.aacu.org/value/metarubrics.cfm> - [value@aacu.org](mailto:value@aacu.org); LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page> - [assessment@llu.edu](mailto:assessment@llu.edu).

<sup>2</sup> Based on Dictionary.com: <http://www.dictionary.com/browse/source?s=t>

<sup>3</sup> LLU's Professional Institutional Learning Outcomes:

<sup>4</sup> Based on Dictionary.com: <http://www.dictionary.com/browse/reliable?s=t>

# LLU INSTITUTIONAL LEARNING OUTCOME: PROFESSIONAL CRITICAL THINKING RUBRIC

Based on the AAC&U Critical Thinking VALUE Rubric<sup>5</sup>

## Definition

Critical thinking is higher level reasoning using professional judgment with appropriate and reliable sources to make evidence-based decisions.

*Evaluators are encouraged to assign a zero to any work sample or resolution of a problem that does not meet level one performance.*

	4	3	2	1
<b>Identify the presented problem(s)</b>	Identifies problem(s) accurately, independently, and with expertise.	Identifies problem(s) accurately and independently.	Identifies problem(s) without accuracy or broad focus but seeks input.	Inaccurately identifies the problem nor seeks input when appropriate.
<b>Gain new information</b>	Gathers sufficient and appropriate information from reliable sources.	Gathers appropriate information from reliable sources.	Gathers insufficient information from standard and unreliable sources.	Gathers unreliable information from various sources.
<b>Define key components within context of the presented problem(s)</b>	Defines, formulates and prioritizes individualized multiple solutions to the presented problem(s) based on prior knowledge and the evidence.	Defines and formulates a solution to the presented problem(s) based on prior knowledge and the evidence.	Defines and formulates an ineffective solution to the presented problem(s).	Defines and formulates an inappropriate solution to the presented problem(s).
<b>Integrate knowledge and expertise for decision-making</b>	Articulates the complexities of the presented problem(s) and uses prior knowledge and skills to fully assess the complexities of the proposed solution.	Articulates the complexities of the presented problem(s) and uses prior knowledge and skills to assess the appropriateness of the proposed solution.	Articulates some of the complexities of the presented problem(s) to partially assess the proposed solution.	Articulates a simplistic approach to the presented complex problem(s).
<b>Solve problem safely and implement effectively</b>	Effectively resolves the presented problem(s) safely using approved standard protocols and suggests new solutions based on sound evidence.	Safely resolves the presented problem(s) and effectively uses approved standard protocols, devising individualized solutions when appropriate.	Ineffectively resolves the presented problem(s) or incompletely uses standard protocols.	Unsafely addresses the presented problem(s).

<sup>5</sup> AAC&U Critical Thinking Rubric revised by Dr. Lynda Danial-Underwood, LLU School of Medicine, and the LLU Learning Outcomes Committee; AAC&U - <http://www.aacu.org/value/metarubrics.cfm> - [value@aacu.org](mailto:value@aacu.org); LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page> - [assessment@llu.edu](mailto:assessment@llu.edu).

# LLU INSTITUTIONAL LEARNING OUTCOME: ORAL COMMUNICATION RUBRIC

*Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>1</sup>.*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

*The type of oral communication most likely to be included in a collection of student work is an oral presentation and therefore is the focus for the application of this rubric.*

## Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

## Framing Language

Oral communication takes many forms. This rubric is specifically designed to evaluate oral presentation of a single speaker at a time and is best applied to live or video-recorded presentations. For panel presentations or group presentations, it is recommended that each speaker be evaluated separately. This rubric best applies to presentations of sufficient length such that a central message is conveyed, supported by one or more forms of supporting materials and includes a purposeful organization. An oral answer to a single question not designed to be structured into a presentation does not readily apply to this rubric.

## Glossary

*The definitions that follow were developed to clarify terms and concepts used in this rubric only.*

- **Central message:** The main point/thesis/"bottom line"/"take away" of a presentation. A clear central message is easy to identify; a compelling central message is also vivid and memorable.
- **Delivery techniques:** Posture, gestures, eye contact, and use of the voice. Delivery techniques enhance the effectiveness of the presentation when the speaker stands and moves with authority, looks more often at the audience than at his/her speaking materials/notes, uses the voice expressively, and uses few vocal fillers ("um," "uh," "like," "you know," etc.).
- **Language:** Vocabulary, terminology, and sentence structure. Language that supports the effectiveness of a presentation is appropriate to the topic and audience, grammatical, clear, and free from bias. Language that enhances the effectiveness of a presentation is also vivid, imaginative, and expressive.
- **Organization:** The grouping and sequencing of ideas and supporting material in a presentation. An organizational pattern that supports the effectiveness of a presentation typically includes an introduction, one or more identifiable sections in the body of the speech, and a conclusion. An organizational pattern that enhances the effectiveness of the presentation reflects a purposeful choice among possible alternatives, such as a chronological pattern, a problem-solution pattern, an analysis-of-parts pattern, etc., that makes the content of the presentation easier to follow and more likely to accomplish its purpose.
- **Supporting material:** Explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities, and other kinds of information or analysis that supports the principal ideas of the presentation. Supporting material is generally credible when it is relevant and derived from reliable and appropriate sources. Supporting material is highly credible when it is also vivid and varied across the types listed above (e.g., a mix of examples, statistics, and references to authorities). Supporting material may also serve the purpose of establishing the speaker's credibility. For example, in presenting a creative work such as a dramatic reading of Shakespeare, supporting evidence may not advance the ideas of Shakespeare, but rather serve to establish the speaker as a credible Shakespearean actor.

<sup>1</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>



# LLU INSTITUTIONAL LEARNING OUTCOME: ORAL COMMUNICATION RUBRIC

Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](http://value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>2</sup>.

## Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet level-one performance.*

	4	3	2	1
<b>Organization</b>	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
<b>Language</b>	Language choices are imaginative, memorable and compelling and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
<b>Delivery</b>	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
<b>Supporting material</b>	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis which minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
<b>Central Message</b>	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.

<sup>2</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>

# LLU PROFESSIONAL INSTITUTIONAL LEARNING OUTCOME: ORAL COMMUNICATION RUBRIC

*Based on the AAC&U Oral Communication VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>1</sup>.*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, *not for grading*. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

The LLU Learning Outcomes Committee developed this rubric to be applicable for practice in a variety of settings to include programs with clinicals, practica, and field experiences. The type of oral communication most likely to be included in a collection of student experiences in these settings is an oral interaction, and therefore is the focus for the application of this rubric.

## Definition

Oral communication is a purposeful interaction designed to increase knowledge, to foster understanding, and/or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

## Framing Language

Oral communication takes many forms. This rubric is specifically designed to evaluate professional oral interaction with patients and their families, colleagues and/or staff. This rubric best applies to oral communication in professional settings.

## Notes on Uses of the Rubric

- **Zero Score:** Evaluators are encouraged to assign a zero to any interaction that does not meet level one performance.
- **Contextualizing the Rubric:** Programs may further modify this rubric to fit their unique disciplines' needs.
- **More Assessment Information:** <http://home.llu.edu/academics/academic-resources/educational-effectiveness/assessment>

---

<sup>1</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>

# LLU PROFESSIONAL INSTITUTIONAL LEARNING OUTCOME: ORAL COMMUNICATION RUBRIC

Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](http://value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>2</sup>.

## Definition

Oral communication is a purposeful interaction designed to increase knowledge, to foster understanding, and/or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet level-one performance.*

	4	3	2	1
<b>Trust Building Skills</b>	Consistently encourages partnership, respect, and rapport between others and self.	Frequently encourages partnership, respect, and rapport between others and self.	Occasionally encourages partnership, respect, and rapport between others and self.	Rarely encourages partnership, respect, and rapport between others and self.
<b>Listening/ Empathy Skills</b>	Consistently attentive and responds with understanding to others' ideas, values, and feelings.	Frequently attentive and responds with understanding to others' ideas, values, and feelings.	Occasionally attentive and somewhat responsive to others' ideas, values, and feelings.	Rarely attentive and responds superficially to others' ideas, values, and feelings.
<b>Verbal Skills</b>	Consistently communicates clearly and consistently with appropriate word choices that are memorable, compelling, enhancing the effectiveness of the dialogue.	Frequently communicates clearly, thoughtfully and effectively; speaker appears comfortable and adjusts message when others do not understand.	Occasionally communicates inappropriately; speaker appears tentative.	Rarely communicates appropriately or effectively; speaker appears uncomfortable.
<b>Non-Verbal Skills</b>	Consistently uses culturally-appropriate body language including: eye contact, vocal tone and facial expressions.	Frequently uses culturally-appropriate body language including: eye contact, vocal tone and facial expressions.	Occasionally uses culturally-appropriate body language including: eye contact, vocal tone and facial expressions.	Rarely uses culturally-appropriate body language including: eye contact, vocal tone and facial expressions.
<b>Response to Conflict</b>	Consistently addresses conflict constructively; helps to manage/resolve issues in a way that strengthens the relationship.	Frequently addresses conflict constructively; helps to manage/resolve issues in a way that strengthens the relationship.	Occasionally addresses conflict constructively; helps to manage/resolve issues in a way that strengthens the relationship.	Rarely addresses conflict; has difficulty managing/resolving issues.

<sup>2</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>

# LLU INSTITUTIONAL LEARNING OUTCOME: WRITTEN COMMUNICATION RUBRIC

## DEVELOPED FOR USE IN PROFESSIONAL AND ACADEMIC ASSESSMENTS

*Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>1</sup>.*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, **not for grading**. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all academic levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialogue and understanding of student success.

### Definition

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum. Professional writing in a skills-based environment includes a vocabulary specific to the discipline.

### Framing Language

This writing rubric is designed for use in a wide variety of educational programs. The most clear finding to emerge from decades of research on writing assessment is that the best writing assessments are locally determined and sensitive to local context and mission. Users of this rubric should, in the end, consider making adaptations and additions that clearly link the language of the rubric to individual campus contexts.

This rubric focuses assessment on how specific written work samples or collections of work respond to specific contexts. The central question guiding the rubric is “How well does writing respond to the needs of audience(s) for the work?” Evaluators using this rubric must have a clear understanding of the assignment and the writer’s interpretation. **It is important for faculty and institutions to include directions for writers about how they should represent the contexts and purposes of their work.**

### Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Context of and purpose for writing:** The context of writing is the situation surrounding a text: Who is reading it? Who is writing it? Under what circumstances will the text be shared or circulated? What social or political factors might affect how the text is composed or interpreted? The purpose for writing is the writer’s intended effect on an audience. Writers might want to persuade or inform; they might want to report or summarize information; they might want to work through complexity or confusion; they might want to argue with other writers, or connect with other writers; they might want to convey urgency or amuse; they might write for themselves or for an assignment.
- **Communication effectiveness:** Formal and informal rules that constitute what is seen generally as appropriate within the discipline, e.g., introductory strategies, use of passive voice or first person point of view, expectations for thesis or hypothesis, expectations for kinds of evidence and support that are appropriate to the task at hand.
- **Genres and Conventions:** Formal and informal rules for particular kinds of texts and/or media that guide formatting, organization, and stylistic choices, e.g., lab reports, academic papers, poetry, webpages, or personal essays.
- **Sources and Evidence:** Source material that is used to extend, in purposeful ways, writers’ ideas in a text such as the use of primary and secondary sources to provide evidence, support arguments, and document critical perspectives on the topic. Writers will incorporate sources according to disciplinary and genre conventions, according to the writer’s purpose for the text. Through increasingly sophisticated use of sources, writers will develop an ability to differentiate between their own ideas and the ideas of others, to be mindful of academic integrity, to credit and build upon work already accomplished in the field or issue they are addressing, and to provide meaningful examples to readers.
- **Syntax and mechanics:** The ability to effectively use language in written form for a variety of purposes—to extend, argue with, develop, define, or shape their ideas.

---

<sup>1</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>

# LLU INSTITUTIONAL LEARNING OUTCOME: WRITTEN COMMUNICATION RUBRIC

## DEVELOPED FOR USE IN PROFESSIONAL AND ACADEMIC ASSESSMENTS

Based on the AAC&U Written Communication VALUE Rubric, [value@aacu.org](mailto:value@aacu.org), [assessment@llu.edu](mailto:assessment@llu.edu), or see sites below<sup>2</sup>.

### Definition

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum. Professional writing in a skills based environment includes a vocabulary specific to the discipline.

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet level-one performance.*

	4	3	2	1
<b>Context of and purpose for writing</b>	Demonstrates thorough knowledge of context, audience, and purpose that clearly focuses to the assigned task(s) and communicates meaning effectively.	Demonstrates adequate knowledge of context, audience, and purpose on the assigned task(s). The task aligns with audience, purpose, and context.	Demonstrates limited knowledge of context, audience, and purpose of the assigned task(s). The task partially aligns with audience, purpose, and context.	Demonstrates minimal knowledge to context, audience, purpose, and to the assigned task(s).
<b>Communication effectiveness</b>	Uses accurate, relevant, and compelling content to explore ideas within the context of the discipline that shapes the whole work.	Uses appropriate and relevant content that clearly expresses ideas through most of the work.	Uses appropriate and relevant content to develop and explore ideas through some of the work.	Uses minimal appropriate and relevant content to develop simple ideas in minimal parts of the work.
<b>Genres and conventions</b>	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s) including organization, content, presentation, formatting, and stylistic choices.	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices.	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation.	Attempts to use a consistent system for basic organization and presentation.
<b>Sources and evidence</b>	Demonstrates skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.	Demonstrates consistent use of credible, and relevant sources to support ideas that are appropriate within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas for the discipline and genre of the writing.	Demonstrates a minimal attempt to use credible sources to support ideas in the writing.
<b>Syntax and mechanics</b>	Uses appropriate language and mechanics that skillfully communicate meaning to readers with clarity, fluency and is virtually error-free.	Uses language and mechanics that generally convey meaning to readers with clarity and has minimal errors.	Uses language and mechanics that generally convey meaning to readers although writing includes many errors.	Uses language and mechanics that sometimes impede meaning because of errors in usage.

<sup>2</sup> AAC&U - <http://www.aacu.org/value/metarubrics.cfm>; LLU Office of Educational Effectiveness - <http://www.llu.edu/central/assessment/index.page>

# LLU MISSION FOCUSED LEARNING OUTCOME: WHOLENESS

Loved by God, to Grow in Health, and to Live with Purpose Within Community.

One of Loma Linda University's Mission-Focused Learning Outcomes is wholeness. The course you are now taking is designed to help you apply and document the philosophy of wholeness in your personal and professional life. Wholeness is defined by the University as "loved by God," "growing in health," and "living with purpose in community." In this survey you will first be asked to select the program and course you are in and the name of your instructor. Following that you will be asked to respond on the three aspects of wholeness. Please take a minute to reflect on each of the elements and assess which statement best describes your life today. When you reflect, be honest with yourself. There are no right or wrong answers. Your responses will be aggregated with others.

After your wholeness assessment, feel free to note areas of strength or where you would like to see improvement. This is optional.

During the final year of your program, you will be asked to reassess yourself. Again, there are no right or wrong answers. The reassessment provides you with an opportunity to reflect on your LLU experiences and personal level of wholeness. You will also be asked what factors you feel most influenced your reassessment choices.

<i>Criteria</i>				
<b>Loved by God (Spiritual)</b>	I am committed to sharing with others how to experience and share God's love just as I have endeavored to do.	I incorporate the love of God into my personal and professional life and share with others when given the opportunity.	I incorporate the knowledge that God loves me into my personal and professional life.	I know what it means to be loved by God.
<b>Growing in Health (Personal &amp; Professional)</b>	I make it a purpose to mentor or coach others in attaining their health goals in both their personal and professional lives.	I share with others evidence-based health resources for both their personal and professional lives.	I actively integrate health principles into my personal and professional life.	I have identified a variety of evidence-based health principles for my personal and professional life.
<b>Living with Purpose in Community (Social)</b>	I develop plans or take part in leadership efforts so others can participate in community service programs.	I participate in community service, service learning and/or clinics beyond the requirements of the program.	I participate in community service, service learning and/or clinics to meet program requirements.	I am aware of community programs offered through a variety of venues.

(Optional) Personal Strengths/Areas for Personal Growth: \_\_\_\_\_

# Mission Focused Learning Standards with Best Practice Examples for Courses

Loma Linda University  
September 12, 2018

## MFL Standards for Programs and Courses

To further the teaching and healing ministry of Jesus Christ "to make man whole," LLU's programs and courses will:

1. Integrate faith in God and course content in appropriate, relevant and meaningful ways.
2. Orient and prepare students for lives of service, exemplifying LLU's core values.
3. Emphasize health and wholeness<sup>1</sup> informed by the Adventist perspective.

## Best Practice Examples Fulfill the MFL Standards for Courses

The MFL standards are required for programs and courses; however, the best practices for each standard are *meant to be examples* that inspire faculty to use as is or to develop their own.

1. **Integrate faith in God and course content in appropriate, relevant and meaningful ways.**
  - ⦿ Include Biblical references or Scriptural passages with tools such as [BibleGateway.com](http://BibleGateway.com), text, videos, and narratives.
  - ⦿ Reference spiritual experiences and stories from personal experience and Christian writers including Ellen White and other Christian writers, plus historical Adventist stories.
  - ⦿ Incorporate or reference prayer in interactions with students through discussions, announcements, and Zoom conferences.
  - Develop discussions/conversations, self-assessment exercises, case studies, and other assignments that require implementing faith, LLU's vision, mission and/or values into the learning experience in as natural way as possible.
2. **Orient and prepare students for lives of service exemplifying LLU's core values.**
  - ⦿ Exemplify the LLU values in interactions with students.
  - Strive to integrate one or more of LLU core values—JCHIEFS<sup>2</sup>—into each course.
  - ⦿ Give stories or case studies of how a specific value is exemplified.
  - Have students watch videos focused on the course topic and have students reflect, discuss, and apply what they learned in it. "[A Certain Kind of Light: What would we hear if we really listened?](#)" is a video that would be appropriate for many health care courses.
  - ⦿ Provide scriptural verses/passages, philosophies, contemporary quotes, etc., addressing the core value being taught.
  - ⦿ Assign student journals with self-reflections about how the course impacts student life. (Video or text-based format).
  - Share students' experiences in service, such as: [A Pioneer's Life for Me](#).

<sup>1</sup>LLU Wholeness: Loved by God, growing in health, living with purpose in community

<sup>2</sup>LLU Core Values: JCHIEFS – Justice, Compassion, Humility, Integrity, Excellence, Freedom, Self-control/purity

- ⦿ Ensure that online students understand that they may participate in [LLU SIMS](#) trips. They can also find local opportunities to serve in their own communities similar to [LLU CAPS](#) opportunities.
- 3. Emphasize health and wholeness<sup>11</sup> informed by the Adventist perspective.**
- ⦿ Keep wholeness in mind when selecting learning activities (journal, videos, resources, etc.)
  - ⦿ Encourage healthy life-style practices (work-life balance, rest, vegetarianism, exercise, developing and maintaining relationships).
  - ⦿ Present and discuss the latest credible scientific studies/research on healthy practices such as [Paper explores global influence of the Seventh-day Adventist Church on diet](#).
  - ⦿ Promote awareness of mental health (depression, anxiety, suicide), connecting students to resources, and encouraging hope.
  - ⦿ Invite prayer requests and have prayer (phone, videoconference, text-based discussion board), etc., share a meaningful prayer.
  - ⦿ Use community-applied learning activities (service-learning, community outreach, family and workplace) in the spirit of LLU's mission.
  - ⦿ Provide online communities and social media spaces (for interactions around impacts in life, prayer, coaching, inspiring each other).
  - ⦿ Encourage or require students to view online University@Worship services (Wednesdays and recorded sessions). There may be opportunities for online students to participate in live University@Worship services, such as giving prayer, via Zoom. If interested, contact the LLU online chaplain: [K.C. Hohensee](#). Provide discussion/reflection opportunities.
  - ⦿ Provide links to selected external Seventh-day Adventist resources in areas of health, family relations, spiritual life, etc.

### **MFL Resource Library to be Published in Every Online Course**

This library would include many resources including the following:

- ⦿ Bible-centered video clips, verses, stories, worship thought, devotionals ([www.biblegateway.com](http://www.biblegateway.com))
- ⦿ Ellen G. White - selected quotes from her inspired writings ([www.whiteestate.org](http://www.whiteestate.org), <https://egwwritings.org>)
- ⦿ Seventh-day Adventist Health Heritage (stories, ideas, tips, experiences, resources) (<http://www.adventistheritage.org/article/136/resources/pioneer-stories>)
- ⦿ [History of Loma Linda University: The Pioneers](#)
- ⦿ LLU missionary stories, community experiences. New School of Dentistry book of stories will be coming out about how alumni have lived LLU values, experience, and education. School of Medicine has two devotional books: [Morning Rounds](#) and [Evening Rounds](#).
- ⦿ [LLU 360 videos](#)
- ⦿ Inspirational stories