

METALLURGICAL ENGINEERING CERTIFICATE

The Metallurgical Engineering certificate provides a foundation in the interrelationship of processing, microstructure, and properties of structural metals and alloys.

About this Program

- **College:** Herbert Wertheim College of Engineering (<http://catalog.ufl.edu/UGRD/colleges-schools/UGENG/>)
- **Credits:** 10 | Completed with minimum grades of C
- Student Learning Outcomes (SLOs) (<https://public.tableau.com/app/profile/uf.oipr4918/viz/UFStudentLearningOutcomesCertificatesOnly/StudentLearningOutcomes/?publish=yes>)

Certificates must contain at least nine credits of coursework that are unique to that program out of all other certificates and minors.

Department Information

The Department of Materials Science and Engineering strives to serve the scientific and engineering community of the state and nation by providing quality education in the field, conducting basic and applied research to enhance science in the field, and supplying short courses, technology transfer, industrial consulting, and distance learning to promote engineering in the field.

Website (<https://mse.ufl.edu/>)

CONTACT

Email (mkt@warrington.ufl.edu) | 352.846.3300 (tel) | 352.392.7219 (fax)

P.O. Box 116400

549 Gale Lemerand Drive

RHINES HALL

GAINESVILLE FL 32611-6400

Map (<http://campusmap.ufl.edu/#/index/0184>)

Curriculum

- Advanced Engineering Ceramics Certificate
- Biomaterials Certificate
- Combination Degrees
- Materials Science and Engineering
- Materials Science and Engineering Minor
- Metallurgical Engineering Certificate
- Nuclear and Radiological Engineering Minor
- Nuclear Engineering
- Polymer Science and Engineering Certificate
- Semiconductor Materials Certificate

Upon completion of the certificate, students have a fundamental understanding of the processing, microstructures, and properties of metallic structural alloys, as well as materials/process selection and failure analysis.

Prerequisite Courses

Code	Title	Credits
CHM 2045	General Chemistry 1	3
or CHM 2095	Chemistry for Engineers 1	
EMA 3010	Materials	3
EMA 3050	Introduction to Inorganic Materials	3
EMA 4223	Mechanical Behavior of Materials	3
or EGM 3520	Mechanics of Materials	

Required Courses

Code	Title	Credits
EMA 4120	Physical Metallurgy 1	3
EMA 4224	Physical Metallurgy 2	3
EMA 4623	Process Metallurgy	3

EMA 4020L	Metallurgy Laboratory	1
Total Credits		10
