



Memo

To: Professor Eric Bielefeld, Speech and Hearing Sciences
From: Rosie Quinzon-Bonello, Assistant Dean for Curriculum and Assessment
Date: March 9, 2022
Re: College of Engineering and Knowlton School of Architecture Embedded Literacies Plans

Attached to this memo are eighteen Embedded Literacies plans for Engineering and the Knowlton School of Architecture (KSA). Current major requirements for all programs are expected to meet the Embedded Literacies ELOs, and no curricular revisions relative to the Embedded Literacies are required at this time.

Changes to meet the Embedded Literacies ELOs are expected to be made internally either at the course assignment level, or if necessary, at the course change level through usual department / college / CAA practices.

Whilst not germane to the Embedded Literacies plans submitted, the information below explains the information provided in #5a for Engineering and KSA programs:

Engineering Programs

- GE credit hours are identified as **non-STEM** GE. The total minimum total number of **non-STEM** GE credit hours to be completed for all Engineering programs is twenty-four (exception: twenty-five for Engineering Technology (BS)).
- Credit hours for two college required non-major courses that overlap with GE Foundations are not factored into the total GE credit hours requested in #5a. These two courses are:
 1. MATH 1151 (5) (1154 (4) for Engineering Technology) – Foundations: *Mathematical & Quantitative Reasoning/Data Analysis* -
 2. Physics 1250 (5) – Foundations: Natural Sciences
- Overall minimum credit hours for all Engineering programs remain neutral.

KSA Programs

- GE credit hours to be completed vary. GE course overlaps occur between program required non-major courses and Foundations courses, or between a major core course and a Themes course.

Similar to engineering programs, overlapping GE credit hours that satisfy a Foundations or Themes category are not included in the minimum total GE credit hours requested in #5a.

- Architecture, City and Regional Planning, and Landscape Architecture will submit program changes that align with the new GE structure and reflect the reduction of program hours and / or program improvements. In other words, these program changes will not be proposed specifically to meet to the Embedded Literacies ELOs

Please send all comments or questions to quinzon-bonello.1@osu.edu. Thank you!

**COLLEGE OF ENGINEERING AND KNOWLTON SCHOOL OF ARCHITECTURE
EMBEDDED LITERACIES PLANS**

Engineering Programs

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Knowlton School of Architecture

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1. AEROSPACE ENGINEERING

- 1) Name of program:
Aerospace Engineering
- 2) Name of contact person for discussing the Embedded Literacies in the program:
Program Director: Clifford Whitfield whitfield.22@osu.edu
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in (Can be one course or more for each literacy, depending on the program's needs and structure):
 - a. Advanced Writing
 - AEROENG 4515 and 4517 (Systems Design Capstone 1)
 - AEROENG 4516 and 4518 (Systems Design Capstone 2)
 - AEROENG 4510 (Experimental Projects 1)
 - AEROENG 4511 (Experimental Projects 2)
 - b. Data Analysis
 - AEROENG 2200 (Introduction to AE Labs)
 - AEROENG 4510 (Experimental Projects 1)
 - AEROENG 4511 (Experimental Projects 2)
 - AEROENG 4515 and 4517 (Systems Design Capstone 1)
 - AEROENG 4516 and 4518 (Systems Design Capstone 2)
 - c. Technology
 - AEROENG 4515 and 4517 (Systems Design Capstone 1)
 - AEROENG 4516 and 4518 (Systems Design Capstone 2)

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		AEROENG 2200	AEROENG 4510	AEROENG 4511	AEROENG 4515/4517	AEROENG 4516/4518
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.		X		X	X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.		X		X	X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.	X	X		X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.			X	X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.	X		X	X	X
Data Analysis	1.1A Explain basic concepts of statistics and probability		X	X		
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X	X	X		
	1.3A Recognize the importance of statistical ideas.	X	X	X		
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.				X	X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.				X	X
	1.2 Recognize how technologies emerge and change.				X	X
	1.3 Evaluate the social and ethical implications of technology.				X	X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made):

- a. General Education non-STEM: 24
- b. College requirements: 20
- c. Credits that overlap a and b: 10 (Math 1151 & Physics 1250)
- d. Major Core: 48 (Includes any courses specifically designated to fulfill Embedded Literacies)
- e. Required Non-Major: 27
- f. Required Technical/Directed/Targeted Electives or Career Courses: 9
- g. Free electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

2. AVIATION

- 1) Name of program - Aviation
- 2) Name of contact person for discussing the Embedded Literacies in the program –
Melanie Dickman dickman.49@osu.edu
Shannon Morrison morrison.413@osu.edu
CA Wade wade.230@osu.edu
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program’s needs and structure.
 - a) Advanced Writing
AVIATN 2000 Introduction to the Aviation Industry, 2100 Private Pilot Fundamentals
AVIATN 2200 Aviation Organization Analysis and Writing
AVIATN 4500 Aviation Capstone
 - b) Data Analysis
AVIATN 2300 Aviation Meteorology and Performance
AVIATN 3000 Aviation Management and Marketing
AVIATN 3200 Aviation Regulations
AVIATN 3300 Aviation Human Factors and Safety
AVIATN 4500 Aviation Capstone
 - c) Technology
AVIATN 2100 Private Pilate Fundamentals
AVIATN 3300 Aviation Human Factors and Safety
AVIATN 4500 Aviation Capstone

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		AVIATN 2000	AVIATN 2100	AVIATN 2200	AVIATN 2300	AVIATN 3000	AVIATN 3200	AVIATN 3300	AVIATN 4500
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.	X		X					X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.	X		X					
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.			X					X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.			X					X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.			X					
Data Analysis	1.1A Explain basic concepts of statistics and probability					X			
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.					X		X	
	1.3A Recognize the importance of statistical ideas.				X	X		X	
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.						X	X	X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.	X	X						
	1.2 Recognize how technologies emerge and change.	X	X						
	1.3 Evaluate the social and ethical implications of technology.	X	X						

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)

- a. General Education non-STEM: 24
- b. College requirements: 20
- c. Credits that overlap a and b: 10 (Math 1151 & Physics 1250)
- d. Major Core: 26
- e. Required Non-Major: 0
- f. Required Technical/Directed/Targeted Electives or Career Courses: 54
- g. Free electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

Yes/No/Unsure and would like to discuss –

Unsure but most likely no

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

3. BIOMEDICAL ENGINEERING

1. Name of program:
Biomedical Engineering
2. Name of contact person for discussing the Embedded Literacies in the program:
Tanya Nocera.15@osu.edu
3. List of courses, existing or in development, that will be used to address the Embedded Literacies in (Can be one course or more for each literacy, depending on the program's needs and structure):
 - a. Advanced Writing:
BIOMEDE 3701 Biomedical Engineering Domain lab
BIOMEDE 4901 Biomedical Engineering Capstone Design I
BIOMEDE 4902 Biomedical Engineering Capstone Design II
 - b. Data Analysis:
BIOMEDE 2700 Numerical Simulations in BME
BIOMEDE 3701 Biomedical Engineering Domain Lab
BIOMEDE 3702 Measurements and Instrumentation Lab
 - c. Technology:
BIOMEDE 3702 Measurements and Instrumentation Lab

4) Literacy and indicates the courses through which each is met. Please append a curriculum map for the program that includes the ELOs of each Embedded

		BIOMEDE 2700	BIOMEDE 3701	BIOMEDE 3702	BIOMEDE 4901	BIOMEDE 4902
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.		X		X	
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.		X			
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.				X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.				X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.				X	X
Data Analysis	1.1A Explain basic concepts of statistics and probability		X	X		
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X		X		
	1.3A Recognize the importance of statistical ideas.			X		
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.		X			
	1.1B Successful students develop skills in drawing conclusions and critically evaluating results based on data.		X	X		
	1.2B Apply key methods and tools in qualitative data analysis.		X	X		
	1.4B Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.		X			
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.			X		
	1.2 Recognize how technologies emerge and change.			X		
	1.3 Evaluate the social and ethical implications of technology.			X		

5) Please list the distribution of credits within the program:

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirements: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 35
- e) Required Non-Major: 37
- f) Technical, Directed, Targeted Electives or Career Courses: 15
- g) Free electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

4. CHEMICAL ENGINEERING

1. Name of program:
Chemical and Biomolecular Engineering
2. Name of contact person for discussing the Embedded Literacies in the program:
John Clay (clay.32@osu.edu)
3. List of courses, existing or in development, that will be used to address the Embedded Literacies in (Can be one course or more for each literacy, depending on the program's needs and structure):
 - a) Advanced Writing:
CBE 2200 Process Fundamentals
CBE 3521 Transport Phenomena II
CBE 3730 Unit Operations I
CBE 3731 Unit Operations II
CBE 3732 Unit Operations III
CBE 4764 Chemical and Biomolecular Engineering Process Design and Development
 - b) Data Analysis:
CBE 2200 Process Fundamentals
CBE 2345 Computational Methods for Chemical Engineers,
CBE 3730 Unit Operations I
CBE 3731 Unit Operations II
CBE 3732 Unit Operations III
 - c) Technology:
CBE4755 Chemical Process Safety
CBE4760 Chemical and Biomolecular Engineering Process Design and Product Design Principles I
CBE 4764 Chemical and Biomolecular Engineering Process Design and Development

5) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		CBE 2200	CBE 2345	CBE 3521	CBE 3730	CBE 3731	CBE 3732	CBE 4755	CBE 4760	CBE 4764
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.			X						
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.				X	X	X			
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.								X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.			X						
	2.3 Evaluate social and ethical implications of writing and information literacy practices.	X								
Data Analysis	1.1A Explain basic concepts of statistics and probability				X	X	X			
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X	X		X	X	X			
	1.3A Recognize the importance of statistical ideas.	X			X	X	X			
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.				X	X	X			
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.							X		X
	1.2 Recognize how technologies emerge and change.							X		X
	1.3 Evaluate the social and ethical implications of technology.							X		X

5) Please list the distribution of credits within the program:

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirements: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 43
- e) Required Non-Major: 28
- f) Technical, Directed, Targeted Electives or Career Courses: 12
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

5. CIVIL ENGINEERING

- 1) Name of program:
Civil Engineering

- 2) Name of contact person:
 - a) Dr. John Lenhart.49 (Associate Department Chair; Undergraduate Studies Co-Chair)
 - b) Dr. Anthony Massari.8 (Undergraduate Studies Co-Chair; Departmental Representative to the College of Engineering's College Committee on Academic Affairs)
 - c) Dr. Andrew May.561 (Departmental Representative to the College of Engineering's Committee on Core Curriculum, Teaching, and Learning)

- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in:
 - a) Advanced Writing
CIVILEN 3510 (Civil Engineering Materials)
CIVILEN 3700 (Transportation Engineering and Analysis)
CIVILEN 4001 (Civil Engineering Capstone I)
CIVILEN 4002 (Civil Engineering Capstone II)
ENVENG 3200 (Fundamentals of Environmental Engineering)

 - b) Data Analysis
CIVILEN 2050 (Probabilistic Applications and Data Interpretation in Civil and Environmental Engineering)
CIVILEN 3510 (Civil Engineering Materials)
CIVILEN 3540 & 3541 (Geotechnical Engineering & Geotechnical Engineering Lab)

 - c) Technology
CIVILEN 2090 (Professional Aspects of Civil and Environmental Engineering)
CIVILEN 2810 (Construction Engineering and Management)
CIVILEN 3080 (Economic Evaluation and Optimization in Civil and Environmental Engineering)
CIVILEN 3540 (Geotechnical Engineering)
CIVILEN 4001 (Civil Engineering Capstone I)
CIVILEN 4002 (Civil Engineering Capstone II)

Note that this list represents potential options for assessment for each of the embedded literacies.

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		CIVILEN 2050	CIVILEN 2090	CIVILEN 2810	CIVILEN 3080	CIVILEN 3510	CIVILEN 3540/1	CIVILEN 3700	CIVILEN 4001	CIVILEN 4002	ENVENG 3200
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.					X	X	X	X	X	X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.					X	X	X	X	X	X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.					X	X	X	X	X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.					X	X	X	X	X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.		X		X				X	X	
Data Analysis	1.1A Explain basic concepts of statistics and probability	X				X	X				
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X				X	X				
	1.3A Recognize the importance of statistical ideas.	X				X	X				
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.	X				X	X				
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.			X	X			X			
	1.2 Recognize how technologies emerge and change.		X		X				X	X	
	1.3 Evaluate the social and ethical implications of technology.		X		X				X	X	

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made):

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Major Core: 46
- d) Required Non-Major: 26
- e) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- f) Technical, Directed, Targeted Electives or Career Courses: 15
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

6. COMPUTER SCIENCE AND ENGINEERING

1. Name of program:
Computer Science and Engineering
2. Name of contact person:
Paul Sivilotti sivilotti.1@osu.edu
3. List of courses, existing or in development, that will be used to address the Embedded Literacies in:
 - a. Advanced Writing
CSE 2501 Social, Ethical, and Professional Issues in Computing
PHILOS 1338 Ethics in the Professions: Introduction to Computing Ethics and Effective Presentation
 - b. Data Analysis
CSE 2501 Social, Ethical, and Professional Issues in Computing
STATS 3470 Introduction to Probability and Statistics for Engineers
PHILOS 1338 Ethics in the Professions: Introduction to Computing Ethics and Effective Presentation
 - c. Technology
PHILOS 1338 Ethics in the Professions: Introduction to Computing Ethics and Effective Presentation
CSE 2501 Social, Ethical, and Professional Issues in Computing

4. Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		CSE 2501	PHILOS 1338	STATS 3470
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.	X	X	
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.	X	X	
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.	X	X	
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.	X	X	
	2.3 Evaluate social and ethical implications of writing and information literacy practices.	X	X	
Data Analysis	1.1A Explain basic concepts of statistics and probability			X
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.			X
	1.3A Recognize the importance of statistical ideas.			X
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.			X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.	X	X	
	1.2 Recognize how technologies emerge and change.	X	X	
	1.3 Evaluate the social and ethical implications of technology.	X	X	

5. Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made):

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Major Core: 42
- d) Required Non-Major: 23
- e) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- f) Technical, Directed, Targeted Electives or Career Courses: 17
- g) Free Electives: 0

6. Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7. If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

7. ELECTRICAL AND COMPUTER ENGINEERING

1. Name of program:
Electrical and Computer Engineering
2. Name of contact person for discussing the Embedded Literacies in the program:
Steven Bibyk.1
3. List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.
 - a) Data Analysis:
 - ECE 2050 Discrete Time Signals and Systems
 - ECE 2060 Digital Logic
 - ECE 3020 Intro to Electronics
 - ECE 3027 Electronics Lab
 - ECE 3905 Capstone Design I
 - ECE 4905 Capstone Design II
 - STATS 3470 Intro to Prob. and Stats for Engineers
 - b) Advanced Writing:
 - ECE 3090 Technical Writing
 - ECE 3905 Capstone Design I
 - ECE 4905 Capstone Design II
 - PHIL 1332 Intro to Engineering Ethics
 - c) Technology:
 - ECE 2050 Discrete Time Signals and Systems
 - ECE 3020 Intro to Electronics
 - ECE 3040 Energy and Power Systems
 - ECE 3561 Advanced Digital Design
 - ECE 3905 Capstone Design I
 - ECE 4905 Capstone Design II

4. Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		ECE 2050	ECE 2060	ECE 3020	ECE 3027	ECE 3040	ECE 3090	ECE 3561	ECE 3905	ECE 4905	STATS 3470	PHIL 1332
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.			X			X		X	X		X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.			X			X		X	X		X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.						X		X	X		X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.			X			X		X	X		X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.						X		X	X		X
Data Analysis	1.1A Explain basic concepts of statistics and probability	X	X		X						X	
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X	X		X						X	
	1.3A Recognize the importance of statistical ideas.	X		X					X	X		
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.								X	X		
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.					X		X	X	X		
	1.2 Recognize how technologies emerge and change.	X		X					X	X		
	1.3 Evaluate the social and ethical implications of technology.								X	X		X

5. Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)
- a) General Education - GE non-STEM requirements: 24
 - b) College Degree Requirement: 20
 - c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
 - d) Major Core:
 - 45 Computer Engineering Specialization
 - 24 Electrical Engineering Specialization
 - e) Required Non-Major:
 - 23 Computer Engineering Specialization
 - 23 Electrical Engineering Specialization
 - f) Technical, Directed, Targeted Electives or Career Courses:
 - 16 Computer Engineering Specialization
 - 27 Electrical Engineering Specialization
 - g) Free electives: 0
6. Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss.

No

7. If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

8. ENGINEERING PHYSICS

- 1) Name of program:
Engineering Physics
- 2) Name of contact person for discussing the Embedded Literacies in the program:
Lindsey Thaler (thaler.21@osu.edu)
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.
 - a) Advanced Writing:
PHYSICS 5800 Engineering Physics Design I
PHYSICS 5801 Engineering Physics Design II
 - b) Data Analysis:
PHYSICS 3700 Experimental Physics Instrumentation and Data Analysis Lab
 - c) Technology:
PHYSICS 5800 Engineering Physics Design I
PHYSICS 5801 Engineering Physics Design II

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		PHYSICS 3700	PHYSICS 5800	PHYSICS 5801
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.		X	
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.		X	
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.	X		
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.		X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.		X	
Data Analysis	1.1A Explain basic concepts of statistics and probability	X		
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X		
	1.3A Recognize the importance of statistical ideas.	X		
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.	X	X	X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.		X	X
	1.2 Recognize how technologies emerge and change.		X	X
	1.3 Evaluate the social and ethical implications of technology.		X	X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 29
- e) Required Non-Major: 14
- f) Technical, Directed, Targeted Electives or Career Courses: 29
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss:

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

9. ENGINEERING TECHNOLOGY (BS)

- 1) Name of program:
Bachelor of Science in Engineering Technology
- 2) Name of contact person for discussing the Embedded Literacies in the program:
Aimee Ulstad (ulstad.2@osu.edu)
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure):
 - a) Advanced Writing:
ENGRTEC 4900 Capstone
 - b) Data Analysis:
STATS 3440 Statistics with Applications in Quality
ENGRTEC 4500 Robotics and Automation
 - c) Technology:
ENGRTEC 1200 Introduction to Engineering Technology
ENGRTEC 4900 Capstone

- 4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		ENGRTEC 1200	ENGRTEC 4500	ENGRTEC 4900	STATS 3440
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.			X	
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.			X	
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.			X	
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.			X	
	2.3 Evaluate social and ethical implications of writing and information literacy practices.			X	
Data Analysis	1.1A Explain basic concepts of statistics and probability				X
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.				X
	1.3A Recognize the importance of statistical ideas.				X
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.		X		X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.	X			
	1.2 Recognize how technologies emerge and change.			X	
	1.3 Evaluate the social and ethical implications of technology.			X	

- 5) Please list the distribution of credits within the program:
- a) General Education - GE non-STEM requirements: 25
 - b) College Degree Requirement: 18
 - c) Credits that overlap a) and b): 9 (Math 1154 & Physics 1250)
 - d) Major Core: 50.5
 - e) Required Non-Major: 27
 - f) Technical, Directed, Targeted Electives or Career Courses: 0
 - g) Free Electives: 0
- 6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

- 7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

10. ENVIRONMENTAL ENGINEERING

- 1) Name of program:
Environmental Engineering
- 2) Name of contact persons:
Dr. John Lenhart.49 (Associate Department Chair; Undergraduate Studies Co-Chair)
Dr. Anthony Massari.8 (Undergraduate Studies Co-Chair; Departmental Representative to the College of Engineering's College Committee on Academic Affairs)
Dr. Andrew May.561 (Departmental Representative to the College of Engineering's Committee on Core Curriculum, Teaching, and Learning)
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in:
 - a) Advanced Writing
ENVENG 2100 (Environmental Engineering Analytical Methods)
ENVENG 3200 (Fundamentals of Environmental Engineering)
ENVENG 4090 (Environmental Engineering Capstone Design)
 - b) Data Analysis
CIVILEN 2050 (Probabilistic Applications and Data Interpretation in Civil and Environmental Engineering)
ENVENG 2100
ENVENG 4200 (Environmental Engineering Unit Operations Lab)
 - c) Technology
CIVILEN 2090 (Professional Aspects of Civil and Environmental Engineering)
CIVILEN 3080 (Economic Evaluation and Optimization in Civil and Environmental Engineering)
ENVENG 3200
ENVENG 3210 (Environmental Engineering Unit Operations)
ENVENG 4090
ENVENG 5110 (Environmental Engineering Bioprocesses)
ENVENG 5170 (Sustainability and Pollution Prevention Practices)

Note that this list represents potential options for assessment for each of the embedded literacies

- 4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		CIVILEN 2050	CIVILEN 2090	CIVILEN 3080	ENVENG 3200	ENVENG 3210	ENVENG 4090	ENVENG 4200	ENVENG 5110	ENVENG 5170
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.						X	X		
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.						X	X		
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.						X	X		
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.						X	X		
	2.3 Evaluate social and ethical implications of writing and information literacy practices.		X	X	X		X			X
Data Analysis	1.1A Explain basic concepts of statistics and probability	X						X		
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X						X		
	1.3A Recognize the importance of statistical ideas.	X						X		
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.	X						X		
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.			X		X	X	X	X	
	1.2 Recognize how technologies emerge and change.		X	X	X		X			X
	1.3 Evaluate the social and ethical implications of technology.		X	X	X		X			X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made):

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 42
- e) Required Non-Major: 35
- f) Technical, Directed, Targeted Electives or Career Courses: 12
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

11. FOOD, AGRICULTURAL AND BIOLOGICAL ENGINEERING

1. Name of program:
Food, Agricultural and Biological Engineering
2. Name of contact persons for discussing the Embedded Literacies in the program:
Qian (Victoria) Chen (.1399); Chair of Academic Affairs
Kelli Whitcomb (.66); FABE Academic Advisor
3. List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure):
 - a. Advanced Writing
FABENG 4900 (Capstone Design 1)
FABENG 4910 (Capstone Design 2)
 - b. Data Analysis
FABENG 3150 (System Dynamics and Electricity)
FABENG 5160 (Electronics and Instrumentation)
FABENG 4900 (Capstone Design 1)
FABENG 4910 (Capstone Design 2)
 - c. Technology
FABENG 3120 (Thermodynamics in FABE)
FABENG 3140 (Professional Development in FABE)
FABENG 4900 (Capstone Design 1)
FABENG 4910 (Capstone Design 2)

4. Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		FABENG 3120	FABENG 3140	FABENG 5160	FABENG 4900/4910
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.				X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.				X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.				X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.				X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.		X		X
Data Analysis	1.1A Explain basic concepts of statistics and probability			X	
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.			X	
	1.3A Recognize the importance of statistical ideas.			X	
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.	X			X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.	X			
	1.2 Recognize how technologies emerge and change.				X
	1.3 Evaluate the social and ethical implications of technology.	X	X		

5. Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)
- a. General Education - GE non-STEM requirements: 24
 - b. College Degree Requirement: 20
 - c. Credits that overlap a) and b) 10 (Math 1151 & Physics 1250)
 - d. Major Core:
 - 45 - Agricultural Engineering Specialization
 - 34 - Biological Engineering Specialization
 - 43 - Ecological Engineering Specialization
 - 38 - Food Engineering Specialization
 - e. Required Non-Major:
 - 25 - Agricultural Engineering Specialization
 - 39 - Biological Engineering Specialization
 - 33 - Ecological Engineering Specialization
 - 41 - Food Engineering Specialization
 - f. Technical, Directed, Targeted Electives or Career Courses:
 - 18 - Agricultural Engineering Specialization
 - 15 - Biological Engineering Specialization
 - 12 - Ecological Engineering Specialization
 - 9 - Food Engineering Specialization
 - g. Free Electives: 0

6. Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7. If yes, please append the program's current advising sheet

N/A

12. INDUSTRIAL SYSTEMS ENGINEERING

- 1) Name of program:
Industrial Systems Engineering
- 2) Name of contact person for discussing the Embedded Literacies in the program:
Aimee Ulstad (ulstad.2@osu.edu)
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure):
 - a) Advanced Writing:
ISE 3210 Linear Programming
ISE 4910 Capstone
 - b) Data Analysis:
ISE4120 Quality & Reliability Engineering
ISE 4900 Capstone
 - c) Technology:
ISE 3400 Facility Layout & Integration
ISE3600 Ergonomics

- 4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		ISE 3210	ISE 3400	ISE 3600	ISE 4120	ISE 4900
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.	X	X			
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.	X	X			
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.	X	X			
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.	X	X			
	2.3 Evaluate social and ethical implications of writing and information literacy practices.	X	X			X
Data Analysis	1.1A Explain basic concepts of statistics and probability				X	X
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.				X	X
	1.3A Recognize the importance of statistical ideas.				X	X
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.				X	X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.		X	X		X
	1.2 Recognize how technologies emerge and change.		X			X
	1.3 Evaluate the social and ethical implications of technology.		X			X

5) Please list the distribution of credits within the program:

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 37
- e) Required Non-Major: 31
- f) Technical, Directed, Targeted Electives or Career Courses: 15
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes?

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

13. MATERIALS SCIENCE AND ENGINEERING

- 1) Name of program:
Materials Science

- 2) Name of contact person for discussing the Embedded Literacies in the program:
Mike Sumption, MSE undergrad studies chair, sumption.3@osu.edu

- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.
 - a) Advanced Writing
MATSCEN 2331 (Structure and Characterization Lab)
MATSCEN 3331 (Materials Lab I)
MATSCEN 4381 (Capstone 1)
MATSCEN 4382 (Capstone 2)

 - b) Data Analysis
MATSCEN 2321 (Modelling and Simulation I)
MATSEN 3321 (Modelling and Simulation II)

 - c) Technology
MATCSEN 4181 (Materials Selection)
MATSCEN 4381 (Capstone 1)
MATSCEN 4382 (Capstone 2)

- 4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		MATSCEN 2321	MATSCEN 2331	MATSCEN 3331	MATSCEN 3321	MATSCEN 4181	MATSCEN 4381	MATSCEN 4382
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.						X	X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.		X	X			X	X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.		X	X			X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.		X	X			X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.						X	X
Data Analysis	1.1A Explain basic concepts of statistics and probability	X			X			
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.	X			X			
	1.3A Recognize the importance of statistical ideas.	X			X			
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.				X			
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.					X	X	X
	1.2 Recognize how technologies emerge and change.					X	X	X
	1.3 Evaluate the social and ethical implications of technology.					X	X	X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 56
- e) Required Non-Major: 21
- f) Technical, Directed, Targeted Electives or Career Courses: 6
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

14. MECHANICAL ENGINEERING

- 1) Name of program:
Mechanical Engineering
- 2) Name of contact person for discussing the Embedded Literacies in the program:
Rebecca Dupaix, Associate Chair for Undergraduate Programs dupaix.1@osu.edu
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in (Can be one course or more for each literacy, depending on the program's needs and structure):
 - a) Advanced Writing
MECHENG 490X.01 (Capstone 1)
MECHENG 490X.02 (Capstone 2)
 - b) Data Analysis
MECHENG 3870 (Introduction to Measurements and Data Analysis in Mechanical Engineering)
MECHENG 4870 (Multidisciplinary Mechanical Engineering Lab)
 - c) Technology
MECHENG 2900 (Introduction to Design in Mechanical Engineering)
MECHENG 3501 (Introduction to Thermodynamics)
MECHENG 490X.01 (Capstone 1)
MECHENG 490X.02 (Capstone 2)

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		MECHENG 2900	MECHENG 3501	MECHENG 3671	MECHENG 3870	MECHENG 4870	MECHENG 490X.01	MECHENG 490X.02
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.						X	X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.				X		X	X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.						X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.				X		X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.						X	X
Data Analysis	1.1A Explain basic concepts of statistics and probability				X	X		
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.				X	X		
	1.3A Recognize the importance of statistical ideas.				X	X		
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.				X	X		
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.			X			X	X
	1.2 Recognize how technologies emerge and change.	X	X				X	X
	1.3 Evaluate the social and ethical implications of technology.	X	X				X	X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made):

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 46
- e) Required Non-Major: 28
- f) Technical, Directed, Targeted Electives or Career Courses: 12
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

15. WELDING ENGINEERING

- 1) Name of program:
Welding Engineering
- 2) Name of contact person for discussing the Embedded Literacies in the program
Dave Farson, Welding Engineering UG Chair, farson.4@osu.edu
- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.
 - a) Advanced Writing
MATSCEN 3333 Materials Science and Engineering Laboratory for Welding Engineering
 - b) Data Analysis
MATSCEN 3333 Materials Science and Engineering Laboratory for Welding Engineering
WELD 4001 Physical Principles in Welding Processes I
WELD 4101 Welding Metallurgy I
WELD 4301 Nondestructive Evaluation
WELD 4901 Capstone Welding Design I
WELD 4902 Capstone Welding Design II
 - c) Technology
WELD 2001 Introduction to Welding Engineering
WELD 4901 Capstone Welding Design I
WELD 4902 Capstone Welding Design II

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		MATSCEN 3333	WELD 2001	WELD 4001	WELD 4101	WELD 4301	WELD 4901/2
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.	X					
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.	X					X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.	X					X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.						X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.	X					X
Data Analysis	1.1A Explain basic concepts of statistics and probability					X	
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.			X	X	X	
	1.3A Recognize the importance of statistical ideas.					X	
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.		X				X
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.	X					X
	1.2 Recognize how technologies emerge and change.						X
	1.3 Evaluate the social and ethical implications of technology.	X					X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)

- a) General Education - GE non-STEM requirements: 24
- b) College Degree Requirement: 20
- c) Credits that overlap a) and b): 10 (Math 1151 & Physics 1250)
- d) Major Core: 36
- e) Required Non-Major: 42
- f) Technical, Directed, Targeted Electives or Career Courses: 7
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

**16. KNOWLTON SCHOOL OF ARCHITECTURE
ARCHITECTURE**

1) Name of program:
Architecture

2) Name of contact person for discussing the Embedded Literacies in the program

Judith Dunham-Borst, section program coordinator dunham-borst.1@osu.edu
Undergraduate Chair: Karen Lewis lewis.1512@osu.edu
Section Head: Todd Gannon gannon.14@osu.edu

3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.

a. Advanced Writing

ARCH 5110 History of Architecture I and/or ARCH 5120 History of Architecture II
ARCH 5210 Forms of Architectural Theory

b. Data Analysis

ARCH 4410 Architectural Design V
ARCH 5110 History of Architecture I and/or ARCH 5120 History of Architecture II
ARCH 5610 Architectural Representation I and/or ARCH 5620 Architectural Representation II

c. Technology

ARCH 5610 Architectural Representation I and/or ARCH 5620 Architectural Representation II
ARCH 5710 Introduction to Architectural Structures I

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		ARCH 4410	ARCH 5110 and/or 5120	ARCH 5210	ARCH 5610 and/or 5620	ARCH 5710
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.		X	X		
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.		X	X		
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.		X	X		
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.		X	X		
	2.3 Evaluate social and ethical implications of writing and information literacy practices.		X	X		
Data Analysis	1.1 A Explain basic concepts of statistics and probability	X	X		X	
	1.2 B Apply methods needed to analyze and critically evaluate statistical arguments.	X	X		X	
	1.3 B Recognize the importance of statistical ideas.	X	X		X	
	1.4 B evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects	X	X		X	
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.				X	X
	1.2 Recognize how technologies emerge and change.				X	X
	1.3 Evaluate the social and ethical implications of technology.				X	X

5) Please list the distribution of credits within the program (if curricular changes are or will be pending for the Embedded Literacies, these numbers should reflect the program after the changes are made)

- a) General Education Requirement: 20
- b) College / Degree Requirement: 1
- c) Major Core: 73
- d) Required Non-Major: 12
- e) Credits that overlap:
 - a) and c) : 4
 - KNOW 2310 Introduction to Design - Theme: Lived Environments
 - a) and d) : 9
 - MATH 1148 College Algebra - Foundations: Mathematical & Quantitative Reasoning / Data Analysis
 - PHYSICS 1200 Mechanics, Kinematics, Fluids, Waves – Foundations: Natural Science
- f) Technical, Directed, Targeted Electives or Career Courses: 15
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

**17. KNOWLTON SCHOOL OF ARCHITECTURE
CITY AND REGIONAL PLANNING**

- 1) Name of program:
City and Regional Planning

- 2) Name of contact person for discussing the Embedded Literacies in the program
Bernadette Hanlon hanlon.42@osu.edu

- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.)
 - a) Advanced Writing
 - CRPLAN 2100 Reading the City through History and Law
 - CRPLAN 2110 Creating Innovative Cities and Regions
 - CRPLAN 2600 Designing Communication for Planning
 - CRPLAN 3000 Planning Resilient Environments
 - CRPLAN 3100 Analyzing the City
 - CRPLAN 3150 Digital Design and Analysis for Planners
 - CRPLAN 3200 Place Making
 - CRPLAN 3300 Planning for and with People
 - CRPLAN 4900 Plan Making
 - CRPLAN 4910 Realizing the Plan
 - CRPLAN 4950 Professional Planning Skills Development

 - b) Data Analysis
 - CRPLAN 3100 Analyzing the City
 - CRPLAN 3150 Digital Design and Analysis for Planners
 - CRPLAN 3200 Place Making
 - CRPLAN 3300 Planning for and with People
 - CRPLAN 4900 Plan Making
 - CRPLAN 4910 Realizing the Plan

 - c) Technology
 - CRPLAN 2600 Designing Communication for Planning
 - CRPLAN 3150 Digital Design and Analysis for Planners

- 4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		CRPLAN 2100	CRPLAN 2110	CRPLAN 2600	CRPLAN 3000	CRPLAN 3100	CRPLAN 3150	CRPLAN 3200	CRPLAN 3300	CRPLAN 4900	CRPLAN 4910	CRPLAN 4905
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.	X	X	X	X	X	X	X	X	X	X	X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.	X	X	X	X	X	X	X	X	X	X	X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.	X	X	X	X	X	X	X	X	X	X	X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.	X	X	X	X	X	X	X	X	X	X	X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.			X	X	X	X	X	X	X	X	X
Data Analysis	1.1A Explain basic concepts of statistics and probability					X	X					
	1.2A Apply methods needed to analyze and critically evaluate statistical arguments.					X	X					
	1.3A Recognize the importance of statistical ideas.					X	X					
	1.4A Evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects.					X	X					
	1.1B explain the utility of different approaches to qualitative data analysis							X	X	X	X	
	1.2B apply key methods and tools in qualitative data analysis							X	X	X	X	
	1.3.B interpret the results of qualitative data analysis to answer research questions							X	X	X	X	
	1.4B evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects							X	X	X	X	
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.			X			X					
	1.2 Recognize how technologies emerge and change.			X			X					
	1.3 Evaluate the social and ethical implications of technology.			X			X					

5) Please list the distribution of credits within the program.

- a) General Education: 26
- b) College / School / Degree Requirement: 1
- c) Major Core: 46
- d) Required Non-Major: 9
- e) Credits that overlap a) and d): 6
 - ECON 2001.01 Principles of Microeconomics - Foundations: Social and Behavioral Sciences
 - CSE 1111 Introduction to Computer-Assisted Problem Solving - Foundations: Mathematical & Quantitative Reasoning / Data Analysis
- f) Technical, Directed, Targeted Electives or Career Courses: 39
- g) Free Electives: 0

6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A

**18. KNOWLTON SCHOOL OF ARCHITECTURE
LANDSCAPE ARCHITECTURE**

- 1) Name of program:
Landscape Architecture

- 2) Name of contact person for discussing the Embedded Literacies in the program:
Chair, Undergraduate Studies in Landscape Architecture: Paula Meijerink meijerink.2@osu.edu

- 3) List of courses, existing or in development, that will be used to address the Embedded Literacies in
(Can be one course or more for each literacy, depending on the program's needs and structure.)
 - a. Advanced Writing
LARCH 2600 Outlines of Landscape Architecture: Visual Literacy in the Built Environment
LARCH 2367 Making and Meaning of the American Landscape
LARCH 5610 History / Theory I

 - b. Data Analysis
LARCH 2310 Seeing and Making
LARCH 2410 Landscape Architecture Media I
LARCH 2420 Ecology / Technology I

 - c. Technology
LARCH 2310 Seeing and Making
LARCH 2410 Landscape Architecture Media I
LARCH 2420 Ecology / Technology I
LARCH 2367 Making and Meaning of the American Landscape
LARCH 5610 History / Theory I

4) Please append a curriculum map for the program that includes the ELOs of each Embedded Literacy and indicates the courses through which each is met.

		LARCH 2310	LARCH 2367	LARCH 2410	LARCH 2420	LARCH 2600	LARCH 5610
Advanced Writing	1.1 Investigate and integrate knowledge of the subject, context, and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.		X			X	X
	1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.		X			X	X
	2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.		X				X
	2.2 Develop scholarly, creative, or professional products that are meaningful to them and their audience.		X				X
	2.3 Evaluate social and ethical implications of writing and information literacy practices.		X				X
Data Analysis	1.1 B Explain the utility of different approaches to qualitative data analysis.	X		X	X		
	1.2 B Apply methods needed to analyze and critically evaluate statistical arguments.	X		X	X		
	1.3 B Recognize the importance of statistical ideas.	X		X	X		
	1.4 B evaluate the social and ethical implications of data collection and analysis, especially in relation to human subjects	X		X	X		
Technology	1.1 Critically describe the relationships between technology and society in historical and cultural contexts.		X	X	X	X	X
	1.2 Recognize how technologies emerge and change.		X	X	X	X	X
	1.3 Evaluate the social and ethical implications of technology.		X	X	X	X	X

- 5) Please list the distribution of credits within the program.
- a) General Education: 23
 - b) College / School / Degree Requirement:
 - c) Major Core:
 - d) Required Non-Major: 4
 - e) Credits that overlap a) and d): 4
 - ENR 3800 (2) and 3801 (2) Principles and Tools of Ecosystem Restoration; title for 3801 TBD – Foundations: Natural Science
 - KNOW 2310 (4) Seeing and Making - Theme: Lived Environments
 - f) Technical, Directed, Targeted Electives or Career Courses:
 - g) Free Electives: 0

- 6) Will adhering to this plan for the Embedded Literacies require the program to undergo curriculum changes? Yes/No/Unsure and would like to discuss

No

- 7) If yes, please append the program's current advising sheet and a proposed revised advising sheet for CAA to review.

N/A