New:

Fall 2020

**College of Architecture and Urban Studies**

LAR 1014 Landscape Architecture Foundation Design Laboratory (CM-5838)

**College of Engineering**

MINE 2564 Resource Exploration and Design (CM-5620)
MINE 3624 Mineral Resource Project Management (CM-5621)
MINE 2714 Introduction to Petroleum and Natural Gas Engineering (CM-5911)
MINE 4654 Mine Power Systems and Automation (CM-5624)
MINE 4644 Environmental Management for Mining and Geoenergy (CM-5627)
MINE 3604 Mining Geomechanics (CM-5912)
MINE 3674 Explosives and Rock Fragmentation (CM-5913)
MINE 3714 Petroleum and Natural Gas Reservoir Engineering (CM-5914)
MINE 4664 Resource Engineering Leadership Seminar (CM-5916)
MINE 1024 Leadership and Service in the Mineral Industries (CM-6012)
CEE 2834 Civil Engineering Drawings and Virtual Modeling (CM-6047)
CEE 3814 Analytical Tools in Civil and Environmental Engineering (CM-6048)

**College of Liberal Arts and Human Sciences**

PM 2684 Marketing and Leasing Residential Properties (CM-6024)
Revised:

Fall 2020

**College of Architecture and Urban Studies**

LAR 2164 Landform Function and Aesthetics (CM-5841)
LAR 3164 Design in Detail: Materials, Methods & Assembly (CM-5842)
LAR 4094 Senior Project (CM-5845)

**College of Liberal Arts and Human Sciences**

PM 2664 Introduction to Property Management (CM-6021)
PM 3634 Managing Affordable and Specialized Housing (CM-6045)

Discontinue:

Fall 2020

**College of Engineering**

MINE 2524 Elements of Mine Design (CM-5620)
MINE 4524 Project Engineering and Mine Management (CM-5621)
MINE 4544 Mine Reclamation and Environmental Management (CM-5627)
MINE 3504 Rock Mechanics (CM-5912)
MINE 3514 Rock Mechanics Lab (CM-5912)
MINE 3524 Excavation Engineering (CM-5913)
MINE 4554 Mining Engineering Leadership Seminar (CM-5916)

New:

Spring 2021

**College of Engineering**

MINE 3644 Applications in Mineral Processing (CM-5622)
MINE 3724 Formation Evaluation and Engineering (CM-5623)
MINE 4714 Well Drilling and Completion Engineering (CM-5625)
MINE 4724 Petroleum and Natural Gas Production Engineering (CM-5626)

Discontinue:

Spring 2021

College of Engineering
MINE 3554 Resource Recovery (CM-5622)

New:

Fall 2021

College of Engineering
ME 4744 Mechatronics: Theory and Application (CM-5364)
ME 4754 Mechatronics: Advanced Topics and Application (CM-5365)
MINE 4614 Health and Safety Systems (CM-5915)

Revised:

Fall 2021

College of Engineering
ISE 4005-4006 Project Management and Systems Design (Revised) (CM-5562)

Discontinue:

Fall 2021

College of Engineering
MINE 4514 Health, Safety, and Risk Management (CM-5915)
<table>
<thead>
<tr>
<th>DEGREES, MAJORS, OPTIONS, MINORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major:</strong></td>
</tr>
<tr>
<td><strong>New:</strong></td>
</tr>
<tr>
<td><strong>Graduating calendar year 2022</strong></td>
</tr>
<tr>
<td><strong>College of Engineering</strong></td>
</tr>
<tr>
<td>Major: Robotics and Mechatronics (RBMT) under Bachelor of Science in Mechanical Engineering (BSME), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5362)</td>
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<tr>
<td>Major: Automotive Engineering (AUTE) under Bachelor of Science in Mechanical Engineering (BSME), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5794)</td>
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<tr>
<td><strong>Major:</strong></td>
</tr>
<tr>
<td><strong>Revised:</strong></td>
</tr>
<tr>
<td><strong>Graduating calendar year 2022</strong></td>
</tr>
<tr>
<td><strong>College of Agriculture and Life Sciences</strong></td>
</tr>
<tr>
<td>Major: Environmental Horticulture (EHRT) under Bachelor of Science in Horticulture (BSHRT), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5893)</td>
</tr>
<tr>
<td>Major: Environmental Science (ENSC) under Bachelor of Science (BS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5894)</td>
</tr>
<tr>
<td>Major: Landscape Horticulture and Design (LCON) under Bachelor of Science in Horticulture (BSHRT), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5895)</td>
</tr>
<tr>
<td><strong>College of Architecture and Urban Studies</strong></td>
</tr>
<tr>
<td>Major: Landscape Architecture (LAR) under Degree: Bachelor of Landscape Architecture (BLA), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5827)</td>
</tr>
</tbody>
</table>
College of Engineering

Major: Aerospace Engineering (AE) under Bachelor of Science in Aerospace and Ocean Engineering (BSAOE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5397)

Major: Ocean Engineering (OE) under Bachelor of Science in Aerospace and Ocean Engineering (BSAOE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5398)

Major: Material Science and Engineering (MSE) under Bachelor of Science in Material Science and Engineering (BSMSE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5469)

Major: Industrial and Systems Engineering (ISE) under Degree: Bachelor of Science in Industrial and Systems Engineering (BSISE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5639)

Major: Mining Engineering (MINE) under Bachelor of Science in Mining Engineering (BSMNE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5917)

Major: Electrical Engineering (EE) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5971)

Major: Space Systems (SPCS) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5972)

Major: Radio Frequency & Microwave (RFMW) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5973)

Major: Photonics (PHTN) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5974)

Major: Micro/Nano Systems (MNSY) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5975)

Major: Energy & Power Electronics Systems (ERES) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5976)
Major: Controls, Robotics & Autonomy (ECRA) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5977)

Major: Communications & Networking (CMNW) under Bachelor of Science in Electrical Engineering (BSEE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5978)

Major: Computer Engineering (CPE) under Bachelor of Science in Computer Engineering (BSCPE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5979)

Major: Software Systems (SFTW) under Bachelor of Science in Computer Engineering (BSCPE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5980)

Major: Networking & Cybersecurity (NWCS) under Bachelor of Science in Computer Engineering (BSCPE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5981)

Major: Machine Learning (MCHL) under Bachelor of Science in Computer Engineering (BSCPE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5982)

Major: Controls, Robotics & Autonomy (CRA) under Bachelor of Science in Computer Engineering (BSCPE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5983)

Major: Chip-Scale Integration (CPI) under Bachelor of Science in Computer Engineering (BSCPE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5984)

College of Liberal Arts and Human Sciences

Major: French (FR) under Degree: Bachelor of Arts in Foreign Languages (BAFL), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5268)

Major: Creative Writing (CW) under Bachelor of Arts in English (BSENG), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5649)

Major: Professional and Technical Writing (PTW) under Bachelor of Arts in English (BAENG), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5652)
Major: Property Management (PM) under Bachelor of Science in Apparel, Housing, and Resource Management (BSARM), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5715)

Major: International Public Policy (IPPL) under Bachelor of Arts in International Studies (BAIS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5951)

Major: International Relations (IREL) under Bachelor of Arts in International Studies (BAIS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5952)

Major: International Studies (IS) under Bachelor of Arts in International Studies (BAIS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5953)

Major: National Security & Foreign Policy (NSFA) under Bachelor of Arts in International Studies (BAIS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5954)

Major: Childhood Pre-Education (CPED) under Bachelor of Science in Human Development (BSHD), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5955)

Major: Human Development (HD) under Bachelor of Science in Human Development (BSHD), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5986)

**College of Natural Resources and Environment**

Major: Environmental Conservation & Society (ECS) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation & Society (BSFRC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5699)

Major: Environmental Informatics (EI) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation (BSFRC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5700)

Major: Environmental Recourse Management (ERM) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation (BSFRC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5701)

Major: Forestry (FORS) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation (BSFRC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5702)
College of Science

Major: Psychology (PSYC) under Degree: Bachelor of Science (BS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5717)

Major Concentration/Options:

New:

Graduating calendar year 2022

College of Agriculture and Life Sciences

Major Concentration/Option: Community Leadership and Development (CLD) under Bachelor of Science (BS) Major: Agricultural Sciences (AGSC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5901)

Major Concentration/Option: Teaching and Learning (TL) under Bachelor of Science (BS) Major: Agricultural Sciences (AGSC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5902)

Major Concentration/Options:

Revised:

Graduating calendar year 2022

College of Agriculture and Life Sciences

Major Concentration/Option: Dairy Business Management (DBM) under Bachelor of Science (BS), Major: Dairy Science (DASC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5871)

Major Concentration/Option: DUAL Emphasis (DUAL) under Bachelor of Science (BS), Major: Dairy Science (DASC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5872)

Major Concentration/Option: Science/PreVet (SPV) under Bachelor of Science (BS), Major: Dairy Science (DASC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5873)

Major Concentration/Option: Agronomy (AGRO) under Bachelor of Science (BS), Major: Crop and Soil Environmental Sciences (CSS), effective for students
graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5881)

Major Concentration/Option: Crop Genetics and Breeding (CRGB) under Bachelor of Science (BS), Major: Crop and Soil Environmental Sciences (CSS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5882)

Major Concentration/Option: International Agriculture (INAG) under Bachelor of Science (BS), Major: Crop and Soil Environmental Sciences (CSS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5891)

Major Concentration/Option: Turfgrass Management (TURF) under Bachelor of Science (BS), Major: Crop and Soil Environmental Sciences (CSS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5892)

Major Concentration/Option: Production/Business (Livestock Emphasis (PBL), Poultry Emphasis (PBP), Equine Emphasis (PBE), Companion and Laboratory Animal Emphasis (PBC)) under Bachelor of Science (BS) Major: Animal and Poultry Science (APSC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5898)

Major Concentration/Option: Pre-Vet (PVT) under Bachelor of Science (BS), Major: Animal and Poultry Science (APSC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5899)

Major Concentration/Option: Science (Livestock Emphasis (SCEL), Poultry Emphasis (SCEP), Equine Emphasis (SCEE), Companion and Laboratory Animal Emphasis (SCEC)) under Bachelor of Science (BS) Major: Animal and Poultry Science (APSC), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5900)

Major Concentration/Option: Dietetics (DIET) under Bachelor of Science (BS), Major: Human Nutrition, Foods and Exercise (HNFE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5962)

Major Concentration/Option: Science of Food, Nutrition and Exercise (SNFE) under Bachelor of Science (BS), Major: Human Nutrition, Foods and Exercise (HNFE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5963)

College of Engineering

Major Concentration/Option: Nuclear Materials (NUCM) under Degree: Bachelor of Science in Material Science and Engineering (BSMSE), Major: Material Science and
Engineering (MSE), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5673)

College of Liberal Arts and Human Sciences

Major Concentration/Option: Pre-Education (PEDU) under Bachelor of Arts in English (BAENG), Major: English (ENGL), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5650)

Major Concentration/Option: Pre-Law (PLAW) under Bachelor of Arts in English (BAENG), Major: English (ENGL), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5651)

Major Concentration/Option: Literature (LIT) under Bachelor of Arts in English (BAENG), Major: English (ENGL), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5653)

Major Concentration/Option: Pre-Medical Professions (PHMD) under Bachelor of Arts in Philosophy (BAPHI), Major: Philosophy (PHIL), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5949)

Major Concentration/Options:

Discontinue:

Graduating calendar year 2021

College of Natural Resources and Environment

Major Concentration/Option: Forest Operations and Business (FOB) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation & Society (BSFRC), Major: Forestry (FORS), last term and year to graduate: Fall 2021 (CM-5702)

Major Concentration/Option: Forest Resource Management (FRM) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation & Society (BSFRC), Major: Forestry (FORS), last term and year to graduate: Fall 2021 (CM-5702)

Major Concentration/Option: Urban Forestry (UFOR) under Degree: Bachelor of Science in Forest Resources and Environmental Conservation & Society (BSFRC), Major: Forestry (FORS), last term and year to graduate: Fall 2021 (CM-5702)
Minor:

Revised:

Graduating calendar year 2022

College of Natural Resources and Environment

Minor: Forestry (FORS), effective for students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021 (CM-5749)