

Student Outcomes Assessment Plan (SOAP)

FRESNO STATE

Lyles College of Engineering

Department of Construction Management

Academic Year 2016-2017

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I. Mission, Vision, Values & Program Objectives

The **mission** of the Department of Construction Management is to “develop professionals, build leaders, and sustain learners for the architecture, engineering and construction (AEC) industry”.

The **vision** of the Department of Construction Management is to “build prominent engaged leaders in the regional, national, and international construction industries”.

The Department of Construction Management is also committed to the following **values**:

- Excellence in teaching, mentoring, and leadership
- Collegiality and strong sense of academic community
- Strong ties with alumni and industry
- Diverse, family environment
- Enriched, universal learning
- Work-life balance
- Professionalism and mutual respect
- Community engagement
- Experiential learning

The Department of Construction Management has the following educational **program objectives**:

- Establish the technical and management abilities of a construction professional (project management)
- Manifest the qualities of a construction leader (business/team leadership)
- Define lifelong learning and list specific ways that you can continuously improve your knowledge, skills, and abilities throughout your construction career

II. Program Learning Outcomes and Student Learning Outcomes

It is important to note that the American Council for Construction Education (ACCE), the academic accreditation organization of construction management programs, has recently revised its standards and criteria for accreditation to reflect an outcome-based assessment approach, effective fall 2015. Accordingly, the CM program learning outcomes have been updated to be consistent with the new ACCE requirements since the last review cycle. Specifically, the new 20 ACCE student learning outcomes (SLOs) have been used in lieu of the original 12 program learning outcomes (PLOs), as shown in Table 1 below. Notice that the 3 General Education SLOs remain as part of the new PLOs.

Table 1. Updated CM Program Learning Outcomes Per Accreditation Requirements.

Old PLOs		New ACCE SLOs	
1	Communication	1	Create written communications appropriate to the construction discipline.
2	Leadership	2	Create oral presentations appropriate to the construction discipline.
3	Team Relations	3	Create a construction project safety plan.
4	Problem Solving/ Critical Thinking	4	Create construction project cost estimates.

5	Business Management	5	Create construction project schedules.
6	Procurement & Pre-Construction	6	Analyze professional decisions based on ethical principles.
7	Project Administration & Control	7	Analyze construction documents for planning and management of construction processes.
8	Construction Knowledge	8	Analyze methods, materials, and equipment used to construct projects.
9	Legal & Ethical Responsibilities	9	Apply construction management skills as a member of a multi-disciplinary team.
10	Integrated Project Practices	10	Apply electronic-based technology to manage the construction process.
11	Sustainability	11	Apply basic surveying techniques for construction layout and control.
12	Safety	12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
	GE SLOs	13	Understand construction risk management.
GE-E	Lifelong Learning	14	Understand construction accounting and cost control.
GE-IB	Integration	15	Understand construction quality assurance and control.
GE-ID	Integration	16	Understand construction project control processes.
		17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.
		18	Understand the basic principles of sustainable construction.
		19	Understand the basic principles of structural behavior.
		20	Understand the basic principles of mechanical, electrical and piping systems.
			GE SLOs
		GE-E	Lifelong Learning
		GE-IB	Integration
		GE-ID	Integration

III. ACCE+GE SLOs and Course Mapping

To align program assessment efforts with ACCE accreditation, a comprehensive mapping was conducted to allocate the 20 ACCE SLOs and 3 GE SLOs assessment efforts to CM major courses and relevant non-CM courses assessment. The complete mapping is summarized below in Table 2. Considering there are both lower division and upper division courses, the ACCE SLOs will be thus assessed at different levels in these courses, which include: **I** = Introduced, **T** = Taught, and **U** = Utilized. Course that are used to directly assess the allocated ACCE SLOs will be labeled with Direct Assessment (**DA**).

Table 2. ACCE+GE SLOs and CM Course Mapping.

	ACCE SLOs																				GE SLOs		
	Create					Analyze			Apply			Understand									GE	GE	GE
Courses	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	E	IB	ID
CM1-CM Orien.			I		I	I							I					I			I,		
CM4-Const. Gfx.		I,					I		I,	I										I			
CM7S-Const. Materials			T					I				I									T,		

V. Assessment Methods

Assessment of the ACCE+GE SLOs is achieved through formative instruments to measure students' progress while going through the program, and with summative instruments to measure the students' level of achievement at the end of the program. Assessment methods are also divided into direct measures and indirect measures. Direct measures are defined here as first-hand objective assessments of student learning. Direct measure instruments are typically implemented by a course instructor. Indirect measures are defined here as subjective assessments of student learning that are typically reported by the student or a third-party. In summary, the CM department uses the following direct and indirect measures for SLOs assessment:

- Direct Measures
 - Course specific assignments, quizzes, projects (formative)
 - Capstone projects (summative)
 - Associate Constructor (AC) Certification Exam (summative)
- Indirect Measures
 - Course specific surveys and peer evaluations (formative)
 - CM Student Competition (formative)
 - CM Student Internship Report (formative)
 - CM Senior Exit Survey (Fall & Spring, summative)
 - CM Alumni Survey (Spring, summative)
 - CM Employer Survey (Fall, summative)

The primary mechanism for assessing the ACCE+GE SLOs is to assess the courses labeled as **Direct Assessment** with the mapped CLOs with a two-year review cycle. This two-year review cycle is part of the so-called “Course Kaizen” series implemented in the Department of Construction Management. Each course Kaizen session takes approximately 3 hours and strives to fulfill the two key pillars of lean: *respect for people* and *continuous improvements*. In the Course Kaizen session, the instructor will present a course assessment matrix to explicitly explain the relationship between ACCE+GE SLOs and related CLOs, the assessment measures (both direct and indirect) used, minimum standards and the department’s assessment targets. To give some examples, in AY 2016-17, the Department conduct Course Kaizen sessions for CM1S, CM4, CM7S and CM20. Tables 4-7 present these assessment matrices.

Table 4. CM1S – CM Orientation Course Assessment Matrix.

#	Course Learning Outcome	ACCE SLOs	Assessment Measures (D: Direct; ID: Indirect)	Minimum Standards	Assessment Targets
6	Describe the significance of participating in service to community, and explain how civic engagement relates to construction professional development and lifelong learning (Direct Assessment)	GE-E	D1: Service-learning reflection paper D2: Service-learning video	70% (C)	≥ 80% with grade C or better

Table 5. CM4 - Construction Graphics Course Assessment Matrix.

#	Course Learning Outcomes (CLOs)	ACCE SLOs	Assessment Measures (D: Direct; ID: Indirect)	Minimum Standards	Assessment Targets
1	Explain and present design concepts, construction drawings components, bid documentation and specifications with appropriate vocabulary and terminology (Direct Assessment)	SLO 2	D1: \$300 House Challenge Project Presentation; D2: Walmart Project Report Out	70% (C)	≥ 80% of students with grade C or better
5	Perform design and management tasks efficiently via collaboration with other members in a multidisciplinary team environment (Direct Assessment)	SLO 9	D1: \$300 House Challenge Project Submittals; ID1: Peer Evaluation Survey	D1: 70% (C)	≥ 80% of students with grade C or better

Table 6. CM7S – Const. Materials and Basic Building Systems Course Assessment Matrix.

#	Course Learning Outcomes (CLOs)	ACCE SLOs	Assessment Measures (D: Direct; ID: Indirect)	Minimum Standards	Assessment Targets
5	Recognize basic principles of sustainable design regarding building materials (Direct Assessment)	SLO 18	D1: Sustainability Paper	70% (C)	D1: ≥ 80% of students with grade C or better

Table 7. CM20 - Construction Contracts and Specifications Course Assessment Matrix.

#	Course Learning Outcomes (CLOs)	ACCE SLOs	Assessment Measures (D: Direct; ID: Indirect)	Minimum Standards	Assessment Targets
2	Describe different types of project delivery methods common in the construction industry. (Direct Assessment)	SLO 12	D1: Quiz	70% (C)	≥ 80% of students with grade C or better
3	Utilize construction project management software to track RFI's, submittals, and other common administrative tasks. (Direct Assessment)	SLO 1	D1: Class Deliverables (Transmittal)	Pass by Completion	100% students Pass

In AY 2016-17, the Department of Construction Management also administered several surveys as indirect measures for program assessment purposes, including:

- CM Alumni Survey
- CM Senior Pre-exit and Exit Survey

Nevertheless, due to the change of the ACCE accreditation requirements, these survey instrument will need updating to reflect the new ACCE SLOs. As a result, the results of the AY 2016-17 surveys were not included in the program assessment report. The CM department also conducted an Industry Advisory Board (IAB) survey on their perceptions towards the ACCE SLOs to establish program priorities.

VI. Findings & Lessons Learned of AY 2016-17 Review Cycle

The AY 2016-17 program assessment results of related ACCE and GE SLOs were presented below with details related to assessment targets. For each SLO, the CM faculty also discussed particular strengths and weakness in the Course Kaizen meetings.

Table 8. SLO 1: Create written communications appropriate to the construction discipline (Enrollment N=23, Effective Count =20).

Measures	Target	Unsatisfactory (F: Below 60%)	Below Expectation (D: 60% ~ 69.9%)	Competent (C: 70% ~ 79.9%)	Proficient (B: 80% ~ 89.9%)	Advanced (A: 90% or Better)	% with C or better
Class Deliverables Transmittal	100% "Pass" by Completion	10.0% (2)	N/A	N/A	N/A	90.0% (18)	90.0% Target Missed

SLO 1 Discussion Notes:

- The transmittal was evaluated based upon a simple binary pass/fail grading scheme. The instructor planned to use a better grading rubric that assesses the actual writing ability of the students.
- There was only 1 direct measure used for SLO 1 in this assessment cycle. The instructor was recommended to add more measures in future assessment.

Table 9. SLO 2: Create oral presentations appropriate to the construction discipline (Enrollment N=40, Effective Count =40).

Measures	Target	Unsatisfactory (F: Below 60%)	Below Expectation (D: 60% ~ 69.9%)	Competent (C: 70% ~ 79.9%)	Proficient (B: 80% ~ 89.9%)	Advanced (A: 90% or Better)	% with C or better
*\$300 House Challenge Project - Presentation	≥ 80% with grade C or better	0.0% (0)	15.0% (6)	17.5% (7)	40.0% (16)	27.5% (11)	85% Target Met

**Walmart Project Report Out	≥ 80% with grade C or better	2.5% (1)	5.0% (2)	10.0% (4)	50.0% (20)	32.5% (13)	92.5% Target Met
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*, **: both assessment measures used the **Oral Presentation Grading Rubric**, which is included in the **Appendix** section.

SLO 2 Discussion Notes:

- Students did very well in SLO 2 assessment, and demonstrated unprecedented learning engagement in the \$300 House Challenge project due to the authenticity and creativity of the project.
- Assessed in an entry level class, the assessment target may be elevated to “≥ 80% with grade B or better” in the future.

Table 10. SLO 9: Apply construction management skills as a member of a multi-disciplinary team (Enrollment N=40, Effective Count =40).

Measures	Target	Unsatisfactory (F: Below 60%)	Below Expectation (D: 60% ~ 69.9%)	Competent (C: 70% ~ 79.9%)	Proficient (B: 80% ~ 89.9%)	Advanced (A: 90% or Better)	% with C or better
\$300 House Challenge - Project Submittals*	≥ 80% with grade C or better	0.0% (0)	2.5% (1)	0.0%	50.0% (20)	47.5% (19)	97.5% Target Met

*The \$300 House Challenge project submittals used the **Project-based Learning Submittal Grading Rubric** will be provided in the **Appendix** section.

SLO 9 Discussion Notes:

- Student did a great job in SLO 9. Project-based learning with civic engagement ingredients provided students with enhanced learning experience and better outcomes in a plethora of skills including communication, teamwork, and leadership.
- Peer evaluation was conducted to better understand team dynamics and the variety of individual contribution to the team.

Table 11. SLO 12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process (Enrollment N=23, Effective Count =22).

Measures	Target	Unsatisfactory (F: Below 60%)	Below Expectation (D: 60% ~ 69.9%)	Competent (C: 70% ~ 79.9%)	Proficient (B: 80% ~ 89.9%)	Advanced (A: 90% or Better)	% with C or better
Assessment Quiz 2	≥ 80% with grade C or better	13.6% (3)	18.2% (4)	9.1% (2)	13.6% (3)	45.5% (10)	68.2% Target Missed

SLO 12 Discussion Notes

- Through direct conversation with students, the instructor reflected that the assessment quiz might have been too challenging for students, due to the amount of content. Revision was planned in future assessment cycle.
- There was only 1 direct measure used for SLO 12 in this assessment cycle. The instructor was recommended to add more measures in future assessment.

Table 12. SLO 18: Understand the basic principles of sustainable construction (Enrollment N=36, Effective Count =29).

Measures	Target	Unsatisfactory (F: Below 60%)	Below Expectation (D: 60% ~ 69.9%)	Competent (C: 70% ~ 79.9%)	Proficient (B: 80% ~ 89.9%)	Advanced (A: 90% or Better)	% with C or better
*Sustainability Paper	≥ 80% with grade C or better	3.4% (1)	0.0% (0)	65.6% (19)	31.0% (9)	0.0% (0)	96.6% Target Met

*: The paper was graded using a **Technical Writing Grading Rubric** which is included in the **Appendix** section.

SLO 18 Discussion Notes

- Students did well in SLO 18, although the completion rate of the Sustainability Paper was low, which affected the validity of the assessment results. The instructor was recommended to improve student engagement, or look for new direct measures for assessing SLO 18.
- There was only 1 direct measure used for SLO 18 in this assessment cycle. The instructor was recommended to add more measures in future assessment.

Table 13. GE-E: Lifelong Learning (Enrollment = 37, Effective Count = 37).

Measures	Target	Unsatisfactory (F: Below 60%)	Below Expectation (D: 60% ~ 69.9%)	Competent (C: 70% ~ 79.9%)	Proficient (B: 80% ~ 89.9%)	Advanced (A: 90% or Better)	% with C or better
*ePortfolio-01	≥ 80% with grade C or better	10	2	6	6	13	67.6% Target Missed
**ePortfolio-10	≥ 80% with grade C or better	22	0	0	0	15	40.5% Target Missed
		No		Yes			
15-Hour Service	≥ 80% Yes	7		30			81.1% Target Met

*, **: All ePortfolios were assessed using an **ePortfolio Grading Rubric** which is included in the **Appendix** section.

GE-E Discussion Notes

- The instructor reflected on the use of ePortfolio as a great way of documenting student efforts and providing evidence of lifelong learning.
- The use of ePortfolio is consistent with the campus-wide effort on ePortfolio-based GE SLOs assessment.
- Student engagement was a big concern in CM1S when reviewing the historical DFW rates of this course. A CSU CRT grant was awarded to redesign the course to improve student learning engagement by integrating more educational technology and hands-on learning activities in collaboration with industry and community partners.

VII. Department Assessment Timeline

In preparation for the AY 2018-19 ACCE re-accreditation visit, the department is adopting a three-cycle assessment plan to ensure that all ACCE SLOs and GE-E will be assessed at least twice. Table 14 below summarizes previous efforts and upcoming assessment schedule.

Table 14. CM ACCE+GE SLOs Assessment Timeline.

Course	Initial Cycle	Review Cycle 2	Review Cycle 3
CM 001S	12/13/2013	3/10/2017	01-2018 (Fall)
CM 004	3/7/2014	12/2/2016	02-2018 (Fall)
CM 007S	11/8/2013	5/12/2017	03-2018 (Fall)
CM 020	10/21/2013	12/14/2016	04-2018 (Fall)
CM 107/L	*	2/27/2015	02-2018 (Spring)
CM 110	12/20/2012	3/13/2015	03-2017 (Fall)
CM 116	1/25/2013	5/1/2015	04-2017 (Fall)
CM 170	2/14/2014	10/23/2015	04-2018 (Spring)
CM 122	3/11/2013	02-2017 (Fall)	04-2019 (Spring)
CM 127	11/22/2013	01-2017 (Fall)	04-2019 (Spring)
CM 140	3/28/2014	03-2018 (Spring)	04-2019 (Spring)
CM 180A & 180B	4/25/2013	11/6/2015	01-2017 (Fall)
CM 193	**	***	01-2018 (Spring)

*: CM107/L – Advanced Const. Struct. & Lab was under redesign and did not go through the course kaizen in the initial cycle;

** , ***: CM193 – Internship became mandatory at the end of review cycle 2 and has not been assessed through course kaizen.

Specifically, In AY 2017-18, the department will follow the assessment plan and Course Kaizen schedules to assess the following ACCE SLOs via the associated courses as indicated in Table 15:

- SLO 1: Create written communications appropriate to the construction discipline.
- SLO 2: Create oral presentations appropriate to the construction discipline.
- SLO 3: Create a construction project safety plan.

- SLO 4: Create construction project cost estimates.
- SLO 5: Create construction project schedules.
- SLO 9: Apply construction management skills as a member of a multi-disciplinary team.
- SLO 10: Apply electronic-based technology to manage the construction process.
- SLO 12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- SLO 13: Understand construction risk management.
- SLO 14: Understand construction accounting and cost control.
- SLO 15: Understand construction quality assurance and control.
- SLO 16: Understand construction project control processes.
- SLO 17: Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- SLO 19: Understand the basic principles of structural behavior.
- SLO 20: Understand the basic principles of mechanical, electrical and piping systems.

Table 15. Planned course kaizen series in AY 2017-18.

		Planned Assessment Date							
		Fall 2017				Spring 2018			
Course No. & Name		CM127: Construction Soils and Foundation	CM122: Construction Laws	CM110: Estimating and Bidding	CM116: Scheduling and Control	CM193: Internship	CM107/L: Advanced Construction	CM140: Building MEP	CM170: Construction Project Controls
ACCE SLOs Planned to Assess in AY 2017-18	SLO 1		X				X		
	SLO 2				X	X			
	SLO 3	X							
	SLO 4			X					
	SLO 5				X				
	SLO 9						X		
	SLO 10								X
	SLO 12					X			
	SLO 13				X				
	SLO 14								X
	SLO 15	X							
	SLO 16								X
	SLO 17		X						
SLO 19							X		
SLO 20								X	

In addition to the Course Kaizen series, the following assessment-related indirect measures will be revised according to new ACCE accreditation requirements and implemented in AY 2017-18:

- CM Student Internship Report (Fall, formative)
- CM Senior Exit Survey (Fall & Spring, summative)
- CM Alumni Survey (Spring, summative)
- CM Employer Survey (Fall, summative)

VIII. Continuous Improvement – Closing the Loop

In preparation for the next ACCE Accreditation visit in 2019, the CM department has been conducting a comprehensive review of overall curriculum and individual courses since fall 2016. The goal is to coordinate all program learning outcome assessment efforts, including ACCE SLOs and SOAP, with course learning outcomes (CLOs) assessment. The ACCE SLOs and CM CLOs mapping is established and all course instructors are aware of their individual assessment tasks.

Course Kaizens have been reaffirmed to be the major vehicle of program level assessment activity and utilized as an assessment data collection mechanism. The most important findings and changes identified from each ACCE+GE SLO related course will be documented, summarized and tracked using the ‘Kaizen Action Items’ spreadsheet ([link to spreadsheet](#)). A schedule for Course Kaizens has been established to both track all completed SLOs assessment results and plan for future assessment tasks. The Course Kaizens also increase the accountability of assessment at course/instructor level, with comprehensive documentation of assessment process, results, reflection and action plans.

The AY 2016-17 cycle was the first time that such a highly integrated program assessment strategy was implemented. A lot of positive changes have been observed in comparison with previous efforts. However, there was a significant process transition. The AY 2016-17 assessment cycle also revealed a few loopholes that should be addressed in the next AY:

- Some SLOs assessment did not have adequate direct measures or the measures were not well designed so the assessment results might not accurately reflect achieved SLOs;
- A few indirect measures including the surveys to alumni, employers and senior students have to be updated to reflect the new ACCE 20 SLOs requirements;
- Some incentives and creative means need to be created to better engage faculty, especially part-time faculty in the assessment process and enhance data collection efforts to help achieve more comprehensive and valid assessment results.

IX. Appendix

Oral Presentation Grading Rubric

Grading Criteria	Unsatisfactory	Below Expectation	Competent	Proficient	Advanced
	1	2	3	4	5
Physical Appearance	Typical inappropriate dressing for class	Clean dressing but not suitable for presentation	Partially business casual, overall clean dressing	All members business casual or better	All members formal dressing
Presentation Organization	Presenters are not prepared and poor organization of contents.	Presentation is confusing and unclear. No agenda or clear structure	Clear organization, but the contents are not well balanced	Very clear presentation, balanced contents	Professional presentation. Key objectives well highlighted
Delivery	Speakers cannot be heard. Presentation was too short or long. Key points not summarized.	Information is read from a script or directly from the screen. Poor posture and no eye contact.	An annoying number of “Ahs and Uhms”. Pace is too fast or too slow. Key points are touched upon without adequate articulation.	Reasonable pace and style. Some rough spots. Overall easy to follow and contents are complete.	Interaction with the audience and properly paced for understanding. Enjoyable to listen to.
Use of Visual Aids	No aids are used or they are so poorly prepared that they disturbed the presentation.	Aids are difficult to read. Poor images or inappropriate animations.	Aids are marginal. Font is large enough to read. Some distracting backgrounds.	Aids are reasonably good. Graphics and animation usage are appropriate.	Aids presented are professional and polished. Font is large enough. Images are relevant and help address the issue.
Teamwork	No clear role defined and no bonding between group members.	Roles are roughly defined but some members did not fully participate	All group members participate but one or more members dominant	Balanced participation of all group members. Some issues in transition.	Balanced participation. Smooth transition and support between members.

Project-Based Learning Submittal Grading Rubric

Criteria	Unsatisfactory	Below Expectation	Proficient	Advanced
	<60%	60% ~ 69.9%	70% ~ 89.9%	≥90%
Design Concept	Limited or no definition of design problem. No design strategy identified and design evaluation is	Begins to demonstrate the ability to define design problem and identify design strategy. Some	Demonstrates the ability to define design problem and identify design strategy through evaluating relevant	Clearly defines the design problem and identifies design strategy to propose solutions with evaluation of a broad

	superficial. Poor documentation of design process.	evaluation, and limited documentation of design process.	factors. Consistent documentation of design process.	spectrum of factors. Excellent documentation of design development process with artifacts evidence.
Design Completion	Design is incomplete and does not address design intention; model is incomplete and accuracy of model components is low.	Attempts to complete the design with some details; model contains some required components, with average of low level of accuracy.	Complete design with good amount of details; model contains all required components with good level of accuracy.	Thorough design with great details that address the design intention; model contains all required components and view representations with high level of accuracy.
Material Specification	Materials are not defined with little to none efforts on selecting or evaluating materials according to performance or cost factors.	Attempts to discussion material selection process with some understanding of selecting criteria. Lack of summary on final material specifications.	Good discussion on selection process on building materials showing consideration on either performance or cost factors; good summary on final material specifications with justification.	Comprehensive discussion on material selection process utilizing criteria that consider both performance and cost factors; clearly states final decision on all building materials with justification.
Cost Estimate	No efforts made to calculate building material cost. Does not indicate if the project budget will be met.	Attempts to calculate material costs with generic cost information without reference to reliable sources. Total project cost is missing.	Detailed calculation of all building materials cost with realistic cost information from reliable resources. Indicates whether or not the project budget will be met.	Comprehensive calculations of all building materials cost with realistic numbers obtained from vendors and relevant cost database. Clearly summarizes the estimated project cost and whether or not the project budget will be met.
Reflection/ Critical Thinking	Do not understand project intention; no recognition on personal perceptions and no discussion on learning experience or project outcomes.	Demonstrates understanding of project intention but needs some clarification; discussion on learning experience and project outcomes are superficial.	Demonstrates understanding of project contexts; discusses learning experience and project outcomes.	Demonstrates understanding of project contexts, articulates on personal perceptions towards the project, and learning experience and conducts objective self-evaluation of learning outcomes.

Technical Writing Grading Rubric

Criteria	Unsatisfactory	Below Expectation	Competent	Proficient	Advanced
	1	2	3	4	5
Contents - Completion	Paper contains 50% or less of	Paper contains 51%~69% of	Paper contains 70%~79% of	Paper contains 80%~89% of	Paper contains 90%~100% of

	required deliverables	required deliverables	required deliverables	required deliverables	required deliverables
Contents - Accuracy	Little information is provided in the deliverables with poor accuracy	Some information is provided in the deliverables with low accuracy	Solid information is provided in the deliverables with acceptable accuracy	Great amount of information is provided in the deliverables with good accuracy	Excellent coverage of information in the deliverables with impeccable accuracy
Formatting	No obvious efforts in compliance with formatting requirements	Some efforts in compliance with formatting requirements	Acceptable formatting, quite a few mistakes and inconsistencies	Good and consistent formatting, very few mistakes	Excellent formatting, almost impeccable consistency
Organization	No obvious efforts in logical organization	Poor logical organization	Acceptable logical organization	Good logical organization	Excellent logical organization