

MATERIALS SCIENCE MINOR

Materials Science is a unique blend of disciplines spanning engineering, science, and forestry at OSU.

The Materials Science minor is aimed at students with a wide range of materials-related interests including composites, ceramics, polymers, metallurgy, electronic materials and devices, solid-state chemistry, and solid-state physics.

Minor Code: 764

| Code | Title | Credits |
|---|---|---------|
| Required Core | | |
| MATS 321 | INTRODUCTION TO MATERIALS SCIENCE | 4 |
| Select one course from the following: | | 3-4 |
| CCE 321 | CIVIL AND CONSTRUCTION ENGINEERING MATERIALS | |
| MATS 322 | MECHANICAL PROPERTIES OF MATERIALS | |
| Select 19-20 credits from the following five categories: ¹ | | 19-20 |
| <i>Structure</i> | | |
| CH 411 | INORGANIC CHEMISTRY | |
| CH 442 | PHYSICAL CHEMISTRY | |
| CHE 445 | POLYMER ENGINEERING AND SCIENCE | |
| ECE 415 | MATERIAL SCIENCE OF NANOTECHNOLOGY | |
| ECE 416 | ELECTRONIC MATERIALS AND DEVICES | |
| MATS 455 | EXPERIMENTAL TECHNIQUES IN MATERIAL SCIENCE | |
| MATS 478 | THIN FILM MATERIALS CHARACTERIZATION AND PROPERTIES | |
| WSE 111 | RENEWABLE MATERIALS FOR A GREEN PLANET | |
| WSE 210 | RENEWABLE MATERIALS TECHNOLOGY AND UTILIZATION | |
| WSE 321 | CHEMISTRY OF RENEWABLE MATERIALS | |
| WSE 322 | PHYSICAL AND MECHANICAL PROPERTIES OF RENEWABLE MATERIALS | |
| WSE 324 | RENEWABLE MATERIALS LABORATORY | |
| <i>Properties</i> | | |
| CCE 422 | GREEN BUILDING MATERIALS | |
| CH 412 | INORGANIC CHEMISTRY | |
| CHE 445 | POLYMER ENGINEERING AND SCIENCE | |
| ECE 411 | ENGINEERING MAGNETICS | |
| ECE 416 | ELECTRONIC MATERIALS AND DEVICES | |
| MATS 455 | EXPERIMENTAL TECHNIQUES IN MATERIAL SCIENCE | |
| MATS 478 | THIN FILM MATERIALS CHARACTERIZATION AND PROPERTIES | |
| MATS 499 | SPECIAL TOPICS (Physical Metallurgy) | |
| ME 484 | FRACTURE OF MATERIALS | |
| ME 599/NSE 599 | SPECIAL TOPICS | |
| WSE 321 | CHEMISTRY OF RENEWABLE MATERIALS | |
| WSE 322 | PHYSICAL AND MECHANICAL PROPERTIES OF RENEWABLE MATERIALS | |
| WSE 324 | RENEWABLE MATERIALS LABORATORY | |
| <i>Processing</i> | | |
| CHE 444 | THIN FILM MATERIALS PROCESSING | |
| ECE 418 | SEMICONDUCTOR PROCESSING | |
| MATS 445 | WELDING METALLURGY | |
| MATS 499 | SPECIAL TOPICS (Additive Manufacturing) | |
| MFGE 337 | MATERIALS AND MANUFACTURING PROCESSES | |
| MFGE 438 | COMPOSITES MANUFACTURING | |
| <i>Design</i> | | |
| MATS 455 | EXPERIMENTAL TECHNIQUES IN MATERIAL SCIENCE | |
| ME 480 | MATERIALS SELECTION | |
| <i>Ethics and Environment</i> | | |
| ECE 415 | MATERIAL SCIENCE OF NANOTECHNOLOGY | |

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| MATS 221/ENGR 221 | THE SCIENCE, ENGINEERING AND SOCIAL IMPACT OF NANOTECHNOLOGY |
| WSE 111 | RENEWABLE MATERIALS FOR A GREEN PLANET |
| WSE 210 | RENEWABLE MATERIALS TECHNOLOGY AND UTILIZATION |
| WSE 453 | [^] FOREST PRODUCTS BUSINESS |
| Total Credits | 27 |

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Baccalaureate Core Course (BCC)

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Writing Intensive Course (WIC)

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At least 3 credits from each category; 12 credits must be upper division (300 level or above)

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