

Career Line Faculty Overview

The Department of Mechanical Engineering (the “Department”), as part of the Walter Scott Jr, College of Engineering (WSCOE), recognizes our Non-Tenure Track Faculty, as defined in section E.13 of the CSU Academic Faculty and Administrative Professional Manual, as “Career Line” faculty. Therefore, this designation/nomenclature will be used throughout this document. Job Titles for the Department’s Career Line teaching and research faculty associate with titles outlined in the Faculty Manual in the following table, along with minimum prerequisite professional degrees required to hold each position:

	Teaching Instructors	Teaching Professors	Research Investigators	Research Professors
Level 1	Instructor (MS)	Assistant Professor of Practice (PhD)	Assistant Research Investigator (MS)	Assistant Research Professor (PhD)
Level 2	Senior Instructor (MS)	Associate Professor of Practice (PhD)	Research Investigator (MS)	Associate Research Professor (PhD)
Level 3	Master Instructor (MS)	Professor of Practice (PhD)	Senior Research Investigator (MS)	Research Professor (PhD)

The preceding Department titles are used throughout this document.

Promotion of Career Line Faculty

Normally, after five (5) years in rank, faculty are eligible to be considered for promotion. If the promotion is approved, it shall become effective the following July 1. Promotion may be considered prior to five (5) years in rank in those cases in which the faculty member’s performance clearly exceeds the standards for promotion (as outlined below). The Department Head shall initiate recommendations for promotion of Career Line faculty by the start of the fall semester preceding the expected decision. For each member recommended, the Department Head shall convene the Career Line Promotion Committee. A chair of the committee will be appointed by the Department Head. The committee shall examine the credentials and promotion dossier of the member and shall vote to grant or deny promotion. A recommendation shall be a simple majority vote. The recommendation shall include a vote summary and a statement representing the majority and minority points of view. The chair shall, within two weeks, deliver the written recommendation to the Department Head.

The Career Line Promotion Committee

The Career Line Promotion Committee shall consist of all Career Line faculty at or above the rank being sought by the candidate. The Career Line Promotion Committee shall contain at a minimum three (3) Career Line members at the rank or above being sought for promotion within the same faculty classification (i.e. Teaching or Research). If the department does not have three qualified Career Line members, other Career Line members can be appointed to the committee by the Department Head, preferably from within the WSCOE, and may be of differing faculty classifications. If WSCOE cannot provide additional Career Line faculty, Career Line faculty

committee members may be sought from science and engineering-related fields within CSU to serve on the committee (e.g., natural sciences).

The committee will meet annually and review the progress of all Instructors, Assistant Professors of Practice, Assistant Research Investigators and Assistant Research Professors. The committee is charged with evaluating the current level of accomplishment of the Instructors, Assistant Professors of Practice, Assistant Research Investigators, and Assistant Research Professors as it relates to promotion to Senior Instructor, Associate Professor of Practice, Senior Investigator, and Associate Research Professor, respectively. In addition, a comprehensive performance review of each Instructor, Assistant Professor of Practice, Assistant Research Investigator, and Assistant Research Professor shall be conducted by the midpoint of his or her probationary period.

Every Senior Instructor, Master Instructor, Associate Professor of Practice, Professor of Practice, Senior Research Investigator, Master Research Investigator, Associate Research Professor, and Research Professor will have a comprehensive performance evaluation performed by the Department Head every five years.

Teaching Faculty (Assistant Professor of Practice, Associate Professor of Practice, Instructor, or Senior Instructor)

In the case of reviewing promotions initiated by the Department Head, a promotion dossier documenting the fulfillment of requirements for the desired title (e.g., academic degree) and excellence in all assigned duties at current title will be evaluated by the Career Line Promotion Committee. The committee will review the dossier and any other pertinent information. The committee shall consider three (3) evaluation criteria, with the weight of each of these criteria being commensurate with the faculty member's effort distribution: 1) teaching excellence; 2) professional, scholarly activity, and/or creativity; and 3) intramural and extramural service. A promotion recommendation shall be by a majority vote of the promotion committee. The recommendation shall include a vote summary and a statement representing the majority and minority points of view. The recommendation shall be forwarded to the Department Head. After the recommendation is received, a contrary decision may be issued by the Department Head only for compelling reasons that shall be stated in writing to the faculty member, the promotion committee, and the Dean of the WSCOE. If a contrary decision is issued, the faculty member and the promotion committee shall be given seven (7) working days from the date of notification of the contrary recommendation to respond in writing to the Department Head's reasons for opposition. The Department Head's written contrary decision, and the faculty member's and promotion committee's written response, will be forwarded by the promotion committee to the WSCOE Dean for a further consideration.

Research Faculty (Assistant Research Professor, Associate Research Professor, Research Investigator, Senior Research Investigator)

In the case of reviewing promotions initiated by the Department Head, a promotion dossier documenting the fulfillment of requirements for the desired title (e.g., academic degree) and excellence in all assigned duties at current title will be evaluated by the Career Line Promotion Committee. The committee will review the dossier and any other pertinent information. The

committee shall consider three (3) evaluation criteria, with the weight of each of these criteria being commensurate with the faculty member's effort distribution: 1) research and scholarly accomplishments; 2) intramural and extramural service; and 3) teaching and mentorship. A promotion recommendation shall be by a majority vote of the promotion committee. The recommendation shall include a vote summary and a statement representing the majority and minority points of view. The recommendation shall be forwarded to the Department Head. After the recommendation is received, a contrary decision may be issued by the Department Head only for compelling reasons that shall be stated in writing to the faculty member, the promotion committee, and the Dean of the Walter Scott Jr, College of Engineering (WSCOE). If a contrary decision is issued, the faculty member and the promotion committee shall be given seven (7) working days from the date of notification of the contrary recommendation to respond in writing to the Department Head's reasons for opposition. The Department Head's written contrary decision, and the faculty member's and promotion committee's written response, will be forwarded by the promotion committee to the WSCOE Dean for a further consideration.

Career Line Promotion Dossier

Teaching Faculty (Assistant Professor of Practice, Associate Professor of Practice, Instructor, or Senior Instructor)

The Career Line promotion dossier is intended to be a set of documents that highlights teaching effectiveness and the impact that the Career Line faculty has had on the undergraduate education mission of the department. The promotion dossier should be the primary source of evidence used by the Career Line committee when evaluating the candidate.

The completed Career Line Promotion Dossier must include:

- Narrative statement of teaching goals and philosophy.
- Narrative statement on teaching impact and self-evaluation of teaching effectiveness.
- Supervisor and/or peer evaluation notes from teaching observations.
- A teaching matrix outlining courses taught, enrollment in courses, and whether significant course revision was performed (See Appendix).
- Review of the promotion dossier from Career Line or teaching faculty who are external to CSU.

In addition to the materials listed above, the Career Line Promotion Dossier may include other supporting documents that highlight teaching, scholarship, and service impact. These documents may include:

Teaching

- Detailed curricular revisions and program development information.
- Evidence of integration of critical thinking activities into courses.
- Evidence of effective technology use in teaching and learning.
- Evidence of innovations in courses (e.g., improvements on past practices or efforts to incorporate new knowledge and processes within the discipline).
- Lessons and assessments.
- Student work samples.
- Data and excerpts from student course evaluations.
- Teaching honors and awards.
- Intramural and extramural communications that recognize teaching excellence.

Scholarship

- Seminars or lectures given at other institutions or professional societies.
- Research/scholarship in engineering education or technical areas (journal publications, abstracts, posters, books, citation metrics, etc.).
- Evidence of continued professional development.

Service

- Administration of a teaching program or learning center.
- Evidence of service to the department, college, or university (committees, etc.).
- Evidence of service to student instruction and community development (mentoring clubs, senior design teams, participation on thesis / dissertation committees etc.).
- Evidence of departmental leadership.
- Participation and/or leadership in external professional organizations.
- Letters of support (can be internal or external to CSU, including industry representatives and former students).

Research Faculty (Assistant Research Professor, Associate Research Professor, Research Investigator, or Senior Research Investigator)

The Career Line promotion dossier is intended to be a set of documents that highlights research and scholarly accomplishment/impact that the Career Line faculty has had on the undergraduate education mission of the department. The promotion dossier should be the primary source of evidence used by the Career Line committee when evaluating the candidate.

The completed Career Line Promotion Dossier must include:

- Narrative statement of research programs and overall research goals.
- Narrative statement on research impact and self-evaluation of research effectiveness.
- Supervisor and/or funding agency or program sponsor feedback on research programs.
- Review of the promotion dossier from Career Line or research faculty who are external to CSU.

In addition to the materials listed above, the Career Line Promotion Dossier may include other supporting documents that highlight teaching, scholarship, and service impact. These documents may include:

Scholarship

- Seminars or lectures given at other institutions or professional societies.
- Research/scholarship in engineering education or technical areas (journal publications, abstracts, posters, books, citation metrics, etc.).
- Evidence of continued professional development.

Research and Scholarly Accomplishments

The main focus of the assessment of Research Faculty members should be on research contributions and impact, which should be assessed using essentially the same measurements and standards used to assess the research accomplishments of tenure-track faculty of similar rank. The Career-line Faculty member is expected to contribute significantly and distinctly to the

development and dissemination of new knowledge through research and publication of research results. The following will be considered in evaluating a candidate's research and scholarship according to accepted publishing patterns in the candidate's own research area:

- Research grants and contracts obtained, and associated research expenditures due to the candidate's independent research program.
- Publication of original research papers in refereed technical journals and conference proceedings. The prestige of the journals and conferences and the quality number of publications, will be considered.
- Presentations at conferences, workshops, colloquia or seminars. Keynote, plenary and invited talks will be noted.
- U.S. or international patents obtained for work performed as a Research Faculty member.
- Publication of research monographs, book chapters, and book reviews.
- Impact of consulting related to candidate's engineering expertise.
- Entrepreneurial, technology translation or research commercialization efforts
- Federal (i.e. SBIR), venture or other research funding obtained supporting the entrepreneurial, technology translation or commercialization efforts.
- Other evidence that demonstrates the impact of the candidate's scholarly work

Service

Research Faculty members are expected to perform the types of professional service typical of active researchers. Research-related service, such as recruiting graduate students, serving on graduate students' advisory committees, serving on a graduate committee, or any other research-related departmental, college or university activity is an appropriate component of a Research Faculty member's duties. External professional service is also important and should be included in the assessment. Type internal and external service may include:

- Evidence of service to the department, college, or university (committees, etc.).
- Evidence of service to student instruction and community development (mentoring clubs, senior design teams, participation on thesis / dissertation committees etc.).
- Evidence of departmental leadership.
- Participation and/or leadership in professional and academic organizations.
- Letters of support (can be internal or external to CSU, including industry representatives and former students).

Teaching

Research faculty members are not typically expected to do classroom teaching, but they are expected to advise undergraduate and/or graduate students on their research projects. In those cases where a Research Faculty member teaches a class, this should be assessed as well.

Supporting documentation of teaching activities may include:

- A teaching matrix outlining courses taught, enrollment in courses, and whether significant course revision was performed (See Appendix).
- Detailed curricular revisions and program development information.
- Evidence of integration of critical thinking activities into courses.
- Evidence of effective technology use in teaching and learning.
- Evidence of innovations in courses (e.g., improvements on past practices or efforts to incorporate new knowledge and processes within the discipline).
- Lessons and assessments.
- Student work samples.

- Data and excerpts from student course evaluations.
- Teaching honors and awards.

Policies and Promotion of Career Line Faculty

Internal Titles Defined

Teaching Faculty

Career Line faculty are typically assigned a 90% teaching and 10% service activities distribution effort. These efforts may be adjusted and negotiated with the Department Head depending on inclusion of significant scholarship activities, teaching, and/or an increased service component.

Instructor

Requirements: Earned MS in mechanical engineering or closely aligned discipline. This is a full-time teaching term appointment. Instructors are “eligible” as defined in section 3. Departmental Membership (C.2.4.2) of the Mechanical Engineering Department Code.

Rights and responsibilities: Instructors are expected to demonstrate professional development in teaching and engineering education. They are expected to have a substantial positive impact on the development of students in the classroom and should begin to engage the students in other activities such as faculty mentorship of student groups. It is also expected that Instructors will be regularly engaged in professional development activities such as engineering education research and have the right to negotiate course buy-out with the Department Head to support such work. The Instructor should start to demonstrate a larger scale reputation and concentrate on excellence in teaching methods.

Senior Instructor

Requirements for promotion to this rank: Earned MS in mechanical engineering or closely aligned discipline and a minimum of five (5) years of academic or industrial experience as an Instructor (or equivalent position providing such experience). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. This is a full-time teaching term appointment. Instructors are “eligible” as defined in section 3. Departmental Membership (C.2.4.2) of the Mechanical Engineering Department Code and are supported on a continuing contract.

Rights and responsibilities: In addition to the duties of an Instructor, a Senior Instructor is expected to demonstrate excellence in teaching and engineering education, including involvement in content creation and providing substantial input/direction with respect to the mechanical engineering undergraduate program. They are expected to have substantial positive impact on the development of students both in the classroom and in activities that promote student development, such as mentorship of student groups. These instructors may participate in professional development activities, including but not limited to research, and have the right to negotiate course buy-out with the Department Head to support such work. Senior Instructors may also engage in mentoring of Instructors and Assistant Professors of Practice and should demonstrate active participation in professional societies. With approval by a two-thirds majority vote by the Graduate Education Committee, Senior Instructors may sit on graduate student

committees and serve as a co-advisor on Master of Science thesis committees, with an Associate Research Professor, Research Professor or tenured/tenure-track faculty member serving as the major advisor.

Master Instructor

Requirements for promotion to this rank: Earned MS in mechanical engineering or closely aligned discipline and at least five (5) years of academic or industrial experience as a Senior Instructor (or equivalent position providing such experience). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. Promotion into this rank requires one to have a nationally recognized impact in engineering education. This may be demonstrated by exercising best practices in teaching, such as textbook authorship and publication or developing/providing significant online content, having leading roles in conferences and/or editorial responsibilities, and participating in outreach programs. Direct placement into this rank requires approval of the Career Line Promotion Committee. This is a full-time teaching term appointment. Senior Instructors are “eligible” as defined in section 3. Departmental Membership (C.2.4.2) of the Mechanical Engineering Department Code and are supported on a continuing contract.

Rights and responsibilities: In addition to the duties of a Senior Instructor, one is expected to provide academic and pedagogical leadership to the department, college, and/or university, and to engineering education or other professional societies. These faculty may participate in professional development activities, including but not limited to, research and they have the right to negotiate course buy-out with the Department Head to support such work. A Master Instructor should have a documented track record of successful mentoring of Instructors, Senior Instructors, Assistant Professors of Practice, or Associate Professors of Practice. With approval by a two-thirds majority vote by the Graduate Education Committee, Master Instructors may sit on graduate student committees and serve as a co-advisor on Master of Science thesis committees, with an Associate Research Professor, Research Professor or tenured/tenure-track faculty member serving as the major advisor.

Assistant Professor of Practice

Requirements: Earned MS or PhD in mechanical engineering or closely aligned discipline. This is a full-time teaching term appointment. Assistant Professors of Practice are “eligible” as defined in section 3. Departmental Membership (C.2.4.2) of the Mechanical Engineering Department Code.

Rights and responsibilities: An Assistant Professor of Practice is expected to demonstrate professional development in teaching and engineering education. They are expected to have a substantial positive impact on the development of students in the classroom and should begin to engage the students in other activities such as faculty mentorship of student groups. It is also expected that Professors of Practice will be regularly engaged in professional development activities such as engineering education research and have the right to negotiate course buy-out with the Department Head to support such work. The Professor of Practice should start to demonstrate a larger scale reputation and concentrate on excellence in teaching methods. With approval by a two-thirds majority vote by the Graduate Education Committee, Assistant Professors of Practice may sit on graduate student committees and serve on Master of Science

thesis and Doctor of Philosophy dissertation committees, with an Associate Research Professor, Research Professor, or tenured/tenure-track faculty member serving as the major advisor.

Associate Professor of Practice

Requirements for promotion to this rank: Earned PhD in mechanical engineering or closely aligned discipline and a minimum of five (5) years of experience as an Assistant Professor of Practice (or equivalent). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. This is a full-time teaching term appointment. Assistant Professors of Practice are “eligible” as defined in section 3. Departmental Membership (C.2.4.2) of the Mechanical Engineering Department Code and are supported on a continuing contract.

Rights and responsibilities: In addition to the duties of an Assistant Professor of Practice, as Associate Professor of Practice is expected to demonstrate excellence in teaching and engineering education, including involvement in content creation and providing substantial input/direction with respect to the mechanical engineering undergraduate program. They are expected to have substantial positive impact on the development of students both in the classroom and in activities that promote student development, such as faculty mentorship of student groups. These faculty may participate in professional development activities, including but not limited to research, and have the right to negotiate course buy-out with the Department Head to support such work. Associate Professors of Practice may also engage in mentoring of Assistant Professors and Assistant Professors of Practice and should demonstrate active participation in professional societies. With approval by a two-thirds majority vote by the Graduate Education Committee, Associate Professors of Practice may sit on graduate student committees and serve as a co-major advisor/chair on Master of Science thesis and Doctor of Philosophy dissertation committees, with an Associate Research Professor, Research Professor, or tenured/tenure-track faculty member serving as the major advisor.

Professor of Practice

Requirements for promotion to this rank: Earned PhD in mechanical engineering or closely aligned discipline and at least 5 years of experience as an Associate Professor of Practice (or equivalent). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. Promotion into this rank requires one to have a nationally recognized impact in engineering education. This may be demonstrated by exercising best practices in teaching, such as textbook authorship and publication or developing/providing significant online content, having leading roles in conferences and/or editorial responsibilities, and participating in outreach programs. Direct placement into this rank requires approval of the Career Line Promotion Committee. This is a full-time teaching term appointment. Associate Professors of Practice are “eligible” as defined in section 3. Departmental Membership (C.2.4.2) of the Mechanical Engineering Department Code and are supported on a continuing contract.

Rights and responsibilities: In addition to the duties of an Associate Professor of Practice, one is expected to provide academic and pedagogical leadership to the department, college, and/or university, and to engineering education or other professional societies. These faculty may participate in professional development activities, including but not limited to, research and they have the right to negotiate course buy-out with the Department Head to support such work. A

Professor of Practice should have a documented track record of successful mentoring of Assistant Professors, Associate Professors, Assistant Professors of Practice, or Associate Professors of Practice. With approval by a two-thirds majority vote by the Graduate Education Committee, Professors of Practice may sit on graduate student committees and serve as a co-major advisor/chair on Master of Science thesis and Doctor of Philosophy dissertation committees, with an Associate Research Professor, Research Professor, or tenured or tenure-track faculty serving as the major advisor.

Research Faculty

Research Investigator

Requirements: Earned MS in mechanical engineering or closely aligned discipline. This is a full-time faculty appointment. Assistant Research Investigators are eligible. Assistant Research Investigators are expected to demonstrate excellence in research, assist and support faculty in research, pursue an interdependent research program with documented grant support as the Principal Investigator, Co-Principal Investigator or project participant.

Rights and responsibilities: The Research Investigator is expected to develop a strong record of archival publications as the senior author in their research field. With approval by a two-thirds majority vote by the Graduate Education Committee, Research Investigators may sit on graduate student committees (MS).

Senior Research Investigator

Requirements for promotion to this rank: Earned MS in mechanical engineering or closely aligned discipline and a minimum of five (5) years of experience as a Research Investigator (or equivalent). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. Senior Research Investigators are eligible. Senior Research Investigators are expected to continue their high-quality research activities and establish a reputation in their chosen field.

Rights and responsibilities: With approval by a two-thirds majority vote by the Graduate Education Committee, Senior Research Investigators may sit on graduate student committees (MS) and serve as the co-advisor/chair on Master of Science thesis committees with an Associate Research Professor, Research Professor, or tenured or tenure-track faculty member serving as the major advisor.

Master Research Investigator

Requirements for promotion to this rank: Earned MS in mechanical engineering or closely aligned discipline and at least 5 years of experience as a Senior Research Investigator (or equivalent). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. Promotion to the rank of Master Research Investigator requires that the candidate has developed a research program with documented grant support as the Principal Investigator or Co-Principal Investigator, a strong record of archival publication and has established a reputation as a leader in their field of interest.

Rights and responsibilities: Master Research Investigators are eligible. Master Research Investigators are expected to continue their high-quality research activities and build upon their

reputation as a leader in their chosen field. With approval by a two-thirds majority vote by the Graduate Education Committee, Master Research Investigators may sit on graduate student committees (MS) and serve as the co-advisor/chair on Master of Science thesis committees with an Associate Research Professor, Research Professor, or tenured or tenure-track faculty member serving as the major advisor.

Assistant Research Professor

Requirements: Earned PhD in mechanical engineering or closely aligned discipline. This is a full-time faculty appointment. Assistant Research Professors are eligible. Assistant Research Professors are expected to demonstrate excellence in research, develop an interdependent research program with documented grant support as the Principal Investigator and a strong record of archival publications as the senior author in their research field.

Rights and responsibilities: Assistant Research Professors may sit on graduate student committees (MS and PhD), serve as the major advisor/chair on Master of Science thesis committees, and, with a two-thirds majority vote by the Graduate Education Committee, serve as the major advisor/chair on Doctor of Philosophy dissertation committees with an Associate Research Professor, Research Professor, or tenured or tenure-track faculty member serving as the co-advisor.

Associate Research Professor

Requirements for promotion to this rank: Earned PhD in mechanical engineering or closely aligned discipline and a minimum of five (5) years of experience as an Assistant Research Professor (or equivalent). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. Associate Research Professors are eligible.

Rights and responsibilities: Associate Research Professors are expected to continue their high-quality research activities and establish an international reputation as a leader in their chosen field. Associate Research Professors may sit on graduate student committees (MS and PhD) and serve as the major advisor/chair on Master of Science thesis committees and Doctor of Philosophy dissertation committees.

Research Professor

Requirements for promotion to this rank: Earned PhD in mechanical engineering or closely aligned discipline and at least 5 years of experience as an Associate Research Professor (or equivalent). Given extenuating circumstances, the Department Head can initiate a promotion review before the 5 years of experience is met. Promotion to the rank of Research Professor requires that the candidate has developed an independent research program with documented grant support as the Principal Investigator, a strong record of archival publication as the senior author in their research field and have established an international reputation as a leader in their field of interest. Research Professors are eligible.

Rights and responsibilities: Research Professors are expected to continue their high-quality research activities and build upon their reputation as an international leader in their chosen field. Research Professors may sit on graduate student committees (MS and PhD) and serve as the

major advisor/chair on Master of Science thesis committees and Doctor of Philosophy dissertation committees.