

# Program-Level Assessment Plan

Program: BS Aerospace Engineering	Degree Level (e.g., UG or GR certificate, UG major, master's program, doctoral program): UG major
Department: Aerospace & Mechanical Eng	College/School: School of Science and Engineering
Date (Month/Year): 11/23	Primary Assessment Contact: Ray LeBeau

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	Student Learning Outcomes	Curriculum Mapping	Assessment Methods	
			Artifacts of Student Learning (What)	Evaluation Process (How)
	<p>What do the program faculty expect all students to know or be able to do as a result of completing this program?</p> <p>Note: These should be measurable and manageable in number (typically 4-6 are sufficient).</p>	<p>In which courses will faculty intentionally work to foster some level of student development toward achievement of the outcome? Please clarify the level at which student development is expected in each course (e.g., introduced, developed, reinforced, achieved, etc.).</p>	<p>1. What artifacts of student learning will be used to determine if students have achieved this outcome?</p> <p>2. In which courses will these artifacts be collected?</p>	<p>1. What process will be used to evaluate the artifacts, and by whom?</p> <p>2. What tools(s) (e.g., a rubric) will be used in the process?</p> <p>Note: Please include any rubrics as part of the submitted plan documents.</p>
1	<p>Students will be able to identify, formulate, and solve complex engineering problems in the aerospace domain by applying principles of engineering, science, and mathematics.</p>	<p>Introduced: MENG 2100 Statics, MENG 2150 Dynamics, MENG 2300 Thermodynamics</p> <p>Developed: MENG 3100 Mechanics of Solids, MENG 3200 Fluid Dynamics, AENG 3000 Performance</p> <p>Reinforced: MENG 3110 Linear Vibrations, MENG 3510 Material Science, AENG 3150 Astrodynamics, AENG 3230 Compressible Flow, AENG 3240 Aerodynamics &amp; Boundary Flow, AENG 3050 Design of Space Missions</p> <p>Achieved: AENG 4110 Flight Vehicle Structures, AENG 4210 Propulsion, AENG 4400 Stability and Control</p>	<p>MENG 2150 Dynamics – Exam question</p> <p>MENG 3200 Fluid Dynamics – Exam question</p> <p>AENG 3150 Astrodynamics</p> <p>AENG 4400 Stability and Control – Exam question</p>	<p>Artifacts are initially evaluated by the instructor of the course based on rubrics. The faculty member will report student performance and assessment observations on an assessment form. Examples of the assessment form and rubrics are provided.</p> <p>The faculty will collectively then review the assessment form, discuss the outcomes, and develop plans of action.</p>

2	<p>Students will be able to apply engineering methods to design aerospace systems that meet specified mission needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.</p>	<p>Introduction: SE 1700 Engineering Fundamentals</p> <p>Developing: AENG 2020 Introduction to Aerospace Engineering, AENG 3000 Performance</p> <p>Reinforced: AENG 3050 Design of Space Missions</p> <p>Achieved: AENG 4004 Flight Vehicle Analysis and Design I, AENG 4014 Flight Vehicle Analysis and Design II</p>	<p>AENG 2020 Introduction to Aerospace Engineering – glider/rocket projects</p> <p>AENG 3050 Design of Space Missions</p> <p>AENG 4004 Flight Vehicle Analysis and Design I – professional panel review of end-of-semester presentation</p> <p>AENG 4014 Flight Vehicle Analysis and Design II – professional panel review of end-of-semester presentation, final design report, broader impact assignment</p>	<p>In addition to the approach of Outcome 1, a panel of professionals will evaluate end-of-semester presentations in AENG 4004 and AENG 4014.</p>
3	<p>Students will be able to communicate effectively with a range of audiences.</p>	<p>Introduction: SE 1700 Engineering Fundamentals</p> <p>Developing: AENG 2020 Introduction to Aerospace Engineering</p> <p>Reinforced: MENG 3111 Mechanics Lab, MENG 3201 Fluids Lab</p> <p>Achieved: AENG 4004 Flight Vehicle Analysis and Design I, AENG 4014 Flight Vehicle Analysis and Design II, AENG 4111 Aerospace Lab</p>	<p>AENG 2020 Introduction to Aerospace Engineering – glider/rocket project report</p> <p>MENG 3111 Mechanics Lab – formal lab report</p> <p>MENG 3201 Fluids Lab – formal lab report</p> <p>AENG 4014 Flight Vehicle Analysis and Design II – professional panel review of end-of-semester presentation, AIAA conference paper, project poster</p>	<p>In addition to the approach of Outcome 1, a panel of professionals will evaluate end-of-semester presentations in AENG 4014.</p>
4	<p>Students will be able to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal</p>	<p>Introduced: SE 1700 Engineering Fundamentals</p> <p>Developing: AENG 2020 Introduction to Aerospace Engineering</p> <p>Reinforced: AENG 3000 Performance, AENG 3050 Design of Space Missions</p> <p>Achieved: AENG 4004 Flight Vehicle Analysis and Design I, AENG 4014 Flight Vehicle Analysis Design II</p>	<p>SE 1700 Engineering Fundamentals – Play Pump assignment</p> <p>2020 Introduction to Aerospace Engineering – Ethics Assignment</p> <p>AENG 3050 Design of Space Missions</p> <p>AENG 4004 Flight Vehicle Analysis and Design I – professional panel review of end-of-semester presentation</p> <p>AENG 4014 Flight Vehicle Analysis</p>	<p>In addition to the approach of Outcome 1, a panel of professionals will evaluate end-of-semester presentations in AENG 4004 and AENG 4014.</p>

	contexts.		Design II - professional panel review of end-of-semester presentation	
5	Students will be able to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	<p>Introduction: SE 1700 Engineering Fundamentals</p> <p>Developing: AENG 2020 Introduction to Aerospace Engineering</p> <p>Reinforcing: MENG 3101 Solid Mechanics Lab, MENG 3111 Mechanics Lab, MENG 3201 Fluids Lab</p> <p>Achieved: AENG 4004 Flight Vehicle Analysis and Design I, AENG 4014 Flight Vehicle Analysis Design II, AENG 4111 Aerospace Lab</p>	<p>SE 1700 Engineering Fundamentals</p> <p>MENG 3101 Solid Mechanics Lab – Team survey</p> <p>MENG 3111 Mechanics Lab – Team survey</p> <p>AENG 4004 Flight Vehicle Analysis and Design I – professional panel review of end-of-semester presentation</p> <p>AENG 4014 Flight Vehicle Analysis and Design II – professional panel review of end-of-semester presentation, evaluation of team activities</p>	In addition to the approach of Outcome 1, a panel of professionals will evaluate end-of-semester presentations in AENG 4004 and AENG 4014.
6	Students will be able to develop and conduct appropriate experimentation in the aerospace domain, analyze and interpret data, and use engineering judgment to draw conclusions.	<p>Introduction/Developing: MENG 3101 Solid Mechanics Lab, MENG 3111 Mechanics Lab, MENG 3201 Fluids Lab</p> <p>Reinforced/Achieved: AENG 4111 Aerospace Lab</p>	<p>MENG 3101 Solid Mechanics Lab – formal lab report</p> <p>MENG 3111 Mechanics Lab – formal lab report</p> <p>MENG 3201 Fluids Lab – formal lab report</p> <p>AENG 4111 Aerospace Lab – lab report</p>	Same approach as Outcome 1
7	Students will be able to acquire and apply new knowledge applicable to an aerospace engineering career using appropriate learning strategies.	<p>Introduction: SE 1700 Engineering Fundamentals</p> <p>Developing: AENG 3150 Astrodynamics</p> <p>Reinforced/Achieved: AENG 4004 Flight Vehicle Analysis and Design I, AENG 4014 Flight Vehicle Analysis and Design II</p>	<p>SE 1700 Engineering Fundamentals - bibliography</p> <p>AENG 3150 Astrodynamics – case study</p> <p>AENG 4004 Flight Vehicle Analysis and Design I – professional panel review</p> <p>AENG 4014 Flight Vehicle Analysis and Design II – professional panel review</p>	In addition to the approach of Outcome 1, a panel of professionals will evaluate end-of-semester presentations in AENG 4004 and AENG 4014.

### Use of Assessment Data

1. How and when will analyzed data be used by program faculty to make changes in pedagogy, curriculum design, and/or assessment practices?  
The appropriate outcomes will be assessed each fall based on prior academic year(s) data in meetings of the full department. The outcomes of these meetings will include plans for changes to classes, curriculum, and assessment. The overall assessment plan will be reviewed every two years.
2. How and when will the program faculty evaluate the impact of assessment-informed changes made in previous years?  
The full department assessment meetings also include review of prior changes to assess their effectiveness.

### Additional Questions

1. On what schedule/cycle will program faculty assess each of the program's student learning outcomes? (Please note: It is not recommended to try to assess every outcome every year.)  
Review meetings in even years - even outcomes and an overall review of the assessment plan  
Review meetings in odd years – odd outcomes
2. Describe how, and the extent to which, program faculty contributed to the development of this plan.  
The general format for the plan was developed and adopted in a full faculty meeting in Fall 2022, and then the adoption of this version for UAC/HLC occurred in Fall 2023 after further faculty consultation. The artifacts for courses are generally chosen by the faculty who teach those courses. Other modifications have occurred due to faculty discussion over the past year, and the expectation is that will continue (see overall review of the assessment plan).

**IMPORTANT: Please remember to submit any rubrics or other assessment tools along with this plan.**

### Example Rubrics

Example rubrics are provided below. Not all rubrics are available at this time – updated versions will be provided with the annual reports for the appropriate outcomes.

#### OUTCOME 1:

##### MENG 2150 Dynamics

Indicator	Below Expectations	Meets Expectations	Above Expectations
Ability to analyze and solve two-dimensional rigid body kinematic problems involving rotation around an external instantaneous center of zero velocity.	Student fails to solve the problem due to significantly improper procedures, incorrect equations, incomplete work, and/or significant mathematical errors.	Student uses mostly proper procedures to formulate and solve the resulting governing equation with at most a few errors.	Student uses proper procedures to formulate and solve the governing equations with minimal errors.

##### MENG 3200 Fluid Dynamics

Indicator	Below Expectations	Meets Expectations	Above Expectations
Ability to formulate and solve a two-dimensional control volume mass momentum conservation problem.	Student fails to solve the problem due to significantly improper procedures, incorrect equations, incomplete work, and/or significant mathematical errors.	Student uses mostly proper procedures to formulate and solve the resulting governing equation with at most a few errors.	Student uses proper procedures to formulate and solve the governing equations with minimal errors.

Indicator	Below Expectations	Meets Expectations	Above Expectations
Ability to formulate and a Buckingham-PI dimensional analysis problem.	Student fails to solve the problem due to significantly improper procedures, incorrect equations, incomplete work, and/or significant mathematical errors.	Student uses mostly proper procedures to formulate the proper dimensionless PI groups with at most a few errors.	Student uses proper procedures to formulate the proper dimensionless PI groups with minimal errors.

OUTCOME 2:

AENG 2020 Introduction to Aerospace Engineering

Indicator	Below Expectations	Meets Expectations	Above Expectations
1) Ability to conduct design analysis to predict prototype performance	Multiple expected analyses in the project report are absent and/or have major errors	All the primary analyses are included and reasonably completed but with some errors	All primary analyses are included and completed with minimal errors
2) Ability to prototype and test a design to meet requirements	Team fails to build a glider that is consistent with project requirements and/or that can glide	Team builds a glider consistent with project requirements that can glide	Team builds a glider consistent with project requirements that can glide more than 45'

AENG 4014 Flight Vehicle Analysis and Design II

	Unsatisfactory	Marginal	Good	Excellent	Outstanding
Development of Requirements	Primary requirements inadequately define the project	Primary requirements have some gaps in terms of completeness and connections to needs/mission	Primary requirements are mostly complete and well-constructed with connections to needs/mission	Primary requirements well-developed and defined by needs and mission	Requirements well-developed including derived and sub-system requirements and clearly defined by needs/mission
Assessment of Design Performance	Design does not meet majority of primary reqmnts and some reqmnts are not assessed	Design does not meet majority of primary requirements	Design meets majority of primary requirements	Design meets most primary requirements	Design meets all primary requirements
Consideration of Broader Factors in Design Process	Report does not identify obvious broader factors and does not generally address mitigation and design impacts.	Report describes broader factors but with multiple gaps in mitigation and design impacts.	Report describes broader factors, but mitigation and design impacts have several minor issues and/or missing information.	Report describes efforts to address broader factors, including mitigation strategies, but not through the full design process.	Report describes efforts to address broader factors, including mitigation strategies, through the full design process including requirements, design choices, and risk assessment

OUTCOME 3:

AENG 2020 Introduction to Aerospace Engineering

Indicator	Below Expectations	Meets Expectations	Above Expectations
1) Ability to communicate in an orderly and complete manner.	Sections of the project report are absent and/or have significant misplaced or missing material.	All required sections of the project report are included with only occasional misplaced or absent material.	All required sections of the report are included with the appropriate material in each section.
2) Ability to communicate technical concepts through written descriptions, equations, data, and figures.	Report does not include needed equations, data tables, plots, and/or figures, or these items are not clear, accurate, and/or properly constructed.	Report contains the equations, data tables, plots, and figures necessitated by the laboratory description. These are generally accurate, complete, and properly constructed.	The equations, data tables, plots, and figures are well-constructed, accurate, and complete and are integrated into the text so as to significantly enhance the understanding of the written report by the reader.
3) Ability to use proper grammar and spelling.	Report has numerous grammatical and spelling errors, no evidence of proofreading.	Report has several grammatical and spelling errors, appears to have been incompletely proofread.	Report has minimal grammatical and spelling errors, appears to have been proofread.
4) Ability to use effective writing syntax and voice.	Report has sufficient syntax, tense, and voice issues to significantly hamper the understanding of the report by the reader.	Report has occasional sections where the voice and tense are inconsistent or incorrect, or where the sentence/paragraph structure is not well-organized or lacks sufficient clarity.	Report uses readily comprehensible and followable syntax and uses proper voice and tense consistently throughout the report.
5) Overall communication quality.	Report fails to convey main points of the project without significant parsing and re-reading of sections, if at all.	Report conveys information in a sufficiently logical, efficient, precise, and complete manner such that the main points of the project are generally understood with a single read.	Report conveys information in a logical, efficient, precise, and complete manner such that the project is fully understood with a single read.

MENG 3201 Fluids Lab

Indicator	Below Expectations	Meets Expectations	Above Expectations
-----------	--------------------	--------------------	--------------------

1) Ability to communicate in an orderly and complete manner.	Sections of the lab report are absent and/or have significant misplaced or missing material.	All required sections of the lab report are included with only occasional misplaced or absent material.	All required sections of the lab report are included with the appropriate material in each section.
2) Ability to communicate technical concepts through written descriptions, equations, data, and figures.	Report does not include needed equations, data tables, plots, and/or figures, or these items are not clear, accurate, and/or properly constructed	Report contains the equations, data tables, plots, and figures necessitated by the laboratory description. These are generally accurate, complete, and properly constructed following the laboratory manual	The equations, data tables, plots, and figures are well-constructed, accurate, and complete and are integrated into the text so as to significantly enhance the understanding of the written report by the reader.
3) Ability to use proper grammar and spelling.	Final report has numerous grammatical and spelling errors, no evidence of proofreading.	Final report has several grammatical and spelling errors, appears to have been incompletely proofread.	Final report has minimal grammatical and spelling errors, appears to have been proofread.
4) Ability to use effective writing syntax and voice.	Final report has sufficient syntax, tense, and voice issues to significantly hamper the understanding of the report by the reader.	Final report has occasional sections where the voice and tense are inconsistent or incorrect, or where the sentence/paragraph structure is not well organized or lacks sufficient clarity.	Final report uses readily comprehensible and followable syntax and uses proper voice and tense consistently throughout the report.



5) Overall communication quality.	Report fails to convey main points of the lab without significant parsing and re-reading of sections, if at all.	Report conveys information in a sufficiently logical, efficient, precise, and complete manner such that the main points of the lab are generally understood with a single read.	Report conveys information in a logical, efficient, precise, and complete manner such that the lab is fully understood with a single read.
-----------------------------------	--	---	--

OUTCOME 4:

AENG 2020 Introduction to Aerospace Engineering

Indicator	Below Expectations	Meets Expectations	Above Expectations
1) Ability to identify and describe an ethical issue related to engineering.	Unable to identify and/or accurately describe an ethical issue in a manner relevant to engineering	Able to identify and accurately describe the ethics of an engineering situation	Able to identify and accurately describe the ethics of an engineering situation and place it in a broader context
2) Ability to explain the impact of engineering decisions in a global, economic, environmental, and/or social context.	Explanation of impact is absent or rudimentary; the context is poorly defined.	Explanation of impact is substantive and its relation to at least one broader context is clearly defined	Explanation of impact is thorough and substantively connected to multiple types of broader context.
3) Ability to apply engineering ethical codes to specific situations	No specific application of an engineering ethical code is made.	At least one aspect of an engineering ethical code is applied in a relevant manner.	Multiple aspects of engineering ethical codes are applied in a relevant and contextualized manner.

OUTCOME 5:

AENG 4014 Flight Vehicle Analysis and Design II

	Unsatisfactory	Marginal	Good	Excellent	Outstanding
Team Management	Team fails repeatedly in terms of preparation, work structure, work expectations, and maintaining schedules.	Team has lapses in preparation, work structure, work expectations, and maintaining schedules which are sometimes allowed to linger.	Team has lapses in preparation, work structure, work expectations, and maintaining schedules, but consistently corrects these issues in a prompt fashion.	Team is mostly prepared, mostly follows a defined work structure and expectations, and is generally on schedule.	Team is consistently prepared, has a defined work structure and expectations, and is on or ahead of schedule.
Collaborative Work	Some team members are effectively excluded from participating in project planning, development, and work.	The full team does not regularly participate in project planning, development, and work efforts, with consistent unevenness in contributions.	All team members participate in project planning, development, and work efforts, but with some members consistently being more prominent than others.	All team members participate in project planning, development, and work efforts, but with some transient unevenness.	All team members consistently participate in project planning and development and work efforts are cooperatively shared among team members.

OUTCOME 6:  
MENG 3201 Fluids Lab

Indicator	Below Expectations	Meets Expectations	Above Expectations
1) Data Collection	Procedure is incomplete and/or data is implausible or inaccurately presented.	Procedure is complete and necessary data is presented appropriately.	Additional useful data or procedural steps beyond what is required is provided.
2) Data analysis	Data analysis has major errors	Data analysis has minor errors that do not significantly change lab conclusions.	Data analysis is accurate and complete including error calculations.

3) Discussion and Conclusions	There is no significant discussion or conclusions drawn from the lab.	The discussion and conclusions cover expected topics	The discussion and conclusions provide further information than the standard expectations.
-------------------------------	---	--	--

AENG 4111 Aerospace Lab

**Grading Rubric – Aerospace Lab**

Category	Excellent 95%	Good 85%	Fair 75%
<b>Title (5%)</b>	Clearly describes the content of the current lab exercise. Uses descriptive words that are associated with the lab.	Describes the content but the usage of descriptive words is not appropriate	The content is not clearly described. Fair use of descriptive words
<b>Introduction &amp; Objectives (15%)</b>	Clear background information based on a thorough literature search. Uses proper “in text” citations. Includes a rationale for the study along with a hypothesis.	Contains background information but is not complete. The hypothesis is partially stated.	Background information is not complete and lacks proper “in text” citations. The hypothesis is not clearly stated.
<b>Materials and Methods (20%)</b>	Contains a complete list of the experimental procedures. Steps taken during the lab are easy to follow in a paragraph form. The section is organized in a way that the reader understands the logical flow of the lab. Proper use of third person and past tense.	One or more relevant pieces of information are missing. The section is not very well-organized Use of first person or improper use of verb tense appears in part of the text.	Misses several components of the experimental procedures. There is a lack of organization and there is not proper use of grammar standards.
<b>Data Analysis &amp; Discussion (30%)</b>	Key results are presented in an orderly and logical sequence using both text and illustrative materials (Tables and Figures). All the relevant information obtained in the experiment is included. All calculations are provided in a logical manner using proper units	One or more key results are missing. Figures and tables are present but contain minor errors.	Misses several key results. Figures lack proper identification in the Y and X axis. Tables have missing titles. The text doesn’t follow the sequence of the tables and/or figures.
<b>Conclusion (15%)</b>	Proper interpretation of results. Summarizes data used to draw conclusion Discusses applications or real-life situations Addresses hypothesis and cites sources of errors Connects the conclusion with the introduction by way of the stated hypothesis and literature cited.	Interpretation of results is presented. However, there is a disconnection between the discussion and the testable hypothesis identified in the introduction.	Misses the interpretation of key results. There is little connection between the discussion and the introduction.
<b>Report format and quality (15%)</b>	Lab report submitted as directed, and on time. Directions were followed, questions were answered correctly	Minor errors in format or procedures were encountered	Directions were not explicitly followed.

OUTCOME 7:

SE 1700 Engineering Fundamentals

Criteria	Ratings					Pts
<p>First Research Question</p> <p>The research question is a) relevant to your part of the project, b) involves a question to be answered or something to be learned, and c) is narrow enough that it can be resolved with a search.</p>	<p><b>6 pts Full Marks</b></p>	<p><b>5 pts Some answers are incomplete or missing</b></p>	<p><b>4 pts Mostly there</b></p>	<p><b>2 pts Lots of missing items</b></p>	<p><b>0 pts Didn't do this</b></p>	<p>6 pts</p>
<p>Second Research Question</p> <p>The research question is a) relevant to your part of the project, b) involves a question to be answered or something to be learned, and c) is narrow enough that it can be resolved with a search.</p>	<p><b>6 pts Full Marks</b></p>	<p><b>5 pts Some answers are incomplete or missing</b></p>	<p><b>4 pts Mostly there</b></p>	<p><b>2 pts Lots of missing items</b></p>	<p><b>0 pts Didn't do this</b></p>	<p>6 pts</p>
<p>Third Research Question</p> <p>The research question is a) relevant to your part of the project, b) involves a question to be answered or something to be learned, and c) is narrow enough that it can be resolved with a search.</p>	<p><b>6 pts Full Marks</b></p>	<p><b>5 pts Some answers are incomplete or missing</b></p>	<p><b>4 pts Mostly there</b></p>	<p><b>2 pts Lots of missing items</b></p>	<p><b>0 pts Didn't do this</b></p>	<p>6 pts</p>
<p>Reference 1-1</p> <p>[Note: the first number is the question, the second is the reference] The reference is from a Libraries search, and addresses the research question</p> <p>Repeat for References 1-2 to 1-3, 2-1 to 2-3, and 3-1 to 3-3.</p>	<p><b>4 pts Full Marks</b></p>	<p><b>3 pts Library search but relevance is iffy</b></p>	<p><b>2 pts Not from a library search</b></p>	<p><b>1 pts Not from the library, doesn't seem to address the question</b></p>	<p><b>0 pts Didn't do this</b></p>	<p>4 pts</p>

Criteria	Ratings	Pts
----------	---------	-----

<p>Explanation for Reference 1-1</p> <p>[Note: the first number is the question, the second is the reference]</p> <p>Explains why this reference was selected and what was learned</p> <p>Repeat for References 1-2 to 1-3, 2-1 to 2-3, and 3-1 to 3-3.</p>	<p><b>3 pts</b> <b>Full</b> <b>Marks</b></p>	<p><b>2.5 pts</b> <b>Decent effort, but</b> <b>incomplete</b> <b>answers</b></p>	<p><b>1.5 pts</b> <b>Only did 1 of the 2</b> <b>(why selected or</b> <b>what was learned)</b></p>	<p><b>0 pts</b> <b>Didn't</b> <b>do this</b></p>	<p>3 pts</p>
---	--	--	---	--	--------------

Criteria	Ratings			Pts	
Found a technical citation style	<p><b>3 pts</b> <b>Full</b> <b>Marks</b></p>	<p><b>2.5 pts</b> <b>Found a style, but it's not a</b> <b>technical one</b></p>	<p><b>0 pts</b> <b>Did not cite a</b> <b>style</b></p>	3 pts	
Implemented the Style consistently	<p><b>6 pts</b> <b>Full</b> <b>Marks</b></p>	<p><b>5 pts</b> <b>Mostly</b> <b>there</b></p>	<p><b>3 pts</b> <b>A few</b> <b>egregious</b> <b>mistakes</b></p>	<p><b>0 pts</b> <b>Wildly inconsistent or no style evident</b></p>	6 pts
Total Points: 90					