

**University of Central Florida**  
**College of Engineering and Computer Science**  
**Department of Mechanical and Aerospace Engineering**  
**Faculty Annual Evaluation Standards and Procedures (AESP)**

Intended for first use in the 2020-2021 Evaluation Period.

## **Introduction**

The faculty members of the Department of Mechanical and Aerospace Engineering (MAE) at UCF have worked to develop an Annual Evaluation Standards and Procedures (AESP) plan that will serve as a guide for the faculty members' performance in the areas of teaching, research & scholarly activity, and service. The department's AESP is aligned with the University's guidance for AESPs. It is aligned with the UCF College of Engineering and Computer Science (CECS) missions and UCF's strategic plan. All faculty members of the MAE department are expected to perform tasks and activities that will support the mission and goals of the department.

The activities of faculty members in the areas of teaching, research and service will be evaluated annually using the academic year as stated in the most current UCF BOT-UFF Collective Bargaining Agreement. Each faculty member will complete an annual summary of their activities (Faculty Annual Report) related to teaching, research and service duties. This summary of activities will be evaluated by the Department Chair using the MAE AESP criteria as described in the following sections. The faculty may request and meet individually with the Department Chair to discuss the results of the annual evaluation and any suggestions for improvement and/or FTE changes needed to enhance teaching, research or service for the following academic year.

Upon review of the Faculty Annual Report (FAR) of effort and activities, the MAE Department Chair will assign a rating for each category (i.e. teaching, research & scholarly activity, service, and other duties as assigned). Standard Guidelines outlined in this document will be used by the Department Chair to assign ratings for the various categories.

## Teaching

Unsatisfactory	Fails to meet any one of the minimum teaching requirements (MTR) for two consecutive years
Conditional	Fails to meet any one of the minimum teaching requirements (MTR)
Satisfactory	Meets all of the minimum teaching requirements (MTR)
Above Satisfactory	(Meets the MTR) AND (Meets at least 3 completed items from ETA or ETO)
Outstanding	(Meets all requirements of Above Satisfactory) AND (Meets at least 2 ETOs).

Minimum Teaching Requirements (MTR)	Evidence of Teaching Activity (ETA)	Evidence of Teaching Outcomes (ETO)
<ol style="list-style-type: none"> <li>1. Obtains a combined SPI score of 3.0 or higher on “overall effectiveness of the instructor”*, **</li> <li>2. Submits book orders by deadline provided by the MAE office.</li> <li>3. Provides clear, detailed course syllabi that include student learning outcomes and meet the university’s requirements.</li> <li>4. Teaches according to course syllabi and catalog description.</li> <li>5. Meets classes on a regular basis as scheduled.</li> <li>6. Displays office hours in front of office and provides such info. to MAE office.</li> <li>7. Holds scheduled office hours.</li> <li>8. Replies to time-</li> </ol>	<ol style="list-style-type: none"> <li>1. Involvement in at least one course development activity, such as major course revisions, new course creation, teaching an existing course for the first time.</li> <li>2. Involvement in developing at least one teaching method, e.g. Mixed Mode, Project-Based Learning (PBL), Evaluation and Proficiency Center (EPC).</li> <li>3. Development of at least one educational proposal development, such as NSF NRT, REU, RET, SURF, etc.</li> <li>4. Supervision of at least one undergraduate research, HIM, REU, etc.</li> <li>5. Serving as a member in</li> </ol>	<ol style="list-style-type: none"> <li>1. Leadership in at least one curriculum development such as initiating, planning and executing major curriculum revision that employs assignments and activities clearly tied to student learning outcomes, new teaching lab development, major teaching lab restructuring, or creation of new degree program.</li> <li>2. Leadership in implementing established but nontraditional teaching methods, such as PBL, Mixed Mode, Online Course Delivery, etc.</li> <li>3. Implementation and validation of at least one pedagogical method, such as scholarly work developed and studied</li> </ol>

[Type here]

<p>critical student inquiries.</p> <ol style="list-style-type: none"> <li>9. Provides regular evaluative feedback to student assignments.</li> <li>10. Provides student mentoring when requested, such as in EML, EAS advising I/II.</li> <li>11. Submits grades on time.</li> <li>12. Provides course assessment data on time and per request.</li> <li>13. Submits information requested by Assessment/ABET committee.</li> <li>14. Participates in PhD Qualifying Exams when requested.</li> </ol>	<p>at least one thesis or dissertation committee.</p> <ol style="list-style-type: none"> <li>6. Chair of at least one student thesis and/or dissertation committee.</li> <li>7. Participation in at least one educational partnership development, such as collaboration with CDL, FCTL, interdepartmental or college level assessment, etc.</li> <li>8. Participation in at least one of the following activities: student team competition, independent studies, or direction of projects and student organizations.</li> <li>9. Teaches 5 or more classes per year.</li> </ol>	<p>by faculty, novel teaching effort that results in improved student performance, etc.</p> <ol style="list-style-type: none"> <li>4. Achieves a combined SPI score of 4.0 or higher AND above department average of classes with comparable enrollment on "overall effectiveness of the instructor."*, **</li> <li>5. 3 MS thesis or 1 PhD dissertation supervision to completion during the year or average over the past 3 years, whichever is higher.</li> <li>6. Educational grant award such as NSF NRT, REU, RET, SURF, etc.</li> <li>7. Competitive teaching award such as TIP, Teaching excellence award, SOTL, etc.</li> <li>8. Textbook publication.</li> <li>9. Teaching outcome recognition through major fellowship, student award, such as from NSF, NASA, etc.</li> <li>10. Publication related to engineering education.</li> </ol>
---	---	--

\* The SPI scores in individual courses may be adjusted upward up to 0.5 for large undergraduate classes and/or other considerations, such as first time teaching, new teaching method and unexpected events.

\*\* Combined SPI score will be calculated by taking the arithmetic mean of SPI scores obtained in each course the faculty was assigned classroom teaching during the evaluation period. Courses without classroom teaching such as career advising are excluded in the calculation of the combined SPI score.

[Type here]

Research

Unsatisfactory	Fails to meet any one of the minimum research requirements (MRR) for two consecutive years
Conditional	Fails to meet any one of the minimum research requirements (MRR)
Satisfactory	Meets the minimum research requirements (MRR)
Above Satisfactory	(Meets MRR) AND (Meets 3 completed items from any of the ERAs and ERO1 (x,y,z)) AND (Meets at least 2 out of 3 ERO1 metrics (x,y,z)). An impactful contribution to scholarly work can substitute for deficiency in one of ERO1 metrics (x,y,z). The significance of the contribution must be evidenced by recognition (as listed in ERO under <u>Recognition</u> ) in academic or professional community during the evaluation period.
Outstanding	(Meets MRR) AND (Meets ERO2 (x,y,z)) AND (Has faculty's advisees as first authors in two or more high quality publications*). An impactful contribution to scholarly work can substitute for deficiency in one of ERO2 metrics (x,y,z). The significance of the contribution must be evidenced by recognition (as listed in ERO under <u>Recognition</u> ) in academic or professional community during the evaluation period.

Minimum Research Requirements (MRR)	Evidence of Research Activity (ERA)	Evidence of Research Outcomes (ERO)
<ol style="list-style-type: none"> <li>1. Publication of 1 scholarly article in a peer-reviewed journal or in a conference proceeding.</li> <li>2. Trackable research record on Google Scholar.</li> <li>3. Submission of at least 1 research proposal as PI/CoPI during the year or average over the past 3 years.</li> </ol>	<ol style="list-style-type: none"> <li>1. Publication of 2 scholarly articles in high quality*, peer-reviewed journals or conference proceedings (faculty are encouraged to publish in major journals of professional engineering societies such as ASME and AIAA).</li> <li>2. Submission of 2 research proposals as PI/CoPI during the year or average over the past 3 years.</li> <li>3. Participation in at least one research partnership, such as with industry, other university, research lab.</li> </ol>	<p><u>ERO Metrics</u> ERO is measured by the metrics using x, y and z.</p> <p>x. Publication of x scholarly articles in high quality*, peer-reviewed journals or conference proceedings (faculty are encouraged to publish in major journals of professional engineering societies such as ASME).</p> <p>y. Maintain an active research program by supporting graduate or (a combination of graduate and postdoctoral students), to the order of \$y or above#.</p> <p>z. Research expenditure, averaged over the current year and</p>

[Type here]

	<p>4. At least one presentation by research group at technical conferences or at different universities, research institutions, or industry.</p> <p>5. Submission of at least one invention/ patent disclosure.</p>	<p>previous 2 years, or research expenditure of the current year, whichever is bigger, to the order of \$z or above<sup>##</sup></p> <p>ERO1 x=3, y=\$44,000, z=\$100,000</p> <p>ERO2 x=5, y=\$66,000, z=\$200,000</p> <p><u>Recognition</u></p> <ol style="list-style-type: none"> <li>1. Recognition such as distinguished member of professional organization such as ASME, AIAA, etc.</li> <li>2. Leadership role in research partnership.</li> <li>3. Major conference/workshop/tutorial as keynote or invited speaker.</li> <li>4. Journal cover or featured article.</li> <li>5. National or international level research award.</li> <li>6. Very high number of citations.</li> <li>7. Patent, innovative hardware or software invention.</li> <li>8. Competitive research award, such as RIA, best paper award, etc.</li> </ol>
--	---	--

\* To ensure a paper is considered high quality, the faculty should submit to journals of relevant professional societies such as ASME, AIAA, or in high impact journals.

# The \$ amount accounts for total direct personnel costs (for graduate students and/or postdocs only, e.g. stipend) + tuition support + fees provided from internal, external and matching funds administered through ORC or the UCF Research Foundation. Internal and matching funding should be from non-MAE sources. Non-PI contributions to ORC fellowships are excluded.

## Research expenditure includes internal, external and matching funds administered through ORC or the UCF Research Foundation. Internal and matching funding should be from non-MAE sources. Non-PI contributions to ORC fellowships are excluded.

[Type here]

Service

Unsatisfactory	Fails to meet any one of the minimum service requirements (MSR) for two consecutive years.
Conditional	Fails to meet any one of the minimum service requirements (MSR).
Satisfactory	Meets MSR.
Above Satisfactory	(Meets MSR) AND (Meets at least 3 completed items from ESA or ESO).
Outstanding	(Meets MSR) AND (Meets at least 3 completed items from ESO) AND (Significantly contributes in 1 ESO). 2 ESA may be used in lieu of 1 ESO.

Minimum Service Requirements (MSR)	Evidence of Service Activity (ESA)	Evidence of Service Outcomes (ESO)
------------------------------------	------------------------------------	------------------------------------

[Type here]

<ol style="list-style-type: none"> <li>1. Unless with chair's prior approval, attends all assigned meetings such as committee meetings, AESP meetings, etc.</li> <li>2. Unless with chair's prior approval, attends all dept-wide faculty meetings and retreats.</li> <li>3. Active participation in aforementioned meetings.</li> <li>4. Timely completion of mandatory university duties such as COI, FERPA, etc.</li> </ol>	<ol style="list-style-type: none"> <li>1. Active participation in a professional organization, such as session chair in a conference or committee member in a technical division of professional societies.</li> <li>2. Reviewer of at least one manuscript for a conference or a journal, or evaluation of at least one external P&amp;T dossier.</li> <li>3. Active participation in at least one committee at UCF.</li> <li>4. Active mentoring of other faculty, such as proposal review, participating in faculty development work group, etc.</li> <li>5. Volunteer in at least one department, college or university wide events, such as coordinating seminar, hosting external</li> </ol>	<ol style="list-style-type: none"> <li>1. Officer of a professional organization such as ASME Exec. Comm.</li> <li>2. Editorship, associate editorship, or editorial board member of prestigious journals.</li> <li>3. External reviewer and panel at the state and national levels such as NSF panel.</li> <li>4. Chair of a committee or workgroup at UCF.</li> <li>5. Event/workshop/organizer in a professional conference, or other leadership role such as conference track chair, general chair, etc.</li> <li>6. Invited talks at other universities or industry.</li> <li>7. Promotional activities, e.g., TV interviews, TED talk, magazine articles, etc.</li> <li>8. Leadership in at least</li> </ol>
--	--	--

	<p>visitor, participating in ORC workshop, etc.</p> <p>6. Faculty judge for a student competition at departmental, university or above levels.</p> <p>7. Involvement in at least one K-12 outreach and recruitment activities e.g., open house, recruitment lectures and seminars, National Merit Scholar dinner, etc.</p> <p>8. Faculty advisor to student organization, such as ASME, AIAA.</p>	<p>one department, college or university support functions such as assessment, retention, policy development, cluster lead, etc.</p> <p>9. Competitive service award at national level, from a professional organization, or at UCF.</p> <p>10. Large donation to UCF, facilitated by faculty.</p>
--	---	--



Overall Rating	Necessary Condition
Unsatisfactory	If <b>overall</b> rating is conditional for 2 consecutive years
Conditional	“Conditional” in any area of assignment with an assignment of effort of 5% or more
Satisfactory	WT≥2.0 with “Satisfactory” in each area of assignment with an assignment of effort of 5% or more
Above Satisfactory	WT≥2.5 with “Above Satisfactory” in a weighted, major assignment (≥30%) AND “Satisfactory” in others
Outstanding	WT ≥3.5 with “Outstanding” in a weighted, major assignment (≥30%) AND “Satisfactory” in others

Weighted-score Total (WT) = (Teaching FTE \* T) + (Research FTE \* R) + (Service FTE \* S)

T: Teaching score

R: Research score

S: Service score

The table below gives some examples of grading based on the method above:

T,R,S	Score	Sample FTE: T = 0.4, R = 0.5, S = 0.1						
Unsatisfactory	0							
Conditional	1							
Satisfactory	2				T, S	R, S	R	S
Above Satisfactory	3	T, S	R, S	R	R	T	T, S	T
Outstanding	4	R	T	T, S				R
<b>Weighted Score</b>		<b>3.5</b>	<b>3.4</b>	<b>3.5</b>	<b>2.5</b>	<b>2.4</b>	<b>2.5</b>	<b>3.4</b>
<b>Grade</b>		<b>O</b>	<b>AS</b>	<b>O</b>	<b>AS</b>	<b>S</b>	<b>AS</b>	<b>AS</b>

[Type here]