Find it here.

www.nmc.edu

NMC is a unique community college, o ering programs to meet the needs of our local, regional and worldwide learners. Our outstanding faculty and sta care about your success, whether you are seeking transfer credits or specialized training.

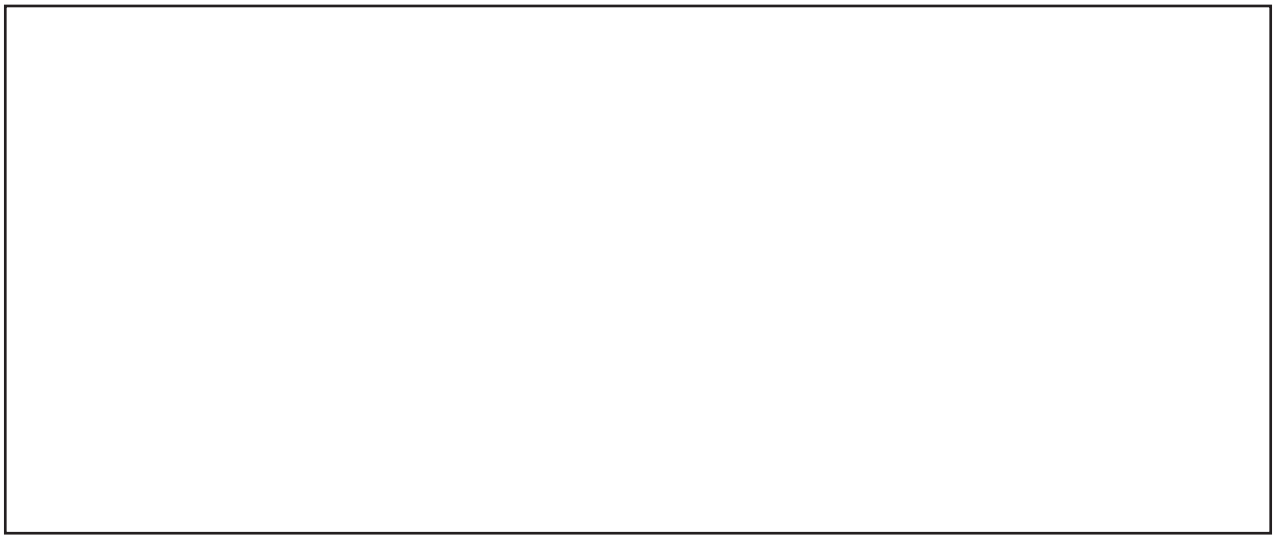
We have many things to be proud of at NMC:

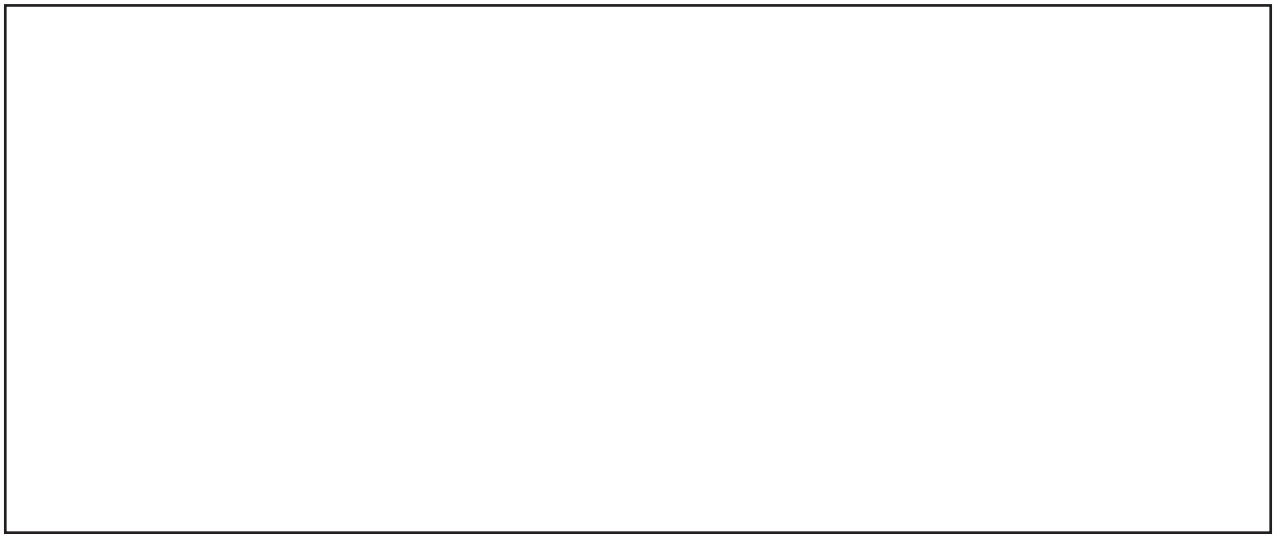
- 2nd in the nation “Best for Vets” community college
- 10th in the nation out of top 15 Best Drone Training Colleges
- 16th in the nation for short-term study abroad programs
- One of the Top 30 “Best Choice Schools for Culinary” nationwide
- Only ADCI Certi ed ROV Pilot Technician Training Program in the world
- Over $800,000 awarded in scholarships each year
- First community college baccalaureate in Michigan
- Great Lakes Maritime Academy—one of seven (7) federally chartered maritime academies
- Dennos Museum Center—which hosts artists from around the world

NMC was built on a culture of innovation. roughout our history we have developed systems that support this way of learning and we are dedicated to continue to lead in this area into the future. Everyone at Northwestern Michigan College is committed to preparing you for success in a global economy and society both today and throughout your lifelong educational journey. Work hard today while building toward your future and know we at Northwestern Michigan College will be doing the same.

“NMC’s faculty and sta take pride in seeing students

NMC.
Find it here.





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NMC students may select from several educational options. Associate degrees, bachelor degrees, and certi cates are awarded to those students who complete a prescribed set of courses in speci c areas of study. Many programs, especially in occupational areas, also lee10003>TMCID ASpan <</Lang (ic R ŠáÚu8~q3BN W^ •$ Q wJ(F† á*ƒ*‡cA¨q:qìªã- , bachelos5e

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Degree Requirements

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e Associate in Science and Arts degree is generally pursued by students who are planning to transfer to a four-year college or university to complete a baccalaureate degree. Students who want to explore the curriculum also frequently pursue the ASA degree.

Completing the General Education Requirements of 30 credits will qualify for the Michigan

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e Bachelor of Science (BS) is for students whose goal is to pursue a select professional eld of study at the baccalaureate level. e program requirements for Maritime Deck O cer, Maritime Engineering O cer, Maritime Power System and Marine Technology are listed on pages 45-47.

MATH COMPETENCY

*Math Competency may be ful lled in one of two ways:

- Placement scores into MTH 121, or higher, or
- Successful completion of MTH 111 with a grade of 2.0 or higher.

OTHER REQUIREMENTS

- Complete a minimum of 120 credit hours with a minimum grade of 2.0 or higher in all required courses.
- Complete one course designated as Cultural

CHM 250 - CHM 250L Organic Chemistry I.....5
CHM 251 - CHM 251L Organic Chemistry II.....5

ENVIRONMENTAL SCIENCE DEPT.

ENV 103 - ENV 103L Earth Science.....4
ENV 104 - ENV 104L Life of the Past.....4
ENV 111 - ENV 111L Physical Geology.....4
ENV 112 - ENV 112L Historical Geology.....4
ENV 117 - ENV 117L Meteorology and Climatology.....4
ENV 131 - ENV 131L Oceanography.....4
ENV 140 - ENV 140L Watershed Science.....4
ENV 270A Michigan Basin Geology (lab only).....2
ENV 270B Field Mapping Techniques (lab only).....2
ENV 270C Precambrian Geology of MI (lab only).....2

PHYSICS DEPT.

* H R J U D S K \ NMC Code 726

NMC o ers coursework in Physical Geography and Introduction to Geography. Regional courses are also o ered that focus on the United States and Canada and the world. In addition, a tools course concentrating on Geographic Information Systems (GIS) is o ered. Students planning on pursuing a rewarding career in Geography are encouraged to meet with the Geography Department Head for help in course selection. Course descriptions for GEO courses are available at www.nmc.edu/programs/course-descriptions/

* H R O R J \ NMC Code 717

Students interested in pursuing a career as a Geologist will take Environmental Studies courses, including Physical and Historical Geology. In addition, students will complete coursework in Chemistry, Physics, and Math.

+ L V W R U \ NMC Code 730

As a separate eld of study within the humanities, history will prepare students to enter secondary education, journalism, the archival and museum professions, and a variety of public history positions upon completion of at least a bachelor's degree. It will also prepare students for entering professional and graduate schools in law and in elds that will enable graduates to teach and do research in institutions of higher learning.

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Fruit and Vegetable Crop Management	NMC Code 581
Landscape Management	NMC Code 582
Viticulture	NMC Code 580

Students planning to transfer to complete a four-year degree in Horticulture should follow a general education curriculum with courses in science, including Chemistry and Biology. In addition, students may take technical courses in soils, plants and plant diseases from Michigan State University, and can do so here at NMC. See page 54 for course requirements.

3ROLWLFDO 6FLHQFH NMC Code 725

Political science as a eld includes the study of American politics, comparative politics, internation0.6 (e at s), ste

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&HUWLÀFDWH RI $FKLHYHPHQW Code: B45 HO ,

e Audio Technology eld is a dynamic industry o ering a variety of career opportunities. Upon successful completion of the core Audio Technology coursework, students may earn the Audio Technology Level I Certi cate of Achievement.

&HUWL¿FDWH 5HTXLUHPHQWV Credits: 16

AUD	100	Applied Music - Audio Tech	2
AUD	101	eor y for Studio Engineers	2
AUD	110	Sound Recording I	2
AUD	111	Sound Recording II	2
AUD	120	Digital Audio I	2
AUD	121	Digital Audio II	2
AUD	130	Live Sound I	2
AUD	131	Live Sound II	2

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e Audio Technology eld is a dynamic industry with new technologies being introduced at a rapid pace. To stay abreast of the latest tools and trends, students may enroll in advanced Audio Technology coursework and earn the Audio Technology Level II Certi cate of Achievement.

e Audio Technology Level II Certi cate of Achievement builds upon the skills learned in the Level I Certi cate of Achievement.

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/HYHO ,, &HUWL¿FDWH 5HTXLUHPHQWV

Prerequisites: Completion of Audio Technology Level I Certi cate

AUD	210	Sound Recording III	2
AUD	220	Digital Audio III	2
AUD	230	Live Sound III	2
AUD	250	Audio Tech Practicum	2
AUD	260	Audio Tech Internship	3
AUD	270	Audio Tech Final Project	3
MUS	106	Class Piano I or	
MUS	112	Class Guitar I	

&HUWLÀFDWH RI $FKLHYHPHQW Code 095 /H O ,

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&HUWLÀFDWH RI $FKLHYHPHQW Code 033

e Microsoft O ce Œ Applications Specialist Certi cate helps meet the demand for quali ed and knowledgeable people in today's workplace. It helps students to acquire the desktop

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,QGXVWU\ &HUWLÀFDWLRQV

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&HUWLÀFDWH RI $FKLHYHPHQW Code: 041 /HYHO ,,

e Web Developer Certi cate is designed for students seeking employment requiring more advanced skills including server-side development, advanced database connectivity, and advanced animation. is certi cate also includes a semester long internship experience.

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BUS	155	Interpersonal Communications
BUS	231	Professional Communications
COM	111	

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&HUWLÀFDWH RI $FKLHYHPHQW Code: EGY /HYHO ,

Skilled carpenters must knowledgeably use specialized tools, read blueprints, frame structures, install doors, windows, cabinets, insulation, nish trim; and construct roofs, decks, and stairways. Being versatile opens a wide range of employment opportunities. e curriculum is designed by the industry and aligned with national competency standards. Students receive hands-on training in our state-of-the-art facilities. Information: (231) 995-2777.

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CAR 101	Introduction to Carpentry	3
CAR 103	Construction Blueprint Reading	3
CAR 105	Foundations and Framing	3
CAR 121	Exterior Construction	3
CAR 125	Interior Construction	3
CMT 107	Construction Supervision	4
MTH 111	Intermediate Algebra	
MTH 120	Mathematical Explorations	3-4

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&HUWLÀFDWH RI $FKLHYHPHQW Code: EGY /HYHO ,,

After completing the Carpentry Technology Level I Certi - cate students may elect to obtain a level II certi cate. Skilled carpenters must knowledgeably use specialized tools, read blueprints, frame structures, install doors, windows, cabinets, insulation, nish trim and construct roofs, decks, and stairways. Being versatile opens a wide range of employment opportunities. e curriculum is designed by the industry and aligned with national competency standards. Students receive hands-on training in our state-of-the-art facilities. Information: (231) 995-2777.

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CAR 102	Introduction to Woodworking	3
CAR 104	Woodworking Applications I	3
CIT 100	Computers in Business - An Intro	3
CMT 207	Construction Cost Estimating	3
EGY 105	Sustainable Building Design	3
EGY 115	R	

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&HUWLÀFDWH RI $FKLHYHPHQW Code 862

Quali ed electricians install, troubleshoot, and repair electrical systems in residential and commercial settings. ere is high demand for well-trained electricians nationwide. e curric-

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NMC Code: 654

e AAS in HVAC/R provides in-depth training and knowledge to those students who seek to have a well-balanced foundation of not only technical skills, but soft skills as well. Students completing this degree will nd a wide range and availability of job opportunities. HVAC/R technicians have been in demand for installations, maintenance, repair, and support for industries ranging from private home owners to hospitals, manufacturers, and breweries. Technical training includes heating, ventilating, air-conditioning, and refrigeration systems for residential through commercial/industrial applications. e curriculum is designed by the industry and aligned with national competency standards (EPA certi cation). Focus is on hands-on training in our state-of-the-art facility. Information: (231) 995-2777.

General Education Requirements Credits: 21-22

Communications: ENG 111 and either BUS 231 or ENG 112or ENG 220 7-8
Humanities: Any Group 1 course 3
Math competency: Placement into MTH 122 or higher, or completion of MTH 121 4
Science: ENV 117 or PHY 121 or ENV 103 4
Social Sciences: Any Group 1 course 3

Occupational Specialty Requirements 39

EGY 145 Geothermal Technology 3
ELE 105 B

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ELE	131	Commercial Electrical*	3
ELE	135	Adv. Commercial Electrical*	3
ELE	142	Industrial Electrical*	3
ELE	146	Adv. Industrial Electrical*	3
HVA	101	Introduction to HVAC/R	3
HVA	106	Fundamentals of Heating*	3
HVA	122	Refrigeration Fundamentals*	3
HVA	126	Residential and Commercial A/C*	3
HVA	132	Commercial A/C & Refrigeration*	3
HVA	136	EPA Certification*	3
PLU	101	Introduction to Plumbing	3
PLU	105	Plumbing Components*	3
PLU	121	Commercial Plumbing*	3
PLU	125	Plumbing Installation*	3

* Denotes courses with required prerequisites.

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ECE 101	Early Childhood Education	3
ECE 202	Human Development and Learning	5
ECE 203	Curriculum for Child Guidance	3
ECE 204	Early Childhood Curriculum	3
ECE 206	Infant Toddler Care Curriculum	3
ECE 220	Early Education Administration	3
ECE 230	Early Literacy and Learning	3
ECE 240	Integrated Arts in Curriculum	3
ECE 290	Early Education Internship*	2-3
EDU 212	Educating Exceptional Children	3
ENG 111	English Composition	4
PSY 101	Intro to Psychology	3

Placement into MTH 111 or higher,
or completion of MTH 23.

* is internship can be split over more than one semester.

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Biomedical Technician.....NMC Code 546
Computer Technology.....NMC Code 545
Electronics Technology.....NMC Code 557
General Technology.....NMC Code 556
Marine Technology.....NMC Code 541
Photonics Technology.....NMC Code 559
Robotics & Automation Technology.....NMC Code 544
Unmanned Aerial Systems Technology.....NMC Code 542
Unmanned Ground Vehicles Technology...NMC Code 543

Engineering technology education focuses primarily on the applied aspects of science and engineering aimed at preparing graduates for practice in that portion of the technological spectrum closest to product improvement, manufacturing, construction, and engineering operational functions.

The NMC Engineering Technology degree offers students a broad-based curriculum across all areas of technical education, preparing the graduates for emerging job markets and highly technical fields. The program is designed to allow students to choose courses of interest or specialize in one of the following specialty areas: Biomedical Technician, Computer Technology, Electronics Technology, Photonics Technology, Robotics & Automation Technology, Unmanned Aerial Systems (UAS) Technology, Marine (ROV) Technology, Unmanned Ground Vehicles (UGV) Technology.

Note: Industry standards may require that students have First Aid/CPR certification and HAZWOPER certification.

General Education Requirements Credits: 21-22

Communications: ENG 111 and ENG 112 or
ENG 220or BUS 231.....7-8
Humanities: PHL 105.....3
Math competency: Placement into MTH 122 or higher,
or completion of MTH 121.....4
Science: BIO 106 or PHY 105.....4
Social Science: GEO 115.....3Math competency: Placement into MTH 122 pe0 Tdty Tf 10 0 0 10

Unmanned Aerial Systems
(UAS) Technology Credits: 19

AVF 141 Remote Pilot Flight 3

AVF 211 Commer

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$VVRFLDWH LQ $SSOLHG 6FLHQFH LQ Law Enforcement

Graduates of this program are eligible to take the state law enforcement o cer examination. Students who anticipate transfering to a four-year college or university need to see an NMC advisor during their rst semester, as some courses may be acceptable for transfer credit. Students may enroll in the Law Enforcement Preservice Police Academy upon completing rst year requirements or with a college degree. Completion of the Police Academy (LWE courses) must occur within two semesters, beginning fall semester and completed the following spring semester. A minimum grade of 2.0 must be achieved in each LWE course, satisfying prerequisites for licensing and qualifying the student to take the state examination to be hired by a law enforcement agency, which activates the license. e Police Academy is approved and regulated by the Michigan Commission on Law Enforcement Standards (MCOLES).

It is mandatory that students meet with the Law Enforcement Coordinator prior to beginning LWE courses to register with MCOLES. Students must pass MCOLES reading/writing and physical agility tests prior to starting the LWE courses. Visit www.michigan.gov/mcoles for online registration or call (231) 995-1283 with questions.

General Education Requirements			Credits: 18
Communications: ENG 111 and ENG 112			8
Humanities: PHL 201 or PHL 202			3
Math competency: Placement into MTH 111 or higher, or completion of MTH 23			
Science: Any Group 1 course with lab			4
Social Sciences: PLS 101 or PLS 132			3
Core Requirements			13
CJ	101	Introduction to Criminal Justice	4
PSY	101	Introduction to Psychology	3
PSY	250	Abnormal Psychology or	
SOC	231	Deviance and Criminal Behavior	3
SOC	101	Introduction to Sociology	3
Occupational Specialty Requirements			39
HAH	200	Emergency Assessment and Intervention	3
LWE	102	Police Operations	4
LWE	210	Cultural Awareness/Diversity	2
LWE	212	Criminal Investigation	3
LWE	214	Firearms	4
LWE	215	Defensive Driving	3
LWE	216	Tra c Enforcement and Investigation	3
LWE	218	Physical Training/Wellness	4
LWE	225	Defensive Tactics	4
LWE	226	Michigan Criminal Law	3
LWE	227	Criminal Procedures	

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e following coursework may be taken in order to qualify for the Certi cate of Achievement in Law Enforcement. Completion of the program quali es students for the Michigan Commission on Law Enforcement Standards (MCOLES), State of Michigan Post-Test Exam and after passing the exam students are certi able to work as Police O cers throughout the State

education and training we have provided since 1969. Curricula range from seamanship, navigation and piloting, to steam and diesel engineering together with up to 300 days of sea time. Our alumni sail with the eets of the Great Lakes and oceans with many having reached the pinnacle of their professions as a Captain or Chief Engineer. With exceptional employment and salaries upon graduation, the time is now to consider a career as a professional mariner. e Admissions O ce is open weekdays from 8:00 am to 5:00 pm. Please visit www.nmc.edu/maritime for additional information.

is program is approved by the U.S. Maritime Administration, the U.S. Coast Guard, and the Michigan Department of Education. A new class begins each year in mid-August (pre-fall semester).

In addition to the above, the Maritime Academy o ers a Bachelor of Science in Maritime Technology - Power Systems program (see page 48).

ADMISSION REQUIREMENTS

Admission to the Great Lakes Maritime Academy requires candidates meet the following:

1. Minimum age 17, with high school diploma or GED.
2. United States Citizen.
3. Academic placement at freshman English and Intermediate Algebra level determined by minimum composite ACT score of 20, SAT score of 1440, transferable college credits or placement testing.
4. No misdemeanors, felonies or legal expungements.

Acceptance to the Great Lakes Maritime Academy is competitive, with the incoming class of 60 cadets beginning in the fall of each year. Admissions decisions are made without regard to age, sex, martial status, national origin, or ethical/racial background. Applicants may apply at www.nmc.edu/maritime to submit an online application. An application checklist is provided. If you have questions, please call the Maritime Admissions O ce at (231) 995-1213 or (231) 995-1209.

GENERAL PROGRAM REQUIREMENTS

In addition to NMC rules and regulations, Maritime cadets must comply with the rules and regulations speci ed under the “Maritime Cadet Rules and Regulations.”

DEPARTMENT OF NAVAL SCIENCE

e Department of Naval Science is sta ed by an active duty Naval O cer. e Department o ers training designed to acquaint the cadet with the mutual dependence of the Navy and the Merchant Marine in accomplishing their common objectives through the MNS 100 course. Additionally, Strategic Sealift O cer Program (SSOP) Midshipmen will receive Navy professional development training through the MNS 200 and MNS 250 courses. Upon completion of the SSOP, graduates will be commissioned as an Ensign in the United States Navy Reserve.

GRADUATION REQUIREMENTS

In addition to NMC graduation requirements, Maritime Academy cadets must:

1. Successfully complete all components of the program.
2. Pass the U.S. Coast Guard license exam (not applicable to Power Systems Program).
3. Achieve a 2.0 (76%) grade or higher in all courses.
4. Deck cadets must complete Great Lakes pilotage exams as per the Academy’s Rules and Regulations.

CURRICULUM

NMC’s Great Lakes Maritime Academy o ers three bachelor degree programs of study:

- Bachelor of Science - Maritime Technology: Deck O cer
- Bachelor of Science - Maritime Technology: Engineering O cer
- Bachelor of Science - Maritime Technology: Power Systems

Each program provides the cadet with coursework in math, physical science, humanities, and social studies in addition to the maritime curriculum.

Federal regulations require that each cadet obtain up to 300 sailing days of practical training as a cadet observer aboard ship. Sea time is arranged by the Academy and scheduled throughout the program. In addition to shipboard duties, the cadets are required to complete written assignments and sea projects for evaluation and grading. Great Lakes Maritime reserves the right to revise the program in accordance with industry needs and government agency requirements (not applicable to Power Systems program).

e following program requirements are for a high school graduate or a person without transfer credits from another institution. A condensed maritime curriculum for students with a bachelor’s degree is available.

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General Education Requirements Credits: 35
Communications: ENG 111 and ENG 112 8
Humanities: PHL 202 and one additional Group 1 Humanities course 6
Math competency: Placement into MTH 141 or higher, or completion of MTH 121 and MTH 122 7
Science: ENV 117 and PHY 105 8
Social Science: ECO 201 and ECO 202 6

Maritime Requirements 82
MDK 100 Survival at Sea 1
MDK 104 Rigging and Ship Maintenance Lab 1
MDK 106 Watchstanding I 1
MDK 112 Rules of the Nautical Road 2
MDK 121 Navigation I 3
MDK 122 Navigation I Lab 1
MDK 149 Damage Control & Safety 2
MDK 200 Ship Business & Labor Relations 3
MDK 206 Watchstanding II 1
MDK 210 Sea Project Deck 6
MDK 221 Lakes Piloting 2
MDK 222 River Piloting 3
MDK 242 Ship Stability 3
MDK 311 Sea Project Deck 6
MDK 312 Sea Project Deck 6
MDK 324 Navigation III 3
MDK 330 STCW Elementary First Aid 2
MDK 331 Electronic Navigation 3
MDK 332 Electronic Navigation Lab 1
MDK 333 Automatic Radar Plotting Aids 1
MDK 341 Ship Construction 2
MDK 345 Dry Cargo Stowage 3
MDK 404 Marine Supervisory Lab 1
MDK 411 Marine Communications 2
MDK 431 ECDIS 3
MDK 444 Cargo Systems 2
MDK 445 Liquid Cargo Stowage 2
MDK 446 Bridge Team Management 3
MDK 448 Pilot/Mate License Prep 4
MDK 454 GMDSS 3
MNG 100 Intro to Marine Engineering 1
MNG 105 Shipboard Information Systems 3
MNS 100 Naval Science 2

Occupational Specialty Requirements 3
MGT 241 Principles of Management 3

Program Requirements 120

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General Education Requirements Credits: 27-28
Communications: ENG 111 and either ENG 112 or ENG 220 7-8
Humanities: PHL 202 and any Group 1 Humanities course 6
Math competency: Placement into MTH 141 or higher, or completion of MTH 121 and MTH 122 7
Science: CHM 101 4
Social Science: PLS 101 3

Occupational Specialty Requirements 93
MDK 100 Survival at Sea 1
MDK 149 Damage Control & Safety 2
MDK 250 Stability for the Engineer 1
MDK 330 STCW Elementary First Aid 2
MDK 341 Ship Construction 2
MNG 100 Intro to Marine Engineering 1
MNG 104 Engine Systems Graphics 3
MNG 105 Shipboard Information Systems 3
MNG 110 Engineering Mechanics 3
MNG 234 Electronic Fundamentals 4
MNG 250 Unloading Systems 3
MNG 260 Maritime Machining 2
MNG 271/L Maritime Welding and Lab 2
MNG 275 Refrigeration 3
MNG 314 Diesel Engineering 7
MNG 317 Engineering Sea Project I 3
MNG 318 Engineering Sea Project II 6
MNG 319 Engineering Sea Project III 6
MNG 321 Marine Boilers 3.5
MNG 322 Marine Turbines 2.5
MNG 323 Marine Steam Lab 1
MNG 335 Electric Machines & Controls 4
MNG 336 Electric Machines & Controls Lab 2
MNG 455 Watchstanding 2
MNG 466 Engine Room Business 2
MNG 496 License Preparation Engine 2
MNS 100 Naval Science 2
GLMA Program Electives 18

Program Requirements 120

Social Sciences: PSY 101			3
Nursing Specialty Requirements		Credits:	44
HAH	100C	Informatics Essentials	1
HNR	101	Fundamentals of Nursing-Lecture	4
HNR	102	Fundamentals of Nursing-Clinical	4
HNR	106	Pharmacology I	1
HNR	107	Pharmacology II	2
HNR	125	Lifespan Nursing-Lecture	5
HNR	126	Lifespan Nursing-Clinical	5
HNR	241	Adv. Maternal Child Nursing-Lecture	3
HNR	242	Adv. Maternal Child Nursing-Clinical	2
HNR	221	Complex Patient Mgmt IA-Lecture	1.5
HNR	222	Complex Patient Mgmt IB-Lecture	1.5
HNR	248	Complex Patient Mgmt I-Clinical	4
HNR	251	Mental Health Nursing-Lecture	

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NMC Code 310

Northwestern Michigan College (NMC) and Munson Regional EMS have partnered to o er an Associate in Applied Science Degree (AAS) with a Paramedic focus. All general education classes are o ered at NMC. All paramedic classes are o ered through Munson Regional EMS. e program is designed to allow the transfer of 43 paramedic credits from Munson Regional EMS to NMC. With the completion of 18 or more general education credits as identi ed in the NMC program map, the student will earn an AAS – Paramedic.

ADMISSION REQUIREMENTS

To earn an AAS - Paramedic students must obtain a Basic EMT license and meet the clinical experience requirement. is can be completed concurrently while taking NMC classes. Students interested in pursuing a degree in Paramedic would follow the guidelines below for application to NMC and registration of classes.

1. Complete an application for admission through NMC at www.nmc.edu/admissions/future-students/
2. Request to have an o cial high school transcript sent to the Admissions O ce.
3. Schedule an orientation session after an admission letter is obtained.
4. Take the placement test or submit your ACT or SAT scores prior to orientation.
5. Meet with an academic advisor.
6. Bring placement scores to paramedic program contact at Munson Regional EMS.

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Welding is one of the foundations upon which our industrial world is built. e ability to form and join metals has been a critical need in our society for thousands of years and, with the rapid pace of technological advancement, is as in demand now as it ever was. Northwestern Michigan College is proud to o er three paths by which students will gain the competence and skill necessary to embark on a rewarding career in the welding world. Students will develop their skills through lecture and laboratory experiences in Gas Metal Arc Welding, Shielded Metal Arc Welding, Gas Tungsten Arc Welding, Flux Cored Arc Welding, Oxy-Fuel Processes, and Plasma Arc Cutting as well as additional skills that are in high demand for welding professionals. All programs incorporate industry recognized AWS Quali cation testing. No prior experience needed.

General Education Requirements Credits: 21

Communications: ENG 111 and ENG 112 8
Humanities: Any Group 1 course 3
Math competency: Placement into MTH 141 or higher, or completion of MTH 122 with a 2.0 or higher 3
Science: PHY 105 4
Social Sciences: Any Group 1 course 3

Occupational Specialty Requirements 41

DD 101 P

Aviation

AVF Aviation Flight
AVG Aviation Ground

Business

ACC Accounting
BUS Business Administration
CIT Computer Information Technology
CUL Culinary Arts
MGT Management
MKT Marketing

Communications

ASL World Language - American Sign Language
COM Communications
ENG English
FRN World Language - French
GRM World Language - German
SPN World Language - Spanish

Construction Technology

CAR Carpentry Technology
CMT Construction Management
EGY Renewable Energy
ELE Electrical Technology
HVA HVAC/R Technology
PLU Plumbing Technology

Health Occupations

HAH Allied Health
HDA Dental Assistant
HNR Nursing
HPD Health Professional Development
SRG Surgical Technology

Humanities

ART Art
AUD Audio Technology
DNC Dance
HST History
HUM Humanities
MUS Music
PHL Philosophy
VCA Visual Communications

Maritime

MDK Maritime-Deck
MNG Maritime-Engineering
MNS Naval Science

Science and Mathematics

AST Astronomy
BIO Biology
CHM Chem350 0 0 10 121.5 119.7417

Reading a Course Description

ACC Accounting

ACC 121, Accounting Principles I Division: Business

Credn <Hours: 4 Cont 0 1Hours: 4 a

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NMC.
Find it here.

ANT 201, Nautical Archaeology I Division: Social Science
This is an entry level course to the Nautical Archaeology Society Training Program and is aimed at introducing nautical archaeology to divers and non-divers, and promoting their interest in the subject. It provides the basic training in
DUFKDHRORJLFDO VXUYH\ DQG SURMHFW PDQDJHPHQW ZLWK WKH DLP RI WHDFKLQJ VWXGHQWV KRZ WR GHVLJQ SODQ DQG UXQ WKHLU RZQ ¿HOG ZRUN SURMHFWV 7KH FXUULFXOXP ZLOO EH SUHVHQWHG LQ WKH FODVVURRP DQG LQ DQ RSHQ ZDWHU VHWWLQJ RU IRUHVKRUH VLWH IRU QRQ GLYHUV LQ WKH ¿HOG *URXS FRXUVH
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: ENG 99/108 or placement into ENG 11/111 Co-Requisites: None
Q cŒ ! GRecWxW11:¥P tÞQ R 0 À Œ7UhG ™DDivision: Social Science AŽì ! Ga4 xÚíîî¬¡• ð 0 ` € P • 0 P ð @ ð @ P ` € 0Credit H04600520
178 TD [(Rec4tW1)74 (1)uisites: ENG 99/108 or placement int327004B0048000 l S Q BT /Span/La0003004C005100038 cm 0 eCID >>
Credit H045600560055005200520050000300440051004739 38 cm 0 0 m 210.847 <0055004C00460002A00C50>>BD5100460M04600

ART 132, 3-D Design Division: Humanities
An introduction to the elements of construction and production of three-dimensional design. Shape, volume, mass, and LQWHUDFWLRQ RI IRUPV DQG FRORUV ZLOO EH VWXGLHG ZLWKLQ D YDULHW\ of conceptual modes, e.g. architecture, sculpture, package design, display, etc. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ART 131; Students are encouraged to have good reading skills or seek help.

ART 151, Ceramics I Division: Humanities
This is an introductory course consisting of instruction and development of hand-building skills and basic ceramic design. Students prove critical thinking and development of technical skills by completing hand building projects WKDW LQFOXGH VHWV FRPSOH[VKDSHV PDGH IURP PXOWLSOH shapes), relief, pouring vessels, and a detailed sketchbook that includes research and design focused on each project.)XQFWLRQDO SRWWHU\ VFXOSWXUH DQG K\EULGV RI WKHVH IRUPV ZLOO be the focus of this course. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Th5an 4ang0044400510047000010003004e4200510003700000450480056004 8F00520053004 studio intensive classB0051004C2io i
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

ART 152, Ceramics II Division: Humanities
This course is an advanced studio intensive class that EXLOGV RQ WKH VNLOOV DQG NQRZOHGJH GHYHORSHG LQ &HUDPLFV , $GYDQFHG SURMHFWV XVLQJ KDQG EXLOGLQJ DQG ZKHHO WKURZLQJ

ASL 103, American Sign Language III
Division: Communications
$6/ LV D FRQWLQXDWLRQ RI $6/ - LQJ WKH HPSKDVLV RQ $6/ JUDPPDU and Deaf culture. Dialogue, short stories, narratives, and VKRUW FRQYHUVDWLRQ featured through the course. Meaningful conversational topic development is emphasized. Group 2 course.
Credit Hours: 4 Contact Hours: 4
Required Prerequisites: ASL 102 or instructor permission
Co-Requisites: None Recommended Prerequisites: You will be required to communicate in sign language; need a minimal amount of technological knowledge and skill to take advantage of outside-of -class requirements; need to be able to play a course-required DVD; and need internet access as much of the course is supported by Moodle.

ASL 104, American Sign Language IV
Division: Communications
$6/ LV D FRQWLQXDWLRQ RI $6/ 6WXGHQWV ZLOO IXUWKHU GHYHORS development, and Deaf culture. Dialogue, short stories, narratives, and short conversation, both receptive and H[SUHVVLYH conversational topic development is emphasized. Group 2 course.
Credit Hours: 4 Contact Hours: 4
Required Prerequisites: ASL 103 or instructor permission
Co-Requisites: None Recommended Prerequisites: You will be required to communicate in sign language; need a minimal amount of technological knowledge and skill to take advantage of outside-of-class requirements; need to be able to play a course-required DVD; and need internet access as much of the course is supported by Moodle.

AST Astronomy

AST 100, Observational Astronomy
Division: Science & Math
This course is an introduction to astronomy. The goal of WKLV FRXUVH LV WR DFTXDLQW -WKH VWXGHQW ZLWK WKH FRQVWHOOD tions, solar system objects and their motions, the celestial sphere concept and co-ordinate system. Stars, star clusters, QHEXODH DQG JDOD[LHV DUH DOVR VWXGLHG 6WXGHQWV ZLOO EH NHG H\H REVHUYDWLRQV DV ZHOO DV WHOHVFRSHV VSHFWURJUDSK SKRWRPHWHU DQG &&' FDPHUD WR REVHUYH DQG UHSRUW ¿QGLQJV Each session includes training in the operation of astronomical equipment. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ENG 111, MTH 23

AST 109, Planetary Astronomy Division: Science & Math
AST 109L, Planetary Astronomy Lab
Characteristics and properties of the solar system and its components are presented to students in the context of WKH KLVWRU\ RI GLVFRYHU\ 7KLV LQIRU observation and data to develop a mathematical model in the laboratory. The model is developed by incorporating equations used to compute characteristics and properties of solar system components. The model is utilized by stu- GHQWV WR HQFRXUDJH XQGHUVWDQGLQJ KDV HYROYHG WR LWV FXUUHQW VWDWH changes in values of fundamental measured properties and characteristics. Group 1 lab course.
Credit Hours: 4 Contact Hours:
Required Prerequisites: ENG 99/108
Co-Requisites: AST 109L
Recommended Prerequisites: ENG 111, MTH 111

AST 119, Astronomy Division: Science & Math
AST 119L, Astronomy Lab
History of discovery of the nature of the cosmos and its contents is the format utilized to develop understanding of the nature of stars and the universe, and the physical principles which determine its nature. These principles underlie RXU SUR¿FLHQF\ IRU SUHGLFWLRQ RI WK and our ability to make observations of our universe. The principles are analyzed by means of a student developed mathematical model incorporating the quantitative relationships derived by physicists and astronomers. Observations SURYLGH VWXGHQWV ZLWK WKH VN\ NQR for prediction of stellar characteristics. Group 1 lab course.
Credit Hours: 4 Contact Hours:
Required Prerequisites: ENG 99/108
Co-Requisites: AST 119L
Recommended Prerequisites: ENG 111, MTH 111

AT Automotive Technology

AT 100, Automotive Service Basics Division: Technical
7KLV LV WKH ¿UVW FRXUVH LQ WKH $XWR (QJLQH WKHRU\ FRROLQJ V\VWHPV DQG be covered. Bolts, micrometers and basic specialty tools are integrated into the class. Training in the use of acetylene WRUFK HTXLSPHQW ZLOO EH WDXJKW DO PRWLYH ¿HOG *URXS FRXUVH
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 110, Automotive Brake Systems Division: Technical
This course covers theory, components, nomenclature, DQG VHUYLFH RI DXWRPRWLYH EUDNH V\VWHPV LQFOXGLQJ VWDQGDUG DQG DQWL ORFN V\VWHPV standard skills to diagnose hydraulic systems, drum and GLVN EUDNHV SRZHU DVVLVW XQLWV SDUNLQJ EUDNH DQG UHPRWH FRQWURO V\VWHPV UHSDLU RI PRGHUQ $%6 V\VWHPV DORQJ ZLWK WKH SURSHU XVH RI GLDJQRVWLF WHVW HTXLSPHQW RI DVVRFLDWHG SDUWV VXFK DV ZKHHO EHDULQJV 6HUYLFH DQG UHSODFHPHQW RI EUDNH FRPSRQHQWV ZLOO DOVR EH FRYHUHG Group 2 course.
Credit Hours: Contact Hours: 7
Required Prerequisites: AT 100, may be taken concurrently
Co-Requisites: None Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 120, Automotive Electrical I Division: Technical
This course covers basic electricity, circuits, testing equipment, and solid state electronics. Group 2 course.
Credit Hours: Contact Hours: 8
Required Prerequisites: AT 100, may be taken concurrently
Co-Requisites: None Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 130, Engine Performance I Division: Technical
7KLV FRXUVH LV GHVLJQHG WR IDPLOLDUL]H VWXGHQWV ZLWK WKH theory and operation of the automotive ignition system and fuel system. Group 2 course.
Credit Hours: Contact Hours: 8
Required Prerequisites: AT 220 Co-Requisites: None Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 140, Suspension and Steering Division: Technical
7KLV FRXUVH LV GHVLJQHG WR IDPLOLDUL]H VWXGHQWV ZLWK WKH nomenclature, theory, and service techniques for the modern steering and suspension system. Group 2 course.
Credit Hours: 4 Contact Hours: 6
Required Prerequisites: AT 100, may be taken concurrently
Co-Requisites: None Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 150, Automatic Transmissions Division: Technical
7KLV FRXUVH LV GHVLJQHG WR IDPLOLDUL]H VWXGHQWV ZLWK K\GUDXOLF WKHRU\ LQWHUQDO WUDQVPLVVLRQ RSHUDWLRQ ZLOO EH FRYHUHG ic control and torque converter operation. All aspects of WUDQVPLVVLRQ RSHUDWLRQ ZLOO EH FRYHUHG LQFOXGLQJ RYHUKDXO DQG LQVWDOODWLRQ SURFHGXUHV dyno-test, and install actual failed units in the lab. Group 2 course.
Credit Hours: 6 Contact Hours: 9
Required Prerequisites: Instructor signature required.
Co-Requisites: None Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 160, Engine Repair Division: Technical
This course covers the theory, construction, and repair of the PRVW FRPPRQ JDVROLQH DQG GLHVHO HQJLQHV 7KLV LQFOXGHV use of compression leakage and test equipment, precision measuring tools, special engine tools and valve grinding equipment. Group 2 course.
Credit Hours: Contact Hours: 8
Required Prerequisites: AT 100, may be taken concurrently
Co-Requisites: None Recommended Prerequisites: ENG 111 and completion of MTH 08 or placement into MTH 23.

AT 170, Heating and Air Conditioning Division: Technical
7KLV FRXUVH FRYHUV WKH SULQFLSOHV phasis on the particular problems of application to automotive air conditioning. The course also covers automotive KHDWLQJ V\VWHPV ZKLFK LQFOXGH KHDWHU vent systems and the electronic controls for them. The student will learn how to use refrigeration equipment and will have hands-on that equipment. Group 2 course.
Credit Hours: 4 Contact Hours: 6
Required Prerequisites: AT 120 Co-Requisites: None Recommended Prerequisites: None

AT 180, Manual Drivetrain and Axles Division: Technical
This course covers the basic operating principles, construction WLRQ SRZHU ÀRZ DQG UHSDLU RI FOXWFK DQG GULYH VKDIWV 'L‡HUHQWLDO WKHRU\ covered including ring and pinion replacement and set up. Group 2 course.
Credit Hours: 6 Contact Hours: 9
Required Prerequisites: AT 110, may be taken concurrently
Co-Requisites: None Recommended Prerequisites: None

AT 200, Service Department Management
Division: Technical
7KLV FRXUVH LV GHVLJQHG WR DFTXDLQW D FDUHHU LQ WKH DXWRPRWLYH VHUYLFH UHSRQVLELOLWLHV TXDOL¿FDWLRQV GHSDUWPHQW PDQDJHU 7KH VWXGHQW ZLOO organization, types of service, and how it returns by customer relations, and instruction in the use of the service manual. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

AT 210, Hybrid Technology Division: Technical
7KLV FRXUVH SURYLGHV D FRPSUHKHQVLYH the operating principles, maintenance, and service of hybrid electric vehicles. Group 2 course.
Credit Hours: Contact Hours: 8
Required Prerequisites: $7 RU &HUWL¿FDWLRQ L and Engine Tune Up Co-Requisites: None
Recommended Prerequisites: None

Course Descriptions

AT 220, Automotive Electrical II Division: Technical
7KLV FRXUVH FRYHUV DGYDQFHG DXWRPRWLYH HOHFWURQLFV ZLWK the emphasis placed on operation, troubleshooting, and
UHSDLU RI OLJKWLQJ JDXJHV DFFHVVRULHV DQG SRZHU RSWLRQ FLUFXLWV %RG\ KDUGZDUH LV FRYHUHG LQFOXGLQJ GLDJQRVWLFV RI PRGHUQ V\VWHPV ZLWK ERG\ FRQWURO PRGXOHV *URXS FRXUVH
Credit Hours: Contact Hours: 8
Required Prerequisites: AT 120 Co-Requisites: None
Recommended Prerequisites: None

AVG 240, Corporate Aviation Ground Division: Aviation

BIO 108, Plant Biology Division: Science & Math
BIO 108L, Plant Biology Lab
,Q WKLV FODVV ZH ZLOO H[DPLQH VRPH RI WKH EDVLF SULQFLSOHV RI ERWDQLFDO VFLHQWL¿F PHWKRG ELRORJ\ RI FHOOV DQG WLVVXHV DQG WKH VWUXFWXUH ZLOO EH RQ SODQWV JURZWK DQG LWV UHJXODWLRQ)LHOG DQG ODERUDWRU\ H[HUFLVHV DV ZHOO DV H[SHULPHQWV LQ WKH JUHHQKRXVH ZLOO DOORZ WKH VWXGHQW WR REVHUYH WKHVH principles, and practice the skills required to cultivate and propagate plants. Group 1 lab course.
Credit Hours: 4 Contact Hours:
Required Prerequisites: None Co-Requisites: BIO 108L
Recommended Prerequisites: ENG 111, MTH 23

BIO 110, Essential Biology Division: Science & Math
BIO 110L, Essential Biology Lab
(VVHQWLDO %LRORJ\ LV JHDUHG WRZDUG WKH QRQ PDMRU 7KH FRXUVH ZLOO FRYHU EURDG DUHDV RI ELRORJ\ HQJDJH WKH VWXGHQW LQ KRZ ELRORJ\ UHODWHV WR WKHLU RZQ OLIH DQG KRZ VFLHQFH DQG society interact. Core concepts covered include: Evolution, 6WUXFWXUH DQG)XQFWLRQ ,QIRUPDWLRQ)ORZ ([FKDQJH DQG 6WRUDJH 3DWKZD\V DQG 7UDQVIRUPDWLRQV RI (QHUJ\ DQG 0DW WHU DQG /LYLQJ 6\VWHPV *URXS ODE FRXUVH
Credit Hours: 4 Contact Hours:
Required Prerequisites: None Co-Requisites: BIO 110L
Recommended Prerequisites: ENG 111, MTH 23

BIO 115, Cell,Plant & Ecosystem Biology
BIO 115L, Cell, Plant, Ecosystem Bio Lab
Division: Science & Math
An introduction to the fundamental concepts of biology, including an investigation of the major kingdoms of life, classi¿FDWLRQ HFRORJ\ ERWDQ\ FHOOXODU DQDWRP\ DQG ELRFKHPLVWU\ DNA structure and function, genetic engineering, cloning and VWHP FHOO WHFKQRORJLHV /DERUDWRU\ LQFOXGHV ¿HOG ZRUN DQG LQYHVWLJDWLYH H[HUFLVHV ZKLFK LOOXVWUDWH OHFWXUH WRSLFV *URXS 1 lab course.
Credit Hours: 4 Contact Hours: 6
Required Prerequisites: None Co-Requisites: BIO 115L
Recommended Prerequisites: ENG 111, MTH 111

BIO 116, Genetic, Evolution, Animal Bio
BIO 116L, Genetic, Evolu, Animal Bio Lab
Division: Science & Math
The lecture and laboratory portions of this course focus on cell division, classical genetics, evolution and phylogeny as well as the structure and function of animals. Also, the course covers ID 2066 >>
principles of vertebrate and invertebrate animals.

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BIO 220, Nutrition in Human Health
Division: Science & Math
This course is an exploration of the fundamentals of nutrition: energy nutrients, vitamins and minerals. Function and VRXUFHV RI HDFK LV SUHVHQWHG DV DQ LQWHJUDWHG SDUW RI KXPDQ PDLQWDLQLQJ KHDOWK 6WXGHQWV FRPSOHWH WKHLU RZQ)RRG ,QWDNH Record and use this information throughout the semester so as to better understand human nutrition. In addition, study is PDGH RI WKH UROH QXWULWLRQ DORQJ ZLWK RWKHU OLIHVW\OHV SOD\V LQ the prevention and protection from disease. Discussion also LQFOXGHV WKH UHODWLRQVKLS EHWZHHQ QXWULWLRQ DQG ¿WQHVV *URXS 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ENG 111, MTH 111, and completion of any 100-level BIO course.

BIO 227, Human Anatomy & Physiology I
BIO 227L, Human Anatomy & Phys I Lab
Division: Science & Math
7KLV FRXUVH ZLOO LQFOXGH DQ LQWURGXFWLRQ WR FHOOV KLVWRORJ\ ELRFKHPLVWU\ DQG KRPHRVWDVLV ,Q DGGLWLRQ WKH IROORZLQJ V\VWHPV ZLOO EH GLVFXVVHG LQWHJXPHQWDU\ VNHOHWDO PXVFOH QHUYRXV DQG VSHFLDO VHQVHV /HFWXUH ZLOO EH DFFRPSDQLHG E\ ODE ZRUN DQG DSSOLFDWLRQV ZKLFK ZLOO VWUHVV WKH DQDWRP\ KLVWRORJ\ DQG function of these organ systems. Group 1 lab course.
Credit Hours: 4 Contact Hours: 6
Required Prerequisites: MTH 111; ENG 11/111 or ENG 111 may be taken concurrently Co-Requisites: BIO 227L
Recommended Prerequisites: CHM 101, HAH 101, and completion of any 100-level BIO course. It is highly recommended that students have college level reading skills. Students enrolling in BIO 227 who have not completed these requirements should plan on additional study time.

BIO 228, Human Anatomy & Physiology II
BIO 228L, Human Anatomy & Phys II Lab
Division: Science & Math
7KLV LV WKH VHFRQG SDUW RI D WZR VHPHVWHU FRXUVH 7KH VHFRQG VHPHVWHU ZLOO FRQWLQXH PDMRU V\VWHPV LQ WKH ERG\ LQFOXGLQJ the endocrine system, cardiovascular system, lymphatic system, respiratory system, digestive system, metabolism, urinary V\VWHP ÀXLG EDODQFH UHSURGXFWLRQ DQG LQKHULWDQFH /HFWXUH ZLOO EH DFFRPSDQLHG E\ ODE ZRUN ZKLFK ZLOO VWUHVV WKH DQDWRP\ and histology of these organ systems. Group 1 lab course.
Credit Hours: 4 Contact Hours: 6
Required Prerequisites: BIO 227, BIO 227L, MTH 111; ENG 11/111 or ENG 111 Co-Requisites: BIO 228L
Recommended Prerequisites: None

BIO 240, Normal and Clinical Nutrition
Division: Science & Math
1XWULWLRQ LV FRQVLGHUHG IURP D VWURQJ ELRORJLFDO SRLQW RI YLHZ 'LVFXVVLRQV ZLOO LQFOXGH D EULHI RYHUYLHZ RI SULQFLSOHV RI QRUPDO QXWULWLRQ DQG WKHQ ZLOO SURFHHG WR KRZ WKHVH SULQFLSOHV DSSO\ WR FDXVH DQG WUHDWPHQW RI VSHFL¿F GLVHDVH VWDWHV DQG the nutrition care process required. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: MTH 23 Co-Requisites: None Recommended Prerequisites: BIO 227, ENG 111, MTH 111

BIO 255, Pathophysiology Division: Science & Math
This course covers the etiology, progression, and treatment of disease in the human body. Cellular and tissue structure and function are presented as an integrated part of human maintaining. Students complete their own Food Intake

BUS 155, Interpersonal Communications
'LYLVLRQ %XVLQHVV 7R EH ZHOO SUHSDUHG WR HQWHU WKH VW FHQWXU\ LW ZLOO EH PDQGDWRU\ WKDW VWXGHQWV KDYH VWUDWH H‡HFWLYH KXPDQ UHODWLRQV ZRUNIRUFH LQ DQ\ ¿HOG ZLOO QHHG WR GHYHORS FXVWRPHU VHUYLFH VNLOOV 7KH JOREDO ZRUNSODFH ZLOO UHTXLUH competence in interpersonal or "soft" skills. Excellent customer service and relationship building skills are a necessary component of overall business communication. Topics LQFOXGH FRPPXQLFDWLRQ DQG LGHQWLW\ QLFDWLRQ FOLPDWHV DQG KRZ WR EXLOG UHODWLRQVKLSV ZLWK H[WHUQDO DQG course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ENG 11/111 minimum placement

BUS 231, Professional Communications
Division: Business Communicating professionally is a critical VNLOO LQ WRGD\ V ZRUOG 7KLV-FRXUVH LV GHVLJQHG WR KHOS VWX dents understand communication theory and its application LQ WKHLU SURIHVVLRQDO OLYHV 6WXGHQWV ZLOO GHYHORS H‡HFWLYH ZULWLQJ VNLOOV E\ DQDO\]LQJ FRPSOH[RUJD nizing thoughts logically, and communicating those ideas FRQFLVHO\ LQ YHUEDO DQG ZULWWHQ IRUP 6WXGHQWV ZLOO DOVR SUDF WLFH H‡HFWLYH OLVWHQLQJ VNLOOV D VXFFHVVIXO MRE VHDUFK DQG XVH WHFKQRORJ\ LQ WKH ZRUN communication problems. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: CIT 100, ENG 111 minimum placement

BUS 261, Business Law I Division: Business
7KLV FRXUVH LV D VWXG\ RI WKH 8 6 GHJDO V\VWHP DQG VSHFL¿F techniques of legal decision-making. Topics include the MXGLFLDO V\VWHP WRUWV FRQWUDFWV DQG FULPLQDO ODZ course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ENG 111 minimum placement

BUS 290, Business Admin Internship Division: Business
This course is required for the Associate of Applied Science degree in Business Administration. The objective of the internship is to assess the Business Administration program outcomes and to provide an on-the-job experience for the student pursuing a career in business. At the end of the semester students take a third party assessment to measure WKHLU NQRZOHGJH RI EXVLQHVV RSHUDW QL]DWLRQ DQG EXVLQHVV SURFHGXUHV Hours over the semester in a supervised training experience. Coordination is needed throughout the semester for intern-VKLS VXSSRUW IHHGEDFN UHYLHZ RI SU GRFXPHQWV DQG DQ LQWHUQVKLS H[W
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: 30 credit hours towards program requirements and a 2.0 GPA in occupational courses.
Co-Requisites: None
Recommended Prerequisites: None

CAR Carpentry

CAR 101, Introduction to Carpentry
Division: Construction Technology
This course provides an introduction to residential carpentry. Through structured classroom and hands-on skill build-ing, the student will learn safety procedures, use of hand and power tools, and fasteners and adhesives. Students will XQGHUVWDQG WKH FRPSRQHQWV RI LQJ WKH VWXGHQW ZLOO QHDUQ DERXW EXLOGLQJ PDWHULDOV IDVWHQHUV DQG WRROV LQWURGXFWLRQ WR SULQW UHDG 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into MTH 23 or better, or co-enrollment in the recommended developmental math course. Placement into ENG 11/111 or higher, or co-enrollment in the recommended English course.

CAR 102, Intro to Woodworking
Division: Construction Technology
This course is for the student that has a desire to experi-HQFH ZRRGZRUNLQJ LQ WKH DUHD RI EDV Techniques in the usage and maintaining of basic hand and SRZHU WRROV XQGHUVWDQGLQJ RI KRZ D‡HFW GHVLJQ RI DQ DVVHPEO\ DSSOLF DGKHVLYHV DQG IDVWHQHUV LQ WKH ZR WKLV FODVV HVWDEOLVKHV D IRXQGDWLO build simple furniture and cabinets. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
5HFRPPHQGHG 3UHUHTXLVLWHV 6WXGHQ from having competency up to MTH 111.

CAR 103, Construction Blueprint Reading
Division: Construction Technology
6WXGHQWV ZLOO OHDUQ WKH VNLOOV 1C800530053004F00300510047000300580051004700030053004F00300510048000 F4 Required
FRQVWUXFWLRQ GUDZLQJV DV ZHOO DV DQDO\]H DQG LQWHUSUHW LQ GLQJ RI PDQ
ufacturers' literature of component parts used in buildings.
Both commercial and residential construction materials and
GUDZLQJV DUH VWXGLHG 3UREOHPV HQFRXQWHUHG LQ GHVLJQ GH
velopment such as site limitations, zoning restrictions, utility
DYDLODELOLW\ FRRUGLQDWLRQ RI SURGXFW VSHFL¿FDWLRQV DGKHU
ence to building codes and life safety are explored. Group 2
course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into MTH 111 or
co-enrollment in MTH 08 or MTH 23, placement into ENG
111 or co-enrollment in ENG 99/108. 11<3005300550052005600030058005100470003005800510047000300530 4F00030051004800099/1025, Interior Construction Division: Construction TechnologyThro
1C800530053004F00300510047000300580051004700030053004F00300510048000 Credit Hours: 3 Contact Hours: 4
1VDQGDUG (QJOLVK FRXUVH

CHM Chemistry

1those of the advanced beginner and intermediate skill abiliTT1j EMC /pan <</Lang (en-US)/MCID
Through structured classroompand hands-on skill build(u),
Re500044005700480055004C0054004F00580EC8005100460040005600F00030005005200560
Through structured classroompand hands-on skill build(u),
1C800530053004FLa5C0056004400n7004C00520052005 [illegible]
CHM 101, Introductory Chemistry
CHM 101L, Introductory Chemistry LabDivision: Science & Math
A one-semester chemistry course for the non-science major
explor(u) the language, conceptspand methods of chemistry. Topics in
QG DF¥Ap P@ `€0jQHPLVWU\ <QH /¥PP ZUWC
tivepand analytical experiments, focus(u) on measurement,
physical and chemical properties of materials, acidspand bases, labora
better. Co-Requisites: CHM 101L
Recommended Prerequisites: ENG 11, The ability to work algebraic problems involv(u
additional study time.
CHM 150, General Chemistry I Division: Science & MathCHM 150L,

Course Descriptions

CIT 110, Programming Logic and Design
Division: Business
The student is introduced to topics in programming logic and design in preparation for subsequent programming courses. The course lecture material is presented via readings and YLGHRV RXWVLGH RI FODVV ZLWK LQ FODVV GLVFXVVLRQV focused on coding, testing, debugging, and documenting applications. Good coding practices and simple design pattern are emphasized. Topics covered include: Simple Data Types, Control Structures, Decisions and Conditionals, $UUD\V /LVWV 0HWKRGV)XQFWLRQV 3 Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

&,7 0LFURVRIW 2ˆFH Division: Business
7KLV FRXUVH LV GHVLJQHG WR SURYLGH GXFWLRQ WR ZRUG SURFHVVLQJ XVLQJ 0LFURVRIW :RUG 6NLOOV VWXGHQWV ZLOO OHDUQ LQFOXGH SUHSDULQJ GRFXPHQWV IRUPDWWLQJ characters and paragraphs, customizing paragraphs, and IRUPDWWLQJ SDJHV 7KLV FRXUVH UHTXLUHV 06 2ˆFH RQ D :LQGRZV FRPSXWHU RU RQ D 0DF ZLWK D :LQGRZV SDUWLWLRQ 7KLV VRIWZDUH LV DYDLODEOH DW FDPSXV FRPSXWHU ODEV *URXS 2 course.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

&,7 0LFURVRIW 2ˆFH :RUG Division: Business
7KLV FRXUVH WHDFKHV VWXGHQWV KRZ WR XVH 0LFURVRIW :RUG DQG SUHSDUHV WKHP WR SDVV WKH 0LFURVRIW 2ˆFH 6SHFLDOLVW 026 :RUG FHUWL¿FDWLRQ H[DP 6NLOOV VWXGHQWV ZLOO OHDUQ LQ clude navigating in a document, customizing and formatting text, paragraphs and pages, inserting objects, maintaining DQG SURR¿QJ GRFXPHQWV SHUIRUPLQJ PDLO PHUJH RSHUDWLRQV document sharing and management, tracking and referenc- ing documents, and managing macros and forms. Students HQUROOLQJ LQ WKLV FRXUVH ZLOO WDNH WKH 0LFURVRIW 2ˆFH FHUWL ¿FDWLRQ H[DP 7KLV FRXUVH UHTXLUHV 0LFURVRIW 2ˆFH RQ D :LQGRZV FRPSXWHU RU RQ D 0DF ZLWK D :LQGRZV SDUWLWLRQ 7KLV VRIWZDUH LV DYDLODEOH DW FDPSXV FRPSXWHU ODEV *URXS 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

CIT 122A, Computer & Internet Basics I
Division: Business
6WXGHQWV ZLOO OHDUQ WKH HVVHQWLDO FRPSXWHU ZLWK WKH 0LFURVRIW :LQGRZ 7KH VWXGHQW ZLOO OHDUQ WR LQWHUDFW LPSRUWDQFH RI ¿OH DQG IROGHU PDLQW includes introductions to the World Wide Web, e-mail and VHDUFKLQJ 6WXGHQWV FRPSOHWLQJ WKLV UHTXLUHG IRU RQOLQH FRXUVHV 7KLV F Credit Hours: 1 Contact Hours: 1
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

&,7 0LFURVRIW 2ˆFH 3RZHU3RLQW Division: Business
7KLV FRXUVH LV GHVLJQHG WR SURYLGH VWXGHQWV ZLWK WKH VNLOOV DQG XQGHUVWDQGLQJ RI 0LFURVRIW 3RZHU3RLQW VRIWZDUH VWXGHQWV ZLOO OHDUQ WR FUHDWH SUHVHQWDWLRQV XVLQJ WHPSODWHV DQG WKHPHV LQVHUW DQG IRUPDW WH[W LPDJHV DQG RWKHU REMHFWV DSSO\ DQLPDWLRQV DQG WUDQVLWLRQV DQG SUHSDUH WR GHOLYHU DQG VKDUH SUHVHQWDWLRQV 7KLV FRXUVH UHTXLUHV 0LFURVRIW 2ˆFH RQ D :LQGRZV FRPSXWHU RU RQ D 0DF ZLWK D :LQGRZV SDUWLWLRQ 7KLV VRIWZDUH LV DYDLODEOH DW FDPSXV FRPSXWHU ODEV *URXS 2 course.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

&,7 0LFURVRIW 2ˆFH ([FHO Division: Business
7KLV FRXUVH GHDOV ZLWK D FRPSUHKHQVLYH VWXG\ RI 0LFURVRIW
2ˆFH ([FHO VSUHDGVKHHW VRIWZÞUH DQG WKH EXVLQHVV DSSOL
FDWLRQV ZKLFK FDQ EH FUHDWHG DQG XVHG ZLWK WKH VRIWZDUH
7KH HQWU\ RI GDWD ZLWK GL‡HUHQW IRUPDWV IRUPXOD FUHDWLRQV

CIT 233, Project Management Division: Business
This course is intended for CIT students and business
SURIHVVLRQDOV ZKR QHHG WR PDQDJH SURMHFW DFWLYLWLHV RU
resources on time, on budget, and according to performance
standards. Students use a variety of project management
tools to schedule tasks, and monitor resources, cost, and
project progress. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

CIT 240, Network Security Management
Division: Business
7KLV FRXUVH FRYHUV WKH NQRZOHGJH DQG VNLOOV UHTXLUHG WR LQ
VWDOO DQG FRQ¿JXUH V\VWHPV WR VHFXUH DSSOLFDWLRQV QHWZRUNV
DQG GHYLFHV ZKLOH VXSSRUWLQJ WKH SULQFLSOHV RI FRQ¿GHQWLDOLW\

CIT 257, Linux Administration II Division: Business
,Q WKLV FRXUVH VWXGHQWV ZLOO WDNH DQ LQ GHSWK ORRN DW /LQX[
focusing on proper installation, command line usage, and
DGPLQLVWUDWLRQ RI WKH RSHUDWLQJ V\VWHP 6WXGHQWV ZLOO H[DP
ine various server technologies, including BASH scripting,
X11, display managers, localization settings, printing, and
VHFXULW\ ([SORUDWLRQ ZLOO WDNH WKH IRUP RI D SUDFWLFDO KDQGV
RQ DSSURDFK XVLQJ D PL[RI KDQGV RQ SURMHFWV DV ZHOO DV
ZHE UHVRXUFHV 7KLV FRXUVH ZLOO SUHSDUH VWXGHQWV IRU WKH
VHFRQG &RPS7,$ /LQX[H[DP *URXS FRXUVH
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: CIT 256 Co-Requisites: None
Recommended Prerequisites: None

CIT 260, Cisco Internetworking III Division: Business
7KLV FRXUVH LQ FRQMXQFWLRQ ZLWK &,7 &,7 DQG &,7
SUHSDUHV WKH VWXGHQW IRU WKH &LVFR &&1$ ([DP &LVFR
&HUWL¿HG 1HWZRUN $VVRFLDWH 'HVFULEHV WKH DUFKLWHFWXUH
FRPSRQHQWV DQG RSHUDWLRQV RI URXWHUV DQG VZLWFKHV LQ D
ODUJH DQG FRPSOH[QHWZRUN 6WXGHQWV OHDUQ KRZ WR FRQ¿JXUH
URXWHUV DQG VZLWFKHV IRU DGYDQFHG IXQFWLRQDOLW\ 6WXGHQWV ZLOO
FRQ¿JXUH DQG WURXEOHVKRRW URXWHUV DQG VZLWFKHV DQG UHVROYH
FRPPRQ LVVXHV ZLWK 263) (,*53 673 DQG 973 LQ ,3Y
DQG ,3Y QHWZRUNV 7KLV FRXUVH XWLOL]HV WKH &LVFR 1HWZRUN
LQJ $FDGHP\ &&1$ 5RXWLQJ 6ZLWFKLQJ 6FDOLQJ 1HW
ZRUNV FXUULFXOXP DQG LQWHJUDWHV RQOLQH FXUULFXOXP FODVV
room activities, hands-on lab exercises and group projects.
Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: CIT 161 Co-Requisites: None
Recommended Prerequisites: None

CIT 261, Cisco Internetworking IV Division: Business
7KLV FRXUVH LQ FRQMXQFWLRQ ZLWK &,7 &,7 DQG &,7
260, provides the necessary prepaln <<004C0052041A-600460058e /Span <000F0003kr0700527l92 >>Bmk1cn <000F0003kr0700527

CJ C

COM Communications

CUL 111, Professional Cookery Division: Business
An intensive study of foods and cooking, this course exposes the student to commercial equipment, quality food production, and professional presentation. It provides the chef training student with the basic knowledge and skills for the preparation of foods in a commercial operation. Basic cooking terminology, methods and procedures are introduced. The course also includes kitchen safety and sanitation, knife and equipment identification, and the preparation of basic stocks, soups, and mother sauces, meats, poultry and seafood and their presentation. Group 2 course.
Credit Hours: 4 Contact Hours: 8
Required Prerequisites: CUL 110, may be taken concurrently
Co-Requisites: None Recommended Prerequisites: Placement into ENG 99/108.

CUL 118, Introduction to Baking Division: Business
This course is designed for students seeking a career in Culinary Arts. In this intensive study of fundamental baking techniques, students will learn the basic operation and production. This course covers fundamental pastry and dessert recipes as well as breads and yeast dough. Also included are tortes, pies, tarts, and other desserts. Group 2 course.
Credit Hours: 4 Contact Hours: 8
Required Prerequisites: CUL 110, may be taken concurrently and placement into ENG 99/108 Co-Requisites: None
Recommended Prerequisites: None

CUL 190, Culinary Internship Division: Business
Apprenticeship with professional chefs in commercial culinary work experience. Students are encouraged to contact the internship coordinator at least two months before they are requesting placement. Culinary internships require a minimum of 80 hours of work under the direction of a chef. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: CUL 110, CUL 111, CUL 118, CUL 121, Culinary Math, Sanitation, and Safety
Recommended Prerequisites: None

CUL 210, Nutrition for Culinary Arts Division: Business
This course is designed for students seeking a career in culinary arts. Healthy eating is attracting more attention as consumers become more health conscious. This course presents the principles of healthy food preparation in the context of professional food preparation. Various ingredients and their effect on good nutrition, spa cuisine, planning healthy menus and alternative eating styles are discussed. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

CUL 211, Menu Planning and Purchasing
Division: Business
This course presents the student with the menu as the center of the food service operation. Menu theme is the driver for food, non-food, and equipment purchases. Understanding of this complex item is vital to anyone involved in food service. This course is designed to familiarize the student with the menu as a marketing tool ranging from market research to the physical layout of the document. Various types of menus are covered. Table d'Hote and à la Carte menus are explored for their appropriateness for different operations. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: CUL 110, CUL 111 Co-Requisites: None Recommended Prerequisites: Placement into ENG 99/108
CUL 213, World Cuisine Division: Business
This course is designed for students seeking a career in culinary arts. Students will learn the basic techniques of the chef. It comprises the study, preparation and presentation of foods and cooking methods from selected countries. These countries have been selected based on their current popularity, availability of ingredients, and their influence on the food industry. Students will develop knowledge and basic understanding of ethnic cooking including the cooking styles of Italy, France, Mexico, China, and various other Asian and American regions. In the process of learning these multi-national dishes, the student develops basic culinary skills and techniques for preparing ethnic foods. Group 2 course.
Credit Hours: 6 Contact Hours: 12
Required Prerequisites: CUL 110, CUL 111 Co-Requisites: None Recommended Prerequisites: None

NMC.
Find it here.

CUL 295, Contemporary Service & Cuisine
Division: Business
This course focuses on practical hands-on training. Students rotate through the front-of-the-house and the restaurant kitchen in this intensive semester-long course. Front-of-WKH KRXVH VWXGHQWV OHDUQ YDULRXV VW\OHV RI WDEOH ZLQH DQG beverage service. Menu merchandising is stressed throughout the course. Guest relations and timing of service are also emphasized as advanced students serve lunch to guests LQ /REGHOO V WKH *UHDW /DNHV &XOLQDU\ ,QVWLWXWH V WHDFKLQJ restaurant. Heart-of-the-house students learn classical food preparation preparing designated menu items. Other areas covered include recipe construction and costing, the use and care of equipment, the pressure of a la carte preparation DQG VHUY ÃWK@ p0

DNC Dance

DNC 101, Beg. Dance: An Exploration
Division: Humanities
7KLV FRXUVH ZLOO LQWURGXFH WKH PDMRU GLVFLSOLQHV RI GDQFH

DNC 135, Bikram Yoga I Division: Humanities
7KLV LV 2ULJLQDO +RW <RJD GHJUHHV SXUH SRZHUIXO authentic, unchanged, taught exactly as Hatha Yoga Master Bikram Choudhury intends it to be taught. 26 poses, 2 breathing exercises, 90 minutes, plus heat. Prerequisite: good heart health and not pregnant. Group 2 course. Credit Hours: 1 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

DNC 136, Bikram Yoga II Division: Humanities
$ FRQWLQXDWLRQ RI WKH RULJLQDO +RW <RJD GHJUHHV SXUH SRZHUIXO DXWKHQWLF XQFKDQJHG WDXJKW H[DFWO\ DV +DWKD Yoga Master Bikram Choudhury intends it to be taught. 26 poses, 2 breathing exercises, 90 minutes, plus heat. Prerequisite: good heart health and not pregnant. Group 2 course. Credit Hours: 1 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

ECE Early Childhood Education

ECE 101, Early Childhood Education
Division: Social Science
7KLV FRXUVH IDPLOLDUL]HV VWXGHQWV ZLWK WKH KLVWRU\ DQG 7KLV FRXUVH IDPLOLDUL]HV VWXGHQWV ZLWK WKH KLVWRU\ DQG SUHVHQW state of early childhood education, from birth to 10 years RI DJH (DFK DJH JURXS LQIDQW WRGGOHU SUHVFKRROHU DQG school-age) receives a minimum of 10 classroom hours of IRFXVHG VWXG\ UHODWHG WR WKH FRXUVH FRQWHQW $Q RYHUYLHZ RI child development theories is presented in the context of the role of the educator/caregiver. Resources and careers, and contemporary issues such as school readiness and exploration of various education philosophies are also included. Early Education environment observations and a personal

ECE 206, Infant Toddler Care Curriculum
Division: Social Science
This hybrid course provides an in-depth study of the physical, cognitive, social and emotional development and OHDUQLQJ RI WKH LQIDQW DQG WRGGOHU DQG WKH DWWDFKPHQW DQG ERQGLQJ DQG KRZ RPHQ DQG ODWHU VRFLDO DQG DFDGHPLF develop skills to build a respectful and responsive curriculum DQG OHDUQLQJ HQYLURQPHQW 7KH\ Z LOO DOVR SUDFWLFH PHWKRGV ZLWK LQIDQWV DQG WRGGOHUV Course includes time in class and hours outside class doing REVHUYDWLRQ DQG DSSOLFDEOH LQ V WXGHQW Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ECE 101, placement into ENG 11/111.

ECE 220, Early Education Administration
Division: Social Science
This course provides information and experiences to gain NQRZOHGJH LQ SURJUDP GPLQLVWUDWLRQ DQG SROLFLHV SURFHGXUHV DQG VWXGHQW icies, implementing and evaluating programs, assessing, recording and reporting children's progress, scheduling ac- WLYLWLHV SURPRWLQJ JRRG VXSSRUWLYH and ministrative organization, leading and managing personnel, ¿QDQFLQJ DQG EXGJHWLQJ DQG FRQWUROOLQJ Course instruction is based on the quality principles/standards required by Child Development Associate Credential and the National Association of the Education of the Young &KLOG 1$(<& *URXS FRXUVH
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ECE 101, placement into ENG 11/111.

ECE 230, Early Literacy and Learning
Division: Social Science
THKLV FRXUVH LV GHVLJQHG WR recognize and implement appropriate environmental strategies that support early literacy development and appropriate early H[SHULHQFHV ZLWK ERRNV DQG ZULWLQJ IRU LQIDQWV WRGGOHUV and preschoolers. Each age group receives a minimum of FODVVURRP KRXUV RI IRFXVHG VWXG\ UHODWHG WR WKH FRXUVH content. Emphasis is placed on speaking and listening, as ZHOO DV UHDGLQJ DQG ZULWLQJ UHDGLQHVV 7KLV JURXS RI VNLOOV includes expressive and receptive language, concepts of SULQW DQG DSSUHFLDWLRQ RI OLWHUDWXUH HPHUJHQW ZULWLQJ OHWWHU NQRZOHGJH DQG SKRQRORJLFDO DZDUHQHVV 8SRQ FRPSOHWLRQ RI WKH FRXUVH VWXGHQWV ZLOO EH DEOH WR VHOHFW SODQ LPSOH ment, and evaluate appropriate early literacy experiences.
Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ECE 101, placement into ENG 11/111.

ECE 240, Integrated Arts in Curriculum
Division: Social Science
7KH LQWHJUDWLRQ RI WKH DUWV LQ HDU and implemented for children birth to 10 years of age. Each DHJ JURXS Z LOO DEW DLQ DW OHDVW receive a minimum of 10 classroom hours of guided study GHDFWLYLWLHV WR VWLPXODWH WKH FUHDWLYH integration of studio art, music, dance and drama in early childhood curriculum planning, practice and implementation. 7K
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ECE 101, ECE 204, and placement into ENG 11/111.

ECE 290A-C, Early Education Internship
Division: Social Science
Internship placement in a daycare, nursery school, early elementary grades in grade school or other WKH VWXGHQW ZLOO KDYH WKH RSSRUWX XDO DQG DVVLVW ZLWK SODQQLQJ IRU 7KH VWXGHQW ZLOO EH VXSHUYLVHG directly by a Child Development Associate Teacher. Each credit hour is equivalent to 12 hours of internship hours and can be divided over more than RQH VHPHVWHU $W OHDVW FUHGLW KR must be earned in a Model Learning Environment. Group 2 course.
Credit Hours: 1-4 Contact Hours: 1-4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ECE 101

ECO Economics

ECO 201, Principles of Macroeconomics
Division: Social Science
7KLV SULQFLSOHV OHYHO FRXUVH SUHVHQ DQG DQDO\VLV RI PDFURHFRQRPLF WKHR applies them to the contemporary economic issues, prob- OHPV DQG SROLFLHV LQ WKH 8QLWHG 6W 7RSLFV LQFOXGH WKH QDWXUH DQG VRXUFHV RI PDFURHFRQRPLF JURZWK XQHPSOR DQG QDWLRQDO GHEW XQHPSOR\PHQW UDWHV HFRQRPLF JURZWK DQG -PRQHWDU

ECO 202, Principles of Microeconomics
Division: Social Science
This principles level course analyzes microeconomic theory DQG FRQFHSWV DQG DSSOLHV WKHP WR HFRQRPLF issues, problems, and policies. Topics include supply and GHPDQG DQDO\VLV SURGXFWLYLW\ DQG WKH ¿UP V FRVWV RI SURGXF tion, price and output determination under various market structures, government interventions in markets, factor allocation and pricing, and international trade. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: MTH 23, placement into ENG 111. It is recommended that students take ECO 201 before ECO 202.

('8 (GXFDWLRQ

EDU 100, College Success Division: Social Science
7KLV FRXUVH LV GHVLJQHG WR SURYLGH VWXGHQWV WKH HJLHV QHFHVVDU\ WR VXFFHHG LQ FROOHJH DQG EH[DPLQH WKH FKDUDFWHULVWLFV RI VXFFHVVIXO VWXGHQWV DV ZHOO DV OHDUQ VWUDWHJLHV IRU WDNLQJ JUHDWHU UHVSRQVLELOLW\ IRU WKHLU RZQ OHDUQLQJ $GGLWLRQDOO\ WKH FRXUVH IRFXVHV RQ GHYHORSLQJ JURZWK PLQGVHWV DQG PRUH H‡HFWLYH WLPH PDQDJHPHQW VNLOOV DV ZHOO DV KHOS them discover and revise limiting beliefs and self-defeating EHKDYLRUV 3UDFWLFDO VNLOOV ZLOO LQFOXGH D YDULHW\ RI QRWH WDNLQJ DQG VWXG\ VWUDWHJLHV DV ZHOO DV FRQ¿GHQW DQG H‡HFWLYH WHVW preparation. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

EDU 101, Introduction to Teaching
Division: Social Science
7KLV FRXUVH ZLOO VHUYH DV DQ LQWURGXFWLRQ WR WHDFKLQJ DV D FDUHHU ,W ZLOO SURYLGH DQ RYHUYLHZ RI VWXGHQWV EHKDYLRUV DQG H‡HFWLYH WHDFKHUV UHVSRQVLELOLWLHV LQ SUHSDUDWLRQ IRU IXUWKHU VWXG\ LQ WKH ¿HOG RI HGXFDWLRQ 7KLV FRXUVH LQFOXGHV KRXUV of classroom observation in a K-12 classroom. Instructor permission is needed for non-high school graduates. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

EDU 212, Educating Exceptional Children
Division: Social Science
This course addresses the complexity of understanding and HGXFDWLQJ WKH H[FHSWLRQDO FKŁOG RQH ZLWK VSHFLDO QHHGV GLV DELOLWLHV DQG GL‡HULQJ DELOLWLHV LQFOXGLQJ JLIWHG DQG WDOHQWHG $UHDV FRYHUHG ZLOO LQFOXGH H[FHSWLRQDO FKLOG GHYHORSPHQW IDPLO\ GHYHORSPHQW DQG G\QDPLFV LGHQWL¿FDWLRQ SURFHVVHV methods for contributing to the child's healthy development and educational needs, community resources and referral SURFHGXUHV 7KLV FRXUVH ZLOO DGGUHVV WKH XQLTXH FKDOOHQJHV related to creating developmentally appropriate accommodations and inclusion practices in the educational and early care setting. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: ECE 202 or PSY 101
Co-Requisites: None Recommended Prerequisites: Placement into ENG 11/111

EET Electronics Technology

EET 102, Intro to Engineering Tech Division: Technical
7KLV FRXUVH LV GHVLJQHG WR JLYH VWX gineering Technology and the career options this profession provides. This course highlights the technical specializations ZLWKLQ WKH (QJLQHHULQJ 7HFKQRORJ\ G topics also include engineering design methods, project PDQDJHPHQW SULQFLSOHV DQG SUDFWLF engineering ethics, and the role of engineering in global and environmental issues. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into MTH 23 and ENG 99/101

EET 121, Electrical Studies I
7KLV FRXUVH LV GHVLJQHG WR SURYLGH D WKH HJLHV QHFHVVDU\ WR VXFFHHG LQ FROOHJH DQG EH[DPLQH WKH FKDUDFWHULVWLFV RI VXFFHVVIXO VWXGHQWV DV ZHOO DV OHDUQ VWUDWHJLHV IRU WDNLQJ JUHDWHU UHVSRQVLELOLW\ IRU WKHLU RZQ OHDUQLQJ $GGLWLRQDOO\ WKH FRXUVH IRFXVHV RQ GHYHORSLQJ JURZWK PLQGVHWV DQG PRUH H‡HFWLYH WLPH PDQDJHPHQW VNLOOV DV ZHOO DV KHOS

EET 180, Biomedical Equipment I Division: Technical
7KLV FRXUVH LQWURGXFHV WKH OHDUQHU WR WKH ¿HOG RI WKH ELRPHGical equipment technology and the role of the technician.
Safety, patient care, ethics, regulatory requirements, health-FDUH HTXLSPHQW WHFKQRORJ\ DQG IXQFWLRQ ZLOO EH HPSKDVL]HG Proper procedures and protocols for the calibration, test DQG WURXEOHVKRRWLQJ RI PHG-LFDO HTXLSPHQW ZLOO EH GHYHORSHG &RPPRQ GLDJQRVWLF HTXLSPHQW ZLOO EH XVHG IRU VLJQDO DQDO\VLV 7KH FRXUVH ZLOO EHJLQ WKH SUHSDUDWLRQ IRU WKH &%(7 FHUWL¿FDWLRQ H[DP *URXS FRXUVH
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: BIO 106, EET 204, HAH 101
Co-Requisites: None Recommended Prerequisites: None

EET 190, Biomedical Internship Division: Technical
The purpose of the internship is to provide on-the-job WUDLQLQJ IRU WKH VWXGHQW ZKR ZLVKHV WR SXUVXH D FDUHHU LQ %LRPHGLFDO (TXLSPHQW 7KH LQWHUQVKLS ZLOO EH FXVWRPL]HG WR meet the learning needs of the student and the job require-PHQWV RI WKH VSRQVRULQJ ¿UP 6WXGHQWV VSHQG KRXUV SHU ZHHN LQ WKLV SDLG VXSHUYLVHG RQ WKH MRE WUDLQLQJ H[SHULHQFH ,Q DGGLWLRQ WR WKH UHTXLUHG KRXUV SHU FUHGLW LQ D ZRUN VLWH students participate in three seminars. Students must apply RQH PRQWK SULRU WR WKH VHPHVWHU LQ ZKLFK WKH\ ZLOO FRPSOHWH the internship. Group 2 course.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: EET 180 Co-Requisites: None
Recommended Prerequisites: None

EET 204, Electrical Studies II Division: Technical
A systems level approach to electronics and electrical GHYLFHV ZLOO EH XVHG WR DQDO\]H VHPLFRQGXFWRU DSSOLFDWLRQV LQFOXGLQJ LQWHJUDWHG FLUFXLWV SRZHU VXSSOLHV WUDQVLVWRUV DPSOL¿HUV DQG GLJLWDO ORJLF IDPLOLHV &LUFXLWV ZLOO EH EHQFKWHVWHG DQG LQWHJUDWHG ZLWK RWKHUV WR PHHW V\VWHP UHTXLUHPHQWV 'HVLJQ PRGL¿FDWLRQV FŁUFXLW LPSURYHPHQWV FRPSOnent protection and application to other areas of engineering WHFKQRORJ\ ZLOO EH HPSKDVL]HG DV GHVLJQV DUH GHYHORSHG LQWR ZRUNLQJ SURWRW\SHV *URXS FRXUVH
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: EET 103 Co-Requisites: None
Recommended Prerequisites: None

EET 212, Elements of Photonics Division: Technical
Elements of Photonics builds upon and applies principles SUHVHQWHG LQ)XQGDPHQWDOV RI /LJKW DQG /DVHUV 7KH FRXUVH includes modules on operational characteristics of lasers, VSHFL¿F ODVHU W\SHV RSWLFDO GHWHFWRUV DQG KXPDQ YLVLRQ SULQFLSOHV RI RSWLFDO ¿EHU FRPPXQLFDWLRQV SKRWRQLFV GHYLFHV IRU LPDJLQJ VWRUDJH DQG GLVSOD\ DQG ODVHU ZHOGLQJ DQG

EET 260, System Engineering in Practice
Division: Technical

NMC.
Find it here.

(*< 5HVLGHQWLDO (QHUJ\ (ˆFLHQF\
Division: Construction Technology

ELE 111, Electrical Code Studies II

ENG 108, Critical Reading Strategies
Division: Communications
The focus of this course is on improving college-level UHDGLQJ VNLOOV 6WXGHQWV UHDG DQG LQWHUDFW ZLWK FRPSOH[WH[WV LQFOXGLQJ ¿FWLRQ QRQ ¿FWLRQ PHPRLU DUWLFOHV DQG ERRNV Students also learn to employ a variety of reading strategies to enhance comprehension and critical thinking. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: Students are placed in this course according to placement guidelines set by NMC.
Co-Requisites: ENG 99 Recommended Prerequisites: None

ENG 222, Advanced Creative Writing
Division: Communications
&RQWLQXHG VWXG\ DQG SUDFWLFH RI EDVLF WHFKQLTXHV RI H‡HFWLYH imaginative prose learned in ENG 221: concrete language, FRQÀLFW FKDUDFWHUL]DWLRQ SRLQW RI YLHZ QDUUDWLYH DUF SDFH DQG VHWWLQJ)RFXV RQ ¿FWLRQ EXW DOORZDQFH IRU QRQ¿FWLRQ

ENG 254, Shakespeare Division: Communications
This course is an introduction to representative major dra-
PDWLF ZRUNV RI 6KDNHVSHDUH DQG WKH (OL]DEHWKDQ $JH DQG
LQFOXGHV OHFWXUH ¿OP DQG GLVFXVVLRQ +XPDQLWLHV RU (QJOLVK
credit. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: Placement into ENG 111
Co-Requisites: None Recommended Prerequisites: None

ENG 256, Environmental Literature
Division: Communications
7KLV FRXUVH ZLOO H[SORUH WKH FKDQJLQJ SHUFHSWLRQV DQG GH¿
QLWLRQV RI ZLOGHUQHVV DQG QDWXUH LQ $PHULFDQ OLWHUDWXUH DQG
FXOWXUH 6WXGHQWV ZLOO UHDG DQG GLVFXVV SRHWU\ ¿FWLRQ DQG
QRQ¿FWLRQ E\ $PHULFDQ DXWKRUV LQFOXGLQJ (PHUVRQ 7KR-
UHDX 0XLU /HRSROG $XVWLQ &DUVRQ 6WHJQHU -H‡HUV 6LOLR
6Q\GHU 2OLYHU $EEH\ DQG :LOOLDPV :H ZLOO DOVR H[SORUH WKH
LQWHUDFWLRQ EHWZHHQ OLWHUDWXUH DQG HQYLURQPHQWDO DFWLYLVP
DQG FRQVLGHU WKH LPSDFW RI QDWXUH DQG ZLOGHUQHVV RQ WKH
American art. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: Placement into ENG 111.
Co-Requisites: None Recommended Prerequisites: None

ENG 262, American Literature Division: Communications
Students in this course study the American tradition, early
DQG PRGHUQ LQ SURVH DQG SR-HWU\ 6HOHFWLRQV ZLOO HPSKD
size the cultural and intellectual background giving rise to
our national literature, the major phases or movements in
WKDW OLWHUDWXUH DQG KRZ FHUWDLQ ZULWHUV WUDQVFHQGHG WKRVH
PRYHPHQWV WR FUHDWH ZRUN RI XQLYHUVDO YDOXH +XPDQLWLHV RU
English credit. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: Placement into ENG 111.
Co-Requisites: None Recommended Prerequisites: None

ENG 263, World Literature Division: Communications

Co-Requisites: None Recommended Prerequisite1: None

ENG 263, World Literature

ENV 140, Watershed Science Division: Science & Math
ENV 140L, Watershed Science Lab
7KLV FRXUVH LV GHVLJQHG IRU WKH OHDUQHU ZKR ZLVKHV WR JDLQ DQ LQ GHSWK XQGHUVWDQGLQJ RI ZDWHUVKHGV ,W ZLOO IRFXV RQ WKH physical and biological systems that are responsible for the TXDOLW\ DQG FKDUDFWHULVWLFV RI D ZDWHUVKHG DQG LPSDFWV RQ RXU ORFDO WLRQV VWHZDUGVKLS PDQDJHPHQW DQG LPSOHPHQW ZDWHU UHVRXUFHV ZLOO DOVR EH H[SORUHG 7KH ODERUDWRU\ SRUWLRQ RI WKH FRXUVH ZLOO SODFH HPSKDVLV RQ ¿HOG LQYHVWLJDWLRQV DQG WKH DQDO\VLV RI GDWD DQG ZDWHU VDPSOHV FROOHFWHG %DVLF VFLHQWL¿F SULQFLSOHV ZLOO EH LQFRUSRUDWHG WKURXJKRXW WKH FRXUVH
Group 1 lab course.
Credit Hours: 4 Contact Hours:
Required Prerequisites: None Co-Requisites: ENV 140L
Recommended Prerequisites: ENG 111, MTH 111

ENV 270A, Michigan Basin Geology
Division: Science & Math
7KLV FRXUVH LV D VL[GD\ ¿HOG VWXG\ RI WKH 0LFKLJDQ %DVLQ The class focuses on the Paleozoic geologic history, fossil UHFRUG DQG HFRQRPLF JHRORJ\ RI WKH ORZHU 3HQLQVXOD DQG HDVWHUQ 8SSHU 3HQLQVXOD 7KH UHODWLRQVKLSV RI EHGURFN OD\ HUV WR UHFHQW VXU¿FLDO JHRORJLF SURFHVVHV DQG WKHLU DVVRFLDWHG ODQGIRUPV ZLOO EH H[SORUHG *URXS FRXUVH
Credit Hours: 2 Contact Hours: 3
Required Prerequisites: Completion of any science course with laboratory, instructor permission Co-Requisites: None
Recommended Prerequisites: ENG 111, MTH 23

ENV 270B, Field Mapping Techniques
Division: Science & Math
7KLV FRXUVH LV D RQH ZHHN ¿HOG FRXUVH ,W ZLOO IRFXV RQ WKH fundamentals of map interpretation and generation. Students ZLOO JDLQ D EDVLF XQGHUVWDQGLQJ RI WKH SULQFLSOHV RI FDUWRJUDSK\ DQG ¿HOG PDSSLQJ WHFKQLTXHV HPSOR\HG E\ YDULRXV disciplines in the acquisition of spatial data. Group 1 course.
Credit Hours: 2 Contact Hours: 3
Required Prerequisites: MTH 23, instructor permission required Co-Requisites: None Recommended Prerequisites: ENG 111, completion of any science course with laboratory.

ENV 270C, Precambrian Geology of MI
Division: Science & Math
7KLV FRXUVH LV D VL[GD\ ¿HOG VWXG\ RI WKH 3UHFDPEULDQ JHRO RJ\ RI WKH ZHVWHUQ 8SSHU 3HQLQVXOD RI 0LFKLJDQ 7KH FODVV ZLOO IRFXV RQ URFN DQG PLQHUDO LGHQWL¿FDWLRQ HFRQRPLF JHRO RJ\ DQG WKH JHRORJLF KLVWRU\ RI 0LFKLJDQ V 8SSHU 3HQLQVXOD 7KH UHODWLRQVKLSV RI DQFLHQW EHGURFN OD\HUV WR UHFHQW VXU¿FLDO JHRORJLF SURFHVVHV DQG WKHLU DVVRFLDWHG ODQGIRUPV ZLOO DOVR be explored. Group 1 course.
Credit Hours: 2 Contact Hours: 3
Required Prerequisites: Completion of any science course with laboratory, instructor permission required.
Co-Requisites: None Recommended Prerequisites: ENG 111, MTH 23

(6/ (QJOLVK DV 6HFRQG

ESL 88, ESL Reading & Vocabulary I
Division: Communications
(6/ 5HDGLQJ 9RFDEXODU\ EHJLQV JLYL OHDUQHUV WKH OLWHUDF\ VNLOOV WKH\ FRROLHJH $FTXLUL QJ QHZ YRFDEXODU\ L 7KH ODERUDWRU\ SRUWLRQ 6WXGHQWV ZLOO GR FRW-K H[WH LQJ DV ZHOO DV UHDGLQJ IRU SQHDVXUE 9F DQG (QJOLVK VHQWHQFH VWUXFWXUH LV
Non-transferable Hours: 3
Required Prerequisites: None Co-Requisites: ESL 89
Recommended Prerequisites: Students may be placed in this course based on TOEFL scores and/or appropriate placement scores. Writing samples will aid in placement.

ESL 89, ESL Writing & Grammar I
Division: Communications
(6/ :UL WLQJ *UDPPDU ZLOO OD\ WKH I ZUL WLQJ IRU VWXGHQWV OHDUQLQJ (QJO 6WXGHQWV ZLOO OHDUQ VWUDWHJLHV IR ZULWLQJ RQ D VHQWHQFH OHYHO
Non-transferable Hours: 3
Required Prerequisites: None Co-Requisites: ESL 88
Recommended Prerequisites: Students may be placed in this course based on TOEFL scores and/or appropriate placement scores. Writing samples will aid in placement.

ESL 98, ESL Reading & Vocabulary II
Division: Communications
(6/ 5HDGLQJ 9RFDEXODU\ ,, LV GH-VLJQH guage learners the literacy skills they need for college level reading by building on skills they already have. Emphasis RQ DFTXLULQJ YRFDEXODU\ IURP DFDGHP prepare students for reading intensive courses. Students

Division: Communications

ESL 99, ESL Writing & Grammar II
Division: Communications
(6/ :ULWLQJ *UDPPDU ,, JLYHV WKH VHFRQG ODQJXDJH OHDUQHUV WKH VNLOOV WKH\ QHHG WR DSSURDFK FROOHJH OHYHO ZULWLQJ ,W builds on skills students already have to prepare them for
FROOHJH FRPSRVLWLRQ FRXUVHV (1* /HDUQHUV ZLOO ZULWH WKHVLV GULYHQ HVVD\V DQG FRPSOHWH VPDOOHU ZULWLQJ DVVLJQPHQWV DV ZHOO DV OHDUQ WR FRPSUHKHQG DQG SHUIRUP DGYDQFHG JUDPPDWLFDO VHQWHQFH VWUXFWXUHV 6WXGHQWV ZLOO OHDUQ WR XVH OLEUDU\ UHVHDUFK WR VXSSRUW WKHLU LGHDV LQ ZULWLQJ
Non-transferable Hours: 3
Required Prerequisites: None Co-Requisites: ESL 98
Recommended Prerequisites: Students may be placed in this course based on TOEFL scores, appropriate placement scores, or passing a lower level Writing and Grammar class.

Writing Samples Web and BDC Tagging sa4400550050.17 <</Lang (en-US)/MCID 5970 >>BDC /C2_0 1 Tf -28ivision: C.233<</Lang (en-UCFpm904A001BDC i230044004F004FC /C 92 >>BD T* 96 en2_0 1 Tf 5120

Course Descriptions

HDA 112, Dental Materials Division: Health Occupations
Students learn the preparation, manipulation, and use of dental materials, impression materials, gypsum products, cements, metals and therapeutic materials. Preparation of each material will be demonstrated, and each student will be required to successfully complete laboratory exercises.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: HDA 113
Recommended Prerequisites: HAH 120, HDA 120

HDA 113, Dental Materials Lab
Division: Health Occupations
This course is the laboratory component of dental materials. Laboratory activities are provided in the laboratory to develop skills in mixing techniques, impression taking, construction of study models, bleach and acrylic trays, and cleaning and polishing appliances. Group 2 course.
Credit Hours: 1 Contact Hours: 2
Required Prerequisites: None Co-Requisites: HDA 112
Recommended Prerequisites: None

HDA 120, Dental Anatomy Division: Health Occupations
The student will learn the dental anatomy, oral cavity, tissues and head and neck anatomy of the teeth and surrounding structures, the bones of the skull, the nerves and blood supply of the head and neck, the muscles of mastication, and the names and functions of the teeth and head and neck structures. This course provides information on the anatomy of the individual teeth. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

HDA 140, Oral Pathology/Pharmacology
Division: Health Occupations
The purpose of this course is to provide the student with a basic knowledge of oral disease processes related to the oral cavity and to enable the student to identify these diseases when encountered in becoming familiar with various drugs and their uses in dentistry. Emphasis is placed on the study of drugs, routes of administration, and the conditions that modify the reactions of drugs. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: HDA 120

NMC.
Find it here.

HDA 150, Dental Office Management
Division: Health Occupations
This course is designed to provide the student with the knowledge of the dental office. Topics include appointment control, accounts receivable and payable, payroll, dental record keeping, third party payment, patient recall, inventory control, telephone techniques, and use of computers in the dental office. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

HDA 160, Dental Emergencies
Division: Health Occupations
This course will provide knowledge and understanding of the dental patient's health status, the importance of obtaining accurate and complete patient histories, the proper emergency equipment to be available in the dental office, how to manage these emergencies and the maintenance of that equipment, and the taking and recording of vital signs. Group 2 course.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

HDA 170, Preventive Dentistry
Division: Health Occupations
This course will provide knowledge and understanding of the dental patient's health status, the importance of obtaining accurate and complete patient histories, the proper emergency equipment to be available in the dental office, how to manage these emergencies and the maintenance of that equipment, and the taking and recording of vital signs. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

HDA 240, Chairside Procedures
Division: Health Occupations
This course provides the foundation for dental assistant clinical procedures performed in both general and specialty dental offices. Topics include infection control and safety, dental specialties, duties of the dental assistant, and basic skills performed by the Registered Dental Assistant. In addition, local dental specialists serve as guest speakers. Group 2 course.
Credit Hours: Contact Hours:
Required Prerequisites: None Co-Requisites: HDA 241
Recommended Prerequisites: HAH 120, HDA 101, HDA 120, HDA 160, HDA 242, HDA 243

HNR 102, Fund of Nursing-Clinical
Division: Health Occupations

HNR 241, Adv Maternal Child Nursing-Lec
Division: Health Occupations
This course provides information on complex problems IDFLQJ IDPLOLHV FRSLQJ ZLWK FRPSOLFDWLRQV EHDULQJ FKLOGUHDULQJ SURFHVV LQFOXGLQJ DW ULVN IDPLOLHV 7KHVH FRQFHSWV ZLOO EH DSSOLHG WR UHYLHZ RI complications occurring during childhood and the prenatal, intrapartum and postpartum periods. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: HNR 251 & HNR 252 with a grade of 2.5 or higher Co-Requisites: HNR 221, HNR 242
Recommended Prerequisites: None

HNR 242, Adv Maternal Child Nursing-Cli
Division: Health Occupations
This course provides for the clinical application of the principles presented in the co requisite: HNR 241. Mater-QLW\ FOLQLFDO WLPH ZLOO RFFXU LQ QRQ FOLQLFDO WLPH ZLOO EH LQ DQ DFXWH setting observing and caring for pediatric patients. Students ZLOO FRPSOHWH D GHWDLOHG IDPLO\ clinical simulations, and participate in these experiences by observing and/or directly providing care to at-risk families FRSLQJ ZLWK FKLOGEHDULQJ DQG RU sues. Group 2 course.
Credit Hours: 2 Contact Hours: 6
Required Prerequisites: HNR 251 & HNR 252, with a grade of 2.5 or higher Co-Requisites: HNR 221, HNR 241
Recommended Prerequisites: None

HNR 248, Complex Patient Mgt I-Clinical
Division: Health Occupations
Clinical experience providing opportunities to apply princi-SOHV SUHVHQWHG LQ +15 (PSKDVL organization, decision-making, critical thinking, and priori-W\ VHWWLQJ VNLOOV LQ WKH FDUH RI medical/surgical disorders. Group 2 course.
Credit Hours: 4 Contact Hours: 12
Required Prerequisites: HNR 221 & HNR 241 with a grade of 2.5 or higher; HNR 242 with an S
CoRequisites: HNR 222, HNR 261
Recommended Prerequisites: None

HNR 251, Mental Health Nursing - Lec
Division: Health Occupations
This course is designed to enable the student to better XQGHUVWDQG EHKDYLRU H[KLELWHG E diseases are presented and treatments such as individual, group, and activity therapies are explored. Emphasis is SODFHG RQ WKH ZD\V E\ ZKLFK velops, implements, and evaluates a therapeutic environ-ment for the client. The implementing of theories of human EHKDYLRU LV WKH VFLHQWL¿F DSSOH QXUVLQJ WKH SXUSRVHIXO XVH RI WKH VHOI LQ WKH SHUIRUPDQFH RI care is the artful aspect. The goal is preventative and corrective impact upon mental illness and the restoration of optimal mental health for individuals. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: HNR 107 & HNR 125 with a grade of 2.5 or higher; HNR 126 with a grade of S CoRequisites: HNR 252
Recommended Prerequisites: None

HNR 252, Mental Health Nursing-Clinical
Division: Health Occupations
Clinical experience providing opportunities to apply prin-FLSOHV SUHVHQWHG LQ +15 $ YDULHW addressing mental health issues in acute care, long-term care, and in community agencies are utilized. Emphasis is placed upon the exercise of critical thinking in addressing mental health issues and concerns. Additionally, students identify and analyze community resources of use to persons ZLWK PHQWDO KHDOWK LVVXHV *URXS
Credit Hours: 1 Contact Hours: 3
Required Prerequisites: HNR 107 & HNR 125 with a grade of 2.5 or higher; HNR 126 with a grade of S Co-Requisites: HNR 251
Recommended Prerequisites: None

HNR 261, Complex Patient Mgmt II-Lec
Division: Health Occupations
Introduces principles of leadership and management as these relate to providing nursing care to a group of patients. The principles of delegation, communication, and priori-W\ VHWWLQJ DUH UHYLHZHG DQG D YDUL challenges are discussed, including team building, managing FKDQJH FRQÀLFW UHVROXWLRQ SRZHU action, economic aspects of health care, legal/ethical issues, DQG HPHUJHQF\ SUHSDUHGQHVV -RE VH RN preparation, and issues related to role transition are GLVFXVVHG Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: HNR 221 and HNR 241 with a grade of 2.5 or higher; HNR 242 with a grade of S Co-Requisites: HNR 222, HNR 248, HNR 262
Recommended Prerequisites: None

HNR 262, Complex Patient Mgmt II Clinic
Division: Health Occupations
Clinical experience providing opportunities to apply principles presented in HNR 261. Emphasis is placed upon organizational skills, time management, critical thinking, and the exercise of clinical judgment in managing the care for a GLVRUGHUV &ODVVLF¿FDWLRQV FDXVHV ZLWK WKH JRDO RI SURPRWLQJ D VXFFHV student to entry-level professional nurse. Group 2 course.
Credit Hours: 4 Contact Hours: 12
Required Prerequisites: HNR 222 with a grade of 2.5 or higher; HNR 248 with S Co-Requisites: HNR 261
Recommended Prerequisites: None

HST 212, African-American History Division: Humanities
This course is a history of the African-American experience from African origins to the Modern era in America. Major emphasis is placed upon the social, political, and economic role of the African-American community in American society and
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HST 213, American Women's History
Division: Humanities
American origins to the Modern Era. Major emphasis is placed upon the social, political, and economic role Amer-
skill in analysis, critical thinking, historical reasoning, and
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HST 225, American Civil War Division: Humanities
This course is a study of the American Civil War. The instructional goal of this course is to have students demonstrate through discussions and essays the causes of the Civil War
and critical thinking. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HST 228, The Vietnam War Division: Humanities
This course is a study of the history of the Vietnam War. The instructional goal of this course is to have students
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HST 230, A History of Michigan Division: Humanities
This course is a history of Michigan from Native American origins to the modern era. The instructional goal of this course is to have students demonstrate through discussion and essays the distinctive characteristics of Michigan history,
skills in analysis, critical thinking, historical reasoning, and
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HST 235, 20th Century Europe Division: Humanities
This course is a study of the history of Europe in the 20th
1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HUM 101, Introduction to Humanities
Division: Humanities
An interdisciplinary study of Western Culture focusing on the interrelationships of art, literature, and philosophy as they reveal the major ideas and values of Classical Greek, Roman, Medieval, and Renaissance civilizations. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HUM 102, Introduction to Humanities
Division: Humanities
An interdisciplinary study of Western Civilization focusing on the interrelationships of art, literature, and philosophy as they reveal the major ideas and values of the Reformation, Baroque, Neo-Classic, Romantic, 19th Century, and Modern periods. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HUM 116, World Cultures Division: Humanities
The purpose of this course is to introduce major trends of
QRQ :HVWHUQ FXOWXUH +80 H[SORUHV WKH FXOWXUH RI $VLD
Africa, and the Americas utilizing an interdisciplinary and
thematic approach focusing on social/political/historical
issues, cultural and religious rituals, painting, sculpture,
DUFKLWHFWXUH ¿OP PXVLF DQG FXVWRPV DQG WUDGLWLRQV RI HDFK
UHJLRQ /HFWXUHV IRFXV RQ KRZ FXOWXUHV VKDSH WKH ZRUOG
WRGD\ ZLWK DSSURSULDWH UHIHUHQFHV WR KLVWRULFDO HYHQWV DQG
trends. Group 1 course.
Credit Hours: 4 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

HVA Heating, Ventilation, Air Conditioning

MDK 330, STCW Elementary First Aid Division: Maritime
This course meets the mandatory minimum requirements VSHFL¿HG XQGHU 67&: DV UHODWHG WR SURYLGH basic safety training for all merchant mariners. This course LV SDUW RI WKH 67&: FHUWL¿FDWLRQ SURFHVV &DGHWV ZLOO OHDUQ to take immediate action upon encountering an accident or other medical emergency. STCW.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: All prerequisites for all GLMA FRXUVHV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP guide and any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: None
Recommended Prerequisites: None

MDK 331, Electronic Navigation Division: Maritime
An in depth study of the various electronic navigation sys- WHPV ZLWK HPSKDVLV RQ 5$'$5 &RYHUV WKH WKHRU\ RSHUD- tion, use, advantages, disadvantages and general mainte- QDQFH IRU HDFK V\VWHP 5(48,5(' &2856(WKDW PXVW EH completed successfully before the student may receive an RULJLQDO ³5$'$5 2EVHUYHU &HUWL¿FDWH´ 67&:
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: All prerequisites for all GLMA cours- HV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP JXLGH and any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: MDK 332
Recommended Prerequisites: ENG 111, MTH 111

MDK 332, Electronic Navigation Lab Division: Maritime
A practical course to understand the use and operation of a PDULQH UDGDU 7KLV LQFOXGHV +RZ WR DYRLG FROOLVLRQ VLWXDWLRQV XVLQJ 5DSLG 5DGDU 3ORWWLQJ VLWXDWLRQDO DZDUHQHVV WKH XVH DQG RSHUDWLRQ RI WKH J\URFRPS-DVV /RUDQ ³&´ *36 DQG (& DIS. The required course must be successfully completed before the student may receive an original “Radar Observer &HUWL¿FDWH´
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: All prerequisites for all GLMA cours- HV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP JXLGH and any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: MDK 331
Recommended Prerequisites: ENG 111, MTH 111

MDK 333, Automatic Radar Plotting Aids
Division: Maritime
This course presents the principals and operation of au-

MDK 411, Marine Communications Division: Maritime
7KLV FRXUVH LV GHVLJQHG WR DFTXDLQW WKH VWXGHQW ZLWK FRP
munication systems commonly found in the Marine Industry.
It includes the basic layout of the Global Maritime Distress
DQG 6DIHW\ 6\VWHP *0'66 FRPPXQLFDWLRQ HTXLSPHQW
requirements, licensing requirements, principles and
procedures for marine communications, the characteristics
RI UDGLR ZDYH SURSDJDWLRQ IUHTXHQFLHV DQG PRGXODWLRQ
,QFOXGHG DOVR LV WKH 0RUVH &RGH)ODVKLQJ /LJKW DQG JHQHUDO
Distress Signals. STCW.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: All prerequisites for all GLMA
FRXUVHV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP
guide and any deviation from the curriculum guide needs to
be approved by the department head. Co-Requisites: None
Recommended Prerequisites: ENG 111, MTH 122

MDK 431, ECDIS Division: Maritime
The purpose of this course is to meet the training require-
ments in STCW, as amended, for the operational use of
(OHFWURQLF &KDUW 'LVSOD\ DQG ,QIRUPDWLRQ 6\VWHPV (&',6
7KLV FRXUVH SURYLGHV WKH NQRZOHGJH VNLOO DQG XQGHUVWDQGLQJ
of ECDIS emphasizing both the application and learning of
(&',6 LQ D YDULHW\ RI XQGHUZD\ FRQWH[WV 7KLV LV DFKLHYHG
through use of a sophisticated navigation simulation integrat-
HG ZLWK D W\SH DSSURYHG (&',6
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: All prerequisites for all GLMA
FRXUVHV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP
guide and any deviation from the curriculum guide needs to
be approved by the department head. Co-Requisites: None
Recommended Prerequisites: ENG 111; MTH 111 or higher

MDK 444, Cargo Systems Division: Maritime
$Q LQ GHSWK VWXG\ RI WKH *UHDW /DNHV VHOI XQORDGLQJ YHVVHO
container vessels, tankers, passenger vessels, regulations
concerning hazardous materials, government regulations
DQG WKH UHODWLRQVKLS EHWZHHQ YHVVHO DQG VKRUHVLGH RSHUD
tions.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: All prerequisites for all GLMA
FRXUVHV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP
guide and any deviation from the curriculum guide needs to
be approved by the department head. Co-Requisites: None
Recommended Prerequisites: None

MDK 445, Liquid Cargo Stowage Division: Maritime
A study of the tanker industry and the operational aspects
of the tank vessel, pollution, prevention, precautions and
SURFHGXUHV OD\RXWV RI GL‡HUHQW W\SHV RI WDQNHUV RSHUD
tions sequence and oil tanker construction and terminology.
86&* DQG 23$ ¶ UHJXODWLRQV ZLOO EH FRYHUHG 67&:
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: All prerequisites for all GLMA
FRXUVHV DUH VDWLV¿HG E\ IROORZLQJ WKH DSSURYHG FXUULFXOXP
guide and any deviation from the curriculum guide needs to
be approved by the department head. Co-Requisites: None

-beexercises. Group>BDc1 1 e.Tf 24.159 0 Td (-)Tj EMC /Span <</Lan3n from th
Credit Hours:

MFG Manufacturing Technology

MFG 104, Fluid Power Division: Technical
7KH)OXLG 3RZHU FRXUVH LV GHVLJQHG WR SURYLGH VWXGHQWV ZLWK a basic understanding of the concepts and applications of
ÀXLG SRZHU WHFKQRORJ\ DQG WKH QHFHVVDU\ VNLOOV IRU IXUWKHU VWXG\ LQ WKH ¿HOG 7KH FRXUVH LV DQ RYHUYLHZ RI ÀXLG SRZHU WHFKQRORJ\ DSSOLFDWLRQV WKH JHQHUDO FRQFHSW RI ÀXLG SRZHU V\VWHPV DQ LQWURGXFWLRQ WR ‑HQHUJ\ LQSXW HQHUJ\ RXWSXW HQ HUJ\ FRQWURO DQG V\VWHPV DX[LOLDU\ FRPSRQHQWV DV ZHOO DV the design and function of components. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None Recommended Prerequisites: Placement into MTH 111 and ENG 99/108 recommended for entry.

MFG 111, Math for Manufacturing Division: Technical
7KLV FRXUVH ZLOO DSSO\ SULQFLSOHV RI PDWKHPDWLFV JHRPHWU\ and basic trigonometry to applications in manufacturing.
7RSLFV ZLOO LQFOXGH SURSRUWLRQV FDOFXODWLRQ RI PDFKLQH VSHHG and feed and geometric relationships of triangles and circles.
3UREOHP VROYLQJ ZLOO UHTXLUH WKH XVH RI WKH 3\WKDJRUHDQ 7KHorem and the sine, cosine, and tangent functions to solve
ULJKW WULDQJOHV 7KH /DZ RI 6LQHV DQG /DZ RI &RVLQHV ZLOO EH used to solve oblique triangle applications. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: MTH 23 or placement into MTH 111
Co-Requisites: None Recommended Prerequisites: None

MFG 113, Machining I Division: Technical
7KH VWXGHQW ZLOO EH LQWURGXFHG WR PHDVXUHPHQW DQG WKH VDIH use of layout and bench tools, drill press operations, and basic lathe facing and turning operations. Basic vertical milling
RSHUDWLRQV ZLOO DOVR EH LQFOXGHG *URXS FRXUVH
Credit Hours: 3 Contact Hours:
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Print reading, precision measurement, basic machining knowledge and skills, competencies in Communications equal to ENG 99/108 and math
HTXDO WR 07+ 6WXGHQWV ZLOO JUHDWO\ EHQH¿W IURP KDYLQJ competency up to MTH 111.

MFG 114, Machining II Division: Technical
7KLV FRXUVH ZLOO LQWURGXFH VWXGHQWV WR PDFKLQLQJ SURFHGXUHV beyond the basic operations. The student should have previ-
RXVO\ DFTXLUHG EDVLF PDFKLQLQJ NQRZOHGJH DQG VNLOOV /DWKH SURFHGXUHV ZLOO LQFOXGH WKUHDGLQJ DQG FXWWLQJ WDSHUV 0LOOLQJ RSHUDWLRQV ZLOO LQFOXGH WKH R‡VHW ERULQJ KHDG DQG EURDFKLQJ Precision grinding of parallel and angular surfaces using
JDXJH EORFNV DQG D VLQH EDU ZLOO EH LQWURGXFHG 6WXGHQWV ZLOO Division: Technical

g k64wledge and skills, compe-
s e66al to ENG 99/108 and math
0P` 0`p€p€ hp`0 ÀÍð0 P€@pðÀ0P€ €ðp0•P 0°@•À 0
11.

0058005500560048000300 5A004C004E004F0003004C00510073005200030050004400460 Twe(en-US)/MCID04E30440046004B004C3058004

Course Descriptions

MKT Marketing

MKT 201, Principles of Marketing Division: Business
This course surveys the wide spectrum of business activities that anticipate consumer or client needs and direct a flow of goods and services to satisfy those needs. Emphasis is placed on the marketing concept as a business philosophy. Ethics, globalization and social responsibility are explored. Elements of the marketing mix and the elements of a marketing plan. Target marketing and segmentation of consumer markets are introduced. Consumer buying behavior will be studied in this course. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: BUS 101, ENG 111 minimum placement

MKT 208, Digital Marketing Division: Business
This course will help you develop a digital marketing strategy, which may include search engine marketing, email marketing and social media marketing. Developing an awareness of digital marketing strategies leads to an informed, critical internet consumer. Basic email and internet usage skills required. Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: ENG 111 minimum placement

MKT 241, Principles of Advertising Division: Business
This course will prepare the learner with the knowledge of the real economic, social, and cultural impact of advertising and conversely, the impact of society's values on advertising. The strategic function of advertising within the broader context of business and marketing will be explored. The creative aspects of advertising and the budget will be developed. Students will develop an advertising campaign for a product or service. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: BUS 101, ENG 111 minimum placement

MKT 290, Marketing Internship Division: Business
The purpose of the internship is to provide on-the-job training for the student who wishes to pursue a career in Marketing. The internship will be customized to meet the needs of the student and the job requirements of the sponsoring agency. Students spend a minimum of 45 hours per term in a supervised on-the-job training experience. In addition to the required 45 hours per credit, students will meet with the Experiential Coordinator as needed to meet the supervised internship approved learning objectives. Review of professional employment documents and an internship exit interview. Students must apply one month prior to the beginning of the internship. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: 3 Required Prerequisites courses with a GPA of 2.0 or better. Co-Requisites: None
Recommended Prerequisites: None

MNG Maritime Engineering

MNG 100, Intro to Marine Engineering Division: Maritime
This course is a general introduction to the shipboard Engine Room. The duties and responsibilities of the engine room personnel will be covered. The course will introduce the basic principles of ship construction, ship's propulsion (Diesel and Steam), and a study of the operation of the ship's steering gear and deck machinery. This course provides a foundation for the deck and engineering cadet to build upon in his/her program of study.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: All prerequisites for all GLMA programs must be met. Any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: None
Recommended Prerequisites: None

MNG 104, Engine Systems Graphics Division: Maritime
The course will acquaint the student with the various systems and machinery found in the engineering plant. The course will introduce the techniques used in the production of multi-view projection drawings and sketches. Students will develop the ability to read and interpret engineering drawings and diagrams. Students will develop the ability to sketch and draw the listed topics using the use of CAD to produce the listed topics. STCW.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: All prerequisites for all GLMA programs must be met. Any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: MNG 110
Recommended Prerequisites: None

Course Descriptions

MNG 105, Shipboard Information Systems
Division: Maritime
7KLV FRXUVH ZLOO LQWURGXFH WKH VWXGHQW WR WKH 3& DQG LWV XVH as typically found aboard a Merchant Vessel. Basic com-

MNG 335, Electric Machines and Controls
Division: Maritime
This course covers the theory, application, operation, and maintenance of rotating machines as typically found aboard

F R X U V H V D U H V D W L V ¿ H G E \ I R O O R Z L Q J W
guide and any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: MNG 455, MNG 496 Recommended Prerequisites: None

MNG 496, License Preparation - Engine
Division: Maritime
$ F R P S O H W H U H Y L H Z R I D O O S U R I H V V L R Q
Maritime Engineering program. This course is designed to cover the essentials of the Third Assistant Engineer's ex-
D P L Q D W L R Q D G P L Q L V W H U H G E \ W K H 8 6
J U D G H I R U W K L V F R X U V H L V G H S H Q G H Q W
Guard license exam.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: All prerequisites for all GLMA
F R X U V H V D U H V D W L V ¿ H G E \ I R O O R Z L Q J W
guide and any deviation from the curriculum guide needs to be approved by the department head. Co-Requisites: MNG 455, MNG 466 Recommended Prerequisites: None

MNS Naval Science

MNS 100, Naval Science Division: Maritime
This course is required of all Maritime Academy cadets and
L V D Q L Q W U R G X F W L R Q W R 1 D Y D O 6 F L H Q F
W R Z D U G 0 H U F K D Q W 0 D U L Q H R ^ F H U V , W L
V W X G H Q W V Z L W K W K H U R O H R I W K H 0 H U F
G H I H Q V H D Q G S R O L F \ D Q G Z L W K W K H Y D U
D W L R Q E H W Z H H Q W K H 1 D Y \ D Q G W K H 0 H U
Group 2 course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

MNS 200, Naval Science II Division: Maritime
7 K L V F R X U V H L V U H T X L U H G R I D O O 0 D U L V
D U H 0 L G V K L S P H Q L Q W K H 0 H U F K D Q W 0 D U
5 H V H U Y H S U R J U D P , W I D P L O L D U L] H V W K
V L R Q V D Q G K H U L W D J H D V Z H O O D V W R D
R ^ F H U P D N H W K H W U D Q V L W L R Q I U R P F L Y
course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: MNS 100 Co-Requisites: None
Recommended Prerequisites: None

MNS 250, Leadership and Ethics Division: Maritime
7 K L V F R X U V H L V U H T X L U H G R I D O O 0 D U L V
D U H P L G V K L S P H Q L Q W K H 0 H U F K D Q W 0 D U
5 H V H U Y H S U R J U D P , W L Q W U R G X F H V V W X
W U D G L W L R Q V D Q G H W K L F D O S K L O R V R S K Y
such as military leadership, core values, and professional
H W K L F V W K D W Z L O O S U H S D U H W K H P I R U
D V D O H D G H U L Q W K H 8 6 1 D Y \ R I W K H
course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: MNS 200 or instructor permission
Co-Requisites: None Recommended Prerequisites: None

MTH Mathematics

Students are REQUIRED to have and learn to use a TI-84 graphing calculator for ALL math classes.

MTH 08, Pre-Algebra Division: Science & Math
This course provides a review of basic arithmetic skills (adding, subtracting, multiplying and long division. Integers are introduced using number lines and then all operations are combined including exponents and grouping symbols, using the correct order of operations. The concepts of prime factorization, LCM and GCD are introduced to lead in to fraction arithmetic. Fraction arithmetic includes addition, subtraction, multiplication, and division of fractions and mixed numbers

MTH 131, Intro to Prob & Stats Division: Science & Math
Descriptive statistics, experimental design, an introduction to probability concepts and inferential statistics are included in the course. Descriptive statistics includes graphs of both numerical and categorical data, measures of central tendency, and measures of variation. The normal density function, linear regression, and the binomial model are included. One DQG WZR VDPSOH SUREOHPV LQYROYLQJ FRQ¿GHQFH LQWHUYDOV DQG VLJQL¿FDQFH WHVWV DUH VWXGLHG IRU WKH VDPSOH PHDQ DQG WKH sample proportion. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: A grade of 2.0 or better in MTH 111 or higher (excluding MTH 120) or appropriate placement score Co-Requisites: None
Recommended Prerequisites: Placement into ENG 111

MTH 141, Calculus I Division: Science & Math
7KLV LV WKH ¿UVW FRXUVH LQ D WUDGLWLRQDO FDOFXOXV VHTXHQFH

MUS 120, NMC Jazz Band Division: Humanities
$ FRXUVH IRU WKH SHUIRUPHU ZLWK D IR
HQVHPEOH WHFKQLTXHV DQG VW\OHV $ J
DUH FRYHUHG LQFOXGLQJ VZLQJ EH ERS
DQG /DWLQ 6RPH LPSURYLVDWLRQ LV EX
encouraged, although it is not the main focus of this course.
$ PLQLPXP RI RQH FRQFHUW ZLOO EH SH
and all members are required to attend and participate in all scheduled performances. Group 2 course.
Credit Hours: 1 Contact Hours: 2
Required Prerequisites: Previous band or jazz band experience or instructor permission. Co-Requisites: None Recommended Prerequisites: None

MUS 121, NMC Jazz Band Division: Humanities
$ FRXUVH IRU WKH SHUIRUPHU ZLWK D IR
HQVHPEOH WHFKQLTXHV DQG VW\OHV $ J
DUH FRYHUHG LQFOXGLQJ VZLQJ EH ERS
DQG /DWLQ 6RPH LPSURYLVDWLRQ LV EX
encouraged, although it is not the main focus of this course.
$ PLQLPXP RI RQH FRQFHUW ZLOO EH SH
and all members are required to attend and participate in all scheduled performances. Group 2 course.
Credit Hours: 1 Contact Hours: 2
Required Prerequisites: MUS 120, previous band or jazz band experience or instructor permission. Co-Requisites: None Recommended Prerequisites: None

MUS 122, Ensembles in Applied Music I
Division: Humanities
This course prepares students for public performance and develops abilities in ensemble techniques. Students study LQGLYLGXDOO\ DQG LQ VPDOO HQVHPEOH
quintets, and octets) under faculty direction. The course is designed for a year's participation and permission of the instructor is required. Group 2 course.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

MUS 129, History of Rock and Roll Division: Humanities
7KLV FRXUVH ZLOO VWXG\ WKH GHYHORS
IURP LWV URRWV WR WKH SUHVHQW :H Z
and listen to musical examples of each musical period.
6WXGHQWV ZLOO GHYHORS WKH DELOLW\
EHWZHHQ WKH KLVWRULFDO RULJLQV RI
FXUUHQW\ SRSXODU 7KH FODVV ZLOO L
VLJQL¿FDQW PXVLFDO TXDOLWLHV DQG L
GL‡HUHQW SHULRGV DQG VW\OHV- RI URF
` À € p Á '•P € • 0 µß Á 0 * xØ Q Q@D P L Q 3a'• WKH FRQW

MUS 216, NMC Chamber Singers Division: Humanities
086 LV D FRQWLQXDWLRQ RI UHKHDUV
DV EHJXQ LQ 086 7KLV PL[HG 6$7% F
LV RSHQ WR DOO VWXGHQWV ZLWK SDVW
&KDPEHU 6LQJHUV SURYLGHV LWV PHPEH
experience and personal enrichment made possible through
singing of quality choral literature selected from Antiqui-
W\ WKURXJK WKH VW &HQWXU\ ZLWK DQ
ZRUNV DQG ZRUNV IRU VPDOO FKRUDO H
excellence is principal to the purpose of the ensemble. The
Chamber Singers perform throughout the semester and
IUHTXHQWO\ SHUIRUP ZLWK WKH 7UDYHU
Group 2 course.
Credit Hours: 1 Contact Hours: 3
Required Prerequisites: MUS 117, choral experience or
instructor permission. Co-Requisites: None
Recommended Prerequisites: MUS 117, choral experience,
or instructor permission.

MUS 217, NMC Chamber Singers Division: Humanities
086 LV D FRQWLQXDWLRQ RI UHKHDUV
DV EHJXQ LQ 086 7KLV PL[HG 6$7% F
LV RSHQ WR DOO VWXGHQWV ZLWK SDVW
&KDPEHU 6LQJHUV SURYLGHV LWV PHPEH
experience and personal enrichment made possible through
singing of quality choral literature selected from Antiqui-
W\ WKURXJK WKH VW &HQWXU\ ZLWK DQ
ZRUNV DQG ZRUNV IRU VPDOO FKRUDO H
excellence is principal to the purpose of the ensemble. The
Chamber Singers perform throughout the semester and
IUHTXHQWO\ SHUIRUP ZLWK WKH 7UDYHU
Group 2 course.
Credit Hours: 1 Contact Hours: 3
Required Prerequisites: MUS 216, choral experience or
instructor permission. Co-Requisites: None
Recommended Prerequisites: None

MUS 218, NMC Concert Band Division: Humanities
086 LV D FRQWLQXDWLRQ RI UHKHDUV
DV EHJXQ LQ 086 7KLV FRXUVH ZLOO
VLJQL¿FDQW FRQFHUW DQG V\PSKRQL E

singing of quality choral literature selected from Antiqui-

MUS 240-266, Applied Music – Private Lessons
Division: Humanities
3ULYDWH OHVVRQV IRU VWXGHQWV EUDVV ZRRGZLQGV JXLWDU SLDQR YRLFH RUJDQ DQG SHUFXVVLRQ DUH R‡HUHG 6WXGHQW PD\ HQUROO IRU FUHGLW IRU D PLQXWH ŻHHNO\ OHVVRQ RU IRU FUHG LWV IRU D PLQXWH ZHHNO\ OHVVRQ 0XVLF 0DMRUV VKRXOG HQUROO IRU FUHGLWV $IWHU UHJLVWHULQJ IRU $SSOLHG /HVVRQV SOHDVH FRQWDFW -H‡UH\ &REE 'LUHFWRU RI 0XVLF 3URJUDPV MHFREE#QPF HGX RU EHIRUH RU GXULQJ WKH ¿UVW ZHHN RI FODVVHV IRU SODFHPHQW-ZLWK DQ DSSOLHG PXVLF LQVWUXFWRU $ SUH DUUDQJHG OHVVRQ WLPH ZLWK WKH DVVLJQHG LQVWUXFWRU is arranged and studies/compositions, as appropriate, are prepared for continuing musical development. Students are expected to perform for, at a minimum, one Music Convocation each semester. Group 2 course.
Credit Hours: 1-2 Contact Hours: 1-2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

3+/ 3KLORVRSK\

PHL 101, Introduction to Philosophy
Division: Humanities
Introduction to Philosophy is an introduction to some of the major areas, ideas, and thinkers of philosophy. Students ZLOO UHDG VHOHFWLRQV IURP PDMRU SKLORVRSKHUV LQ :HVWHUQ 3KLORVRSK\ DV ZHOO DV WH[WV UHSUHVHQWLQJ QRQ WUDGLWLRQDO or non-Western sources, such as Native American, Asian DQG)HPLQLVW WKRXJKW 6WXGHQWV ZLOO DOVR EH LQWURGXFHG WR some of the main problems and concepts in areas such as (SLVWHPRORJ\ 0HWDSK\VLFV (WKLFV DQG $HVWKHWLFV DV ZHOO as investigate other issues of movements, such as Existentialism or Feminism. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Completion of ENG 11/111 or placement into ENG 111.

PHL 105, Critical Thinking Division: Humanities
7KLV FRXUVH LV DERXW OLVWHQLQJ UHDGLQJ VSHDNLQJ DQG ZULWLQJ PRUH H‡HFWLYHO\ 6WXGHQWV OHDUQ ZD\V WR DVVHVV LQIRUPDWLRQ DQG WR IRUP VRXQG HYDOXDWLYH MXGJPHQWV DERXW ZKDW LV VHHQ read, and heard. Critical questions provide a structure for critical thinking that supports a continuing search for better

PHL 202, Contemporary Ethical Dilemmas
Division: Humanities
Contemporary Ethical Dilemmas examines the moral and ethical issues confronting modern societies locally and globally. Possible topics to be examined may include: the natural environment, the ethical treatment of animals, biomedical HWKLFV DERUWLRQ DQG LVVXHV RI KXPDQ UHSURGXFWLRQ VXFK DV VWHP FHOO UHVHDUFK DQG FORQLQJ EXVLQHVV HWKLFV FULPLQDO MXV WLFH DQG FDSLWDO SXQLVKPHQW UDFLVP VH[LVP DQG RWKHU IRUPV RI GLVFULPLQDWLRQ ZHOIDUH DQG HFRQRPLFV GLVWULEXWLRQ 7KLV course relies on the discipline of philosophy for its methods RI LQTXLU\ ZLWK FULWLFDO WKŁQNLQJ VHUYLQJ DV D JXLGLQJ FRQ FHSW 7UDGLWLRQDO DSSURDFKHV WR HWKLFV ZLOO EH LQFRUSRUDWHG throughout the course. Eastern/Asian and Native American SKLORVRSK\ PD\ DOVR EH FRQVLGHUHG IRU FRQWUDVW ZLWK VWDQ GDUG ZHVWHUQ DSSURDFKHV WR HWKLFDO DQG VRFLDO LVVXHV 7KLV FRXUVH FRQVLGHUV YDULRXV WRSLFV DQG VSHFL¿F FDVHV LQ RUGHU WR SURYLGH DQ RYHUDOO YLHZ RI KRZ HWKLFDO UHDVRQLQJ PLJKW EH applied to current issues. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Completion of ENG 11/111 or placement into ENG 111.

PHL 203, Environmental Ethics Division: Humanities
Environmental Ethics is an introduction to the major approaches to environmental ethics, including anthropocen WULVP ELRFHQWULVP GHHS HFRORJ\ DQG HFRIHPLQLVLP DV ZHOO DV VHYHUDO RWKHUV EDVHG RQ ERWK :HVWHUQ DQG QRQ ZHVWHUQ philosophical and religious traditions. Since environmental HWKLFV GUDZV RQ D YDULHW\ Rŀ GLVFLSOLQHV VRPH RI WKH SHU VSHFWLYHV SUHVHQWHG ZLOO GUDZ KHDYLO\ RQ VFLHQWL¿F DUJX PHQWV ZKLFK HPSKDVL]H PHWKRGV EDVHG RQ UHDVRQ ORJLF REMHFWLYLW\ DQG UHSHDWDELOLW\ 2WKHU SHUVSHFWLYHV ZLOO GUDZ RQ intuition, emotion, imagination, artistic, historic, and religious HS R0 1XHS 0 0 À ŽÍ 0x0

PHY 222, Prob. & Princ. of Physics II
PHY 222L, Prob./ Prin. of Physics II Lab
Division: Science & Math
This course is a continuation of PHY 221. Topics include thermodynamics, electricity, electromagnetism and optics. The laboratory covers the preceding topics in parallel with the lecture. Throughout the development of physical theory, emphasis is placed on the development of conceptual understanding and problem solving skills is emphasized. Group 1 lab course.
Credit Hours: 4 Contact Hours:
Required Prerequisites: PHY 221, PHY 221L, PHY 221R, MTH 141 Co-Requisites: PHY 222L, PHY 222R
Recommended Prerequisites: ENG 111

PHY 222R, Prob. & Princ. of Physics II R
Division: Science & Math
This course is a recitation class to accompany PHY 222.
Group 1 course.
Credit Hours: 1 Contact Hours: 2
Required Prerequisites: None Co-Requisites: PHY 222, PHY 222L Recommended Prerequisites: None

POLITICAL SCIENCE

PLS 101, Intro to American Politics
Division: Social Science
This course is an introduction to the study of politics and political institutions in America. Emphasis is given to the constitutional framework, federalism, political participation, the role of the media in the political process, the electoral

PHY

PSY 223, Intro to Social Psychology
Division: Social Science
This course is an introduction to social psychology theory and research, covering the interactions of individuals and the relationships of individuals to groups. This course includes VXFK WRSLFV DV VRFLDO LQÀXHQFH DWWLWXGHV VRFLDOL]DWLRQ aggression, prejudice, attraction, obedience, conformity, altruism, person perception, and personality. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: PSY 101 or SOC 101
Co-Requisites: None Recommended Prerequisites: Placement into ENG 11/111

PSY 225, Human Sexuality Division: Social Science
+XPDQ 6H[XDOLW\ R‡HUV DQ LQWURGXFWLRQ WR DOO IDFHWV RI WKH ¿HOG DQG LQYROYHV GLVFXVVLRQV RI WKHRU\ UHVHDUFK DQG SUDFWL G`°ð0@ p0
©p0¿HOG ÂWRÑ¡9®]` SÅXFW9¿HOG €©o•R4DF¨HK@pà0 ¤0Ê8Ås?•ÊÀÐ3ÐÐ8Ðs/0sÀ106,àA€`0GLVFXVLR

SOC Sociology

SOC 101, Introduction to Sociology
Division: Social Science
This course is an introduction to the study of human group behavior, culture, socialization, social interaction, and social structure. Emphasis is placed on collective behavior, social institutions, and social change. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 11/111

SOC 201, Modern Social Problems
Division: Social Science
This course presents an introductory sociological analysis of causes, characteristics and attempts to solve some of the major problems in contemporary American society. These include: hunger, environmental problems, poverty, crime and delinquency, family problems, and homelessness. Service learning projects are encouraged. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Placement into ENG 11/111

SOC 211, Marriage and the Family
Division: Social Science
This course covers topics such as diverse forms of families, ethnic diversity in family patterns, and contemporary issues families face. It includes attraction and partner selection, love, intimacy and sexuality, marriage, parenting and family problems. At the macro level, it emphasizes the structure of family as a social institution and its interconnections with other institutions in society including government and the economy. Issues of gender and intersectionality are covered. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None Recommended Prerequisites: SOC 101 strongly recommended, Students need college-ready study, reading and writing skills for this course. Students will analyze evidence and data sources, read and interpret charts and graphs and write extensively on these. Placement in MTH 23 and ENG 111. Honors projects are also available.

SOC 220, Gender and Society Division: Social Science
This course examines gender as a system of stratification. It approaches issues of gender in society from both a social, structural, and a social psychological perspective. Issues related to gender inequality in selected institutions such as economy, family, media, education, and politics are studied. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None Recommended Prerequisites: PSY 101 or SOC 101, and placement into ENG 11/111.

SOC 231, Deviance and Criminal Behavior
Division: Social Science
This course is an introduction to the study of deviance and deviant behavior. The sociological study of deviance refers to the analysis of any behavior that violates social norms. This course will examine and analyze both formal and informal deviance and social responses to deviant behavior. Theoretical approaches that seek to explain social deviance are also discussed and evaluated. Group 1 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: SOC 101, placement into ENG11/111

631 : RUOG /DQJXDJH Spanish

SPN 101, Elementary Spanish I
Division: Communications
This course represents a comprehensive introduction to the Spanish language for the true beginner. Emphasis is placed on developing the ability to communicate in Spanish in everyday situations while learning practical vocabulary for reading, writing, listening and speaking. Cultural topics are integrated in each unit. Group 2 course.
Credit Hours: 4 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Students will be required to read, write, listen, and speak in Spanish. You will need a minimal ability using technology to take advantage of outside-of-class requirements.

SPN 102, Elementary Spanish II
Division: Communications
SPN 102 is a continuation of SPN 101 and focuses on the expansion of the communication skills of reading, writing, listening, and speaking. Cultural topics are integrated in each unit. Group 2 course.
Credit Hours: 4 Contact Hours: 4
Required Prerequisites: SPN 101 with a minimum grade of 2.0 or required score on the NMC placement test or instructor permission. Co-Requisites: None Recommended Prerequisites: Students will be required to read, write, listen, and speak in Spanish. You will need a minimal ability using technology to take advantage of outside-of-class requirements.

NMC.
Find it here.

SRG 204, Professional Career Prep I
Division: Health Occupations
,Q WKLV FRXUVH VWXGHQWV ZLOO ZRUN ZLWK WKH 2ˆFH RI &DUHHU Services to complete a career portfolio and employment training. Major topics in this course include resume creation ERWK ZULWWHQ DQG RQOLQH SRUWIROLRV LQWHUYLHZ SUHSDUDWLRQ MRE search strategies, and professional attire. Group 2 course.
Credit Hours: Contact Hours:
Required Prerequisites: SRG 201 and SRG 202 both may be taken concurrently Co-Requisites: None
Recommended Prerequisites: None

SRG 221, Surgical Procedures III
Division: Health Occupations
6WXGHQWV LQ WKLV FRXUVH ZLOO- VWXG\ WKH UHOHYDQW VXUJLFDO DQDW omy and physiology, factors unique to surgical procedures, pathophysiology, supplies, equipment, and instrumentation needed for a variety of procedures. Surgical procedures covered include the disciplines of neurology, vascular and cardiothoracic surgical procedure categories. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: SRG 204; SRG 222 and SRG 224 both may be taken concurrently Co-Requisites: None
Recommended Prerequisites: None

SRG 222, Surg Procedures III Clinical
Division: Health Occupations
,Q WKLV FRXUVH VWXGHQWV ZLOO FRQWLQXH ZRUNLQJ LQ WKH VXUJLFDO environment under the direction of a surgical technologist RU 51 7KH VWXGHQW ZLOO REVHUYH VFUXE DQG DVVLVW RQ PRUH complex surgical cases as directed by the surgical team. The progression from student to entry level surgical technologist is the goal for the completion of this course along ZLWK WKH VXFFHVVIXO FRPSOHWLRQ RI WKH VFUXEEHG FDVH requirements. Group 2 course.
Credit Hours: 6 Contact Hours: 18
Required Prerequisites: SRG 221 and SRG 224 both may be taken concurrently Co-Requisites: None
Recommended Prerequisites: None

SRG 224, Professional Career Prep II
Division: Health Occupations
,Q WKLV FRXUVH WKH VWXGHQWV ZLOO IRFXV RQ H[DP SUHSDUDWLRQ IRU WKH FHUWL¿FDWLRQ H[DP JLYHQ E\ WKH 1DWLRQDO %RDUG RI 6XUJL FDO 7HFKQRORJLì:$ À ð ªìÑ Ê(Ø À À Ü P À 0 p € p 0 À ð ðE P € 0 7¢€ P0 ` p @ ªF X V Ã¢J 0 ` p € €¢€ T@ ¤€ ` °¤ € p ` 0 À ð ð p ° €ì € p 0 U H
Credit Hours: Contact Hours:
Required Prerequisites: SRG 221 and S2G 224 both may be taken concurrently Co-Requisites: None
Recommended Prerequisites: None

SWK 170, Service Internship Orientation
Division: Social Science
Orientation and preparation for introductory internship experiences in social work agencies. Introduction to use of supervision, supervisory evaluation, self-evaluation and varying agency structures and functions. Opportunities for interviews with agency personnel will be arranged in class and seminar format. Group 2 course.
Credit Hours: 1 Contact Hours: 1
Required Prerequisites: None Co-Requisites: SWK 121
Recommended Prerequisites: None

SWK 211, Social Interviewing Skills
Division: Social Science
Introduction to techniques and skills in basic interviewing. Basic helping skills including attending behaviors, listening, non-verbal communications, rapport building, information giving and information gathering. Beginning training in relationship enhancement and working with pressed or psychologically maladaptive clients. In addition, the course will explore exploring issues with clients with emphasis on the strengths of the client. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: SWK 121, SWK 170, completion of ENG 111/11 or placement into ENG 111

SWK 221, Introduction to Social Welfare
Division: Social Science
This course explores the historical development of social welfare institutions in the United States, how they have evolved and the services and implications of they have had on society today. It also explores major models of social welfare systems and the attitudes, philosophies and the implications of economic, political and cultural conditions. Varying major theories of behavior are explored as they relate to the clients in need of services. The course also explores the importance of social workers understanding the organizational structure and the different roles within the profession. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: SWK 121, SWK 170 Co-Requisites: None Recommended Prerequisites: PLS 101, ENG 11/111 or higher

SWK 290, Social Work Internship
Division: Social Science
This course helps to prepare students for the generalist practice of social work. Students will be placed in a social work agency where they will work under the supervision of a professional social worker. Students will be assisting in general service delivery under close supervision. Students must complete the 120 hours in one semester. Group 2 course.
Credit Hours: 3 Contact Hours: 3
Required Prerequisites: SWK 121, SWK 170
Co-Requisites: None Recommended Prerequisites: SWK 211, and stages of interviewing. Basis helping skills including attending behaviors, listening, non-verbal communications, rapport building, information giving and information gathering. Beginning training in relationship enhancement and working with pressed or psychologically maladaptive clients. In addition, the course will explore exploring issues with clients with emphasis on the strengths of the client. Group 2 course.

VCA Visual Communications/Art

VCA 100, Materials and Techniques Division: Humanities
This course introduces students to various drawing media and techniques. Students will explore the use of pencil, charcoal, pastel, ink and watercolor. Emphasis is placed on developing observational skills and experimentation is encouraged through the assignments. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None

VCA 125, Typography I Division: Humanities
This course serves as an introduction to typographic history, letterforms, mechanics, terminology and usage. Students will explore the fundamental and technical aspects of this abstract art including font selection and typesetting. As part of this course students will complete assignments that require the use of typographic software. Students are responsible for purchasing their own flash drive. Students will be required to purchase paper for printing assignments. Group 2 course. There is a $40 lab fee included in the cost for this course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: VCA 150 Co-Requisites: None
Recommended Prerequisites: Intermediate keyboarding skills, intermediate to advanced understanding of vector drawing, desktop publishing software and the Macintosh system.

NMC.
Find it here.

VCA 225, Visual Communications Studio
Division: Humanities
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WPT 260, Intro to Welding Automation
Division: Technical
This course provides students an opportunity to learn the theory behind common forms of automation utilized throughout the welding industry. Labs will focus on equipment set up and operations along with analysis of results. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: MFG 111, WPT 142
Co-Requisites: None Recommended Prerequisites: ENG 111

WPT 290, Welding Internship Division: Technical
The purpose of the internship is to provide on-the-job training for the student who wishes to pursue a career in welding field. The internship will be customized to meet the learning needs of the student and the job requirements of the student supervisor. Internship hours will be set up between the student, job supervisor and the instructor. Students will meet in the classroom periodically throughout the internship. Students participate in semi-monthly seminars. Students must apply one month prior to the semester in which they will complete the internship. Group course.
Credit Hours: 2 Contact Hours: 2
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: None
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WSI 212, Sonar for Marine Engineering
Division: Water Studies Institute
This course provides both classroom theory and hands-on practicum field operations performed individually and in groups. Emphasis areas include demonstrating techniques of sonar operations critical to sonar performance, sonar data collection and data interpretation for use in marine engineering surveys and underwater construction activities. Group 2 course.
Credit Hours: 2 Contact Hours: 3
Required Prerequisites: None Co-Requisites: None
Recommended Prerequisites: Prior use of sonar equipment in marine engineering applications.

WSI 215, Marine GIS & Data Processing
Division: Water Studies Institute
This course builds upon the basics of GIS taught in GEO 115. Introduction to GIS with ÐIRFXV RQ EDVLF VSDWLDO DQDO\sis techniques using standard and maritime/marine datasets. More advanced cartographic methods and spatial data management techniques are introduced using ArcGIS Desktop, Hypack, and other computer tools. Group 2 course.
Credit Hours: 3 Contact Hours: 4
Required Prerequisites: ENV 115 or GEO 115 with a 2.0 or better Co-Requisites: None Recommended Prerequisites: Students must have intermediate computer and internet skills, typically acquired in ENV115 or GEO115 or similar.

WSI 230, Water Policy & Sustainability
Division: Water Studies Institute
Division: Water Studies 192.0 G ä/Lac1 0 J Tm 0 0 rg 0 0 0 1 100.5 X 0 0 E BT 0 0 0 1 44.8 0 5 3 0 0 8 5 0 0 /MCI6C0044004C0050]TrC059C0044005 cs, EM

WSI 315, Advanced Marine Survey & Data
Division: Water Studies Institute
This course provides a foundation in the coordination of maritime surveys from a pre-deployment standpoint. Students will be expected to have a strong understanding of the remote sensing science including capabilities and limitations of the sensor systems to be used. A major focus of the course will be to develop skills for processing and merging marine and terrestrial datasets from a wide range of sources and systems. Significant time will be devoted to proper manipulation of data using commercial and free-

Transfer Credit Equivalences

Quarter credits or other units of credit transferred in will be converted to semester credits. To convert quarter hours, multiply the quarter hours by 2/3 to equate to semester hour. e converted quarter hours must equal the required semester credits for the purpose of satisfying graduation requirements.

Adding Classes

Courses are set up in sessions which vary by the number of weeks they meet (15-week, 8-week, 5-week, etc.). Students may add available courses up through the day before the session begins. Once the session begins, permission to add may be required from the Academic Chair or O ce Manager (not the instructor). Not all academic areas will allow registration after the session has started.

Dropping Classes

Students may o cially drop classes during the designated Registration/Add/Drop/Refund dates for the semester.

ese dates include a drop without record period which means the course will not be re ected on the o cial transcript, and a drop with record period which means a grade of "W" (Withdrawn) will be assigned to the course and noted on the o cial transcript. A grade of "W" will not a ect the NMC grade point average. It is the student's responsibility to

Grades

THE FOLLOWING ARE STANDARD GRADES AT NORTHWESTERN MICHIGAN COLLEGE:

4.0 - outstanding
3.5 - excellent
3.0 - good
2.5 - above average
2.0 - average
1.5 - below average
1.0 - de cient
0.0 - failed
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Harassment Policy

Northwestern Michigan College (NMC) prohibits sexual misconduct, which includes but is not limited to: rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, and domestic violence. Sexually violent acts, termed sexual misconduct by NMC are violations of NMC's Student Rights & Responsibilities, and can be crimes as well.

e College shall promptly and thoroughly investigate complaints of discrimination and/or harassment. Complaints of discrimination and/or harassment will be treated as con - dentially as possible. e College will conduct fair, thorough,

Faculty

Anderson, Kimberly K.
Health Occupations Instructor
D.C., National University of Health Sciences
M.S.N., Walden University
B.S.N., Grand Valley State University
A.A.S., Kalamazoo Valley Community College

Anderson, Michael W.
Communications Instructor
M.A., University of Colorado
B.A., Western Michigan University
A.A., Northwestern Michigan College

Bajema, David J.
Automotive Instructor
Master Automotive Technician (ASE)
Advanced Level Specialist (ASE)
Automobile Service Consultant (ASE)
Master Auto Mechanic, State of Michigan

Balbach, Lisa J.
Business Instructor
M.A., University of Minnesota
B.S.B., University of Minnesota

Beeker, Norman J.
Health Occupations Instructor
M.S., Miami University
M.S.N., Gonzaga University
B.A., Michigan State University
A.D.N., Northwestern Michigan College

Biolchini, John M.
Maritime Instructor
Licensed Merchant Marine O cer (MMC)
B.S., A.A.S., Northwestern Michigan College

Blackford, Lisa A.
Social Sciences Instructor
M.S.W., Michigan State University
B.S., Lake Superior State University

Bloomquist, Cheryl M.
Social Sciences Instructor
M.A., Michigan State University
B.S., Western Michigan University

Butler, Nathan A.
Science/Math Instructor
M.S., e University of Vermont
B.S., Ferris State University
A.S.A., Northwestern Michigan College

Chu, Judy Y.
Communications Instructor
M.A., University of Chicago
B.A., University of California, Los Angeles

Coleman, Tamara C.
Science/Math Instructor
Ph.D., Western Michigan University
M.S., Michigan State University
B.A., Calvin College

DePauw, Devan M.
Welding Instructor
B.S., A.A.S., Ferris State University
A.L.A., Oakland Community College

Dobek, Gerald O.
Science/Math Instructor
M.Sc. (Hons.) University of Western Sydney
B.S., Trinity College
B.S., Ferris State University
A.A., A.S., Northwestern Michigan College

Dohm, Lisa M.
Communications Instructor
Ed.D., S.Ed., M.A., Central Michigan University
M.A., B.A., Michigan State University

Drake, Stephen D.
Science/Math Instructor
M.A., Kansas State University
M.S., University of Wyoming
B.S., Northwest Missouri State University

Elliott, Mary Jo
Science/Math Instructor
Ed.M., State University of New York
B.S., Michigan Technological University

Emerson, Michael P.
El204.7301 504.8118 Tm ( )Tj EMC ET BT 8.5 0 0 8.5 218.7296 504.8118 Tm (B)Tj (d)-16 (.)-18.3 (M

McKee, Carole
Health Occupations Instructor
M.S., University of Michigan
B.S.N., e University of Akron

Mills, Briana
Science/Math Instructor
M.S., Portland State University
M.A., B.S., Central Michigan University

Minor, Benjamin T.
Maritime Instructor
Licensed Merchant Marine O cer (MMC)
B.S., University of Oregon
A.A.S., Northwestern Michigan College

Nelson, James D.
Science/Math Instructor
M.A., University of Idaho
B.S., Ferris State University
A.A., Northwestern Michigan College

O'Connor, Michael J.
Technical Instructor
B.S., Michigan Technological University

Owens, Jay Barcley
Communications Instructor
Ph.D., Washington State University
M.A., B.A., Central Washington University

Papcun, Joel
Culinary Arts Instructor
Certi ed Culinary Educator (CCE)
Certi ed Executive Chef (CEC)
Certi ed Chef de Cuisine (CCC)
A.AP.S, Schoolcraft College

Parshall, Nancy J.
Communications Instructor
M.Ed., Temple University
B.A., Albion College

Peplinski, Nathan G.
Science/Math Instructor
Ph.D., B.S., Western Michigan University

Pflughoeft, John R.
Science/Math Instructor
M.S., University of Wisconsin
B.S., Colorado State University

Pharo, Debra A.
Science/Math Instructor *ehraan State University*
M.A., University of Northern Colorado
B.S., Texas A&M University

Powell, Scott
Maritime Instructor
Licensed Merchant Marine O cer (MMC)
M.S., SUNY Maritime College
B.S. Florida State University
A.A.S., Northwestern Michigan College

Rice, Steven H.
Business Instructor
M.A., Wheaton College
M.S., Boston College
B.S., University of Delaware

Richardson, Rebecca A.
Science/Math Instructor
M.A.T., University of Idaho
B.S., Ferris State University

Roster, Nicholas O.
Science/Math Instructor
Ph.D., Oklahoma State University
M.S., Central Michigan University
B.A., Alma College

Ruane, Sean E.
Social Sciences Instructor
M.A., Pepperdine University
B.A., State University of New York
A.A.S., Onondaga Community College

Salathiel, Kristen M.
Communications Instructor
M.A., Central Michigan University
M.A., B.A., University of Michigan

Schaefer-Hills, Caroline L.
Humanities Instructor
M.A., e Savannah College of Art and Design
B.F.A., Center for Creative Studies

Schroeder, Karl H.
Maritime Instructor
Licensed Merchant Marine O cer (MMC)
B.S., A.A.S., Northwestern Michigan College

Skarupinski, Michael T.
Culinary Arts Instructor
A.A.S., Oakland Community College

Slade, Jason S.
Technical Instructor
M.S., B.S., Michigan State University

Smith, Alexandra C.
Humanities Instructor
B.F.A., College for Creative Studies
B.A., Michigan State University

Smith, James
Science/Math Instructor
Ph.D., M.S., University of Michigan
B.S., Western Michigan University

Smith, Marjory M.
Communications Instructor
M.A., Michigan State University
M.A., University of Edinburgh

Smith, Shilo L.
Humanities Instructor
M.S., B.S., Idaho State University
A.A., College of Southern Idaho

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e following faculty members have retired with twenty or more years of service.

Mathis, Richard A.
Technical Instructor
Mayo, Claffee E.
Health Occupations Instructor
McCall, Brian D.
Humanities Instructor
M.A., B.S., Central Michigan University
McConnell, Gary J.
Social Sciences Instructor
B.A., Spring Arbor University
McCord, Regis R.
Social Sciences Instructor
M.S., B.A., California State University
McHugh, Hollianne A.
Technical Instructor
M.Ed., Grand Valley State University
B.S., University of Michigan
McKay, Grant E.

Sullivan, Johnathan J.
Science/Math Instructor
M.S., University of Arkansas
B.S., Michigan Technological University

Sweeney, Brian P.
Technical Instructor
M.Eng., Cornell University
B.S., United States Military Academy

Szczechowski, James
Science/Math Instructor
M.A., Eastern Michigan University
B.A., University of Michigan

Taberski, Carol J.
Business Instructor
M.B.A., Lake Superior State University
B.S., Ferris State University
A.A.S., Northwestern Michigan College

Taetsch, Michael
Maritime Instructor
Licensed Merchant Marine O cer (MMC)
A.A.S., Northwestern Michigan College

Tarczon, Philip G.
Humanities Instructor

Taylor, Preston L.
Social Sciences Instructor
B.A., Spring Arbor University
A.A.S., Northwestern Michigan College

Teeter, Metick V.
Maritime and Technical Instructor
M.Ed., Wayne State University
B.S., Ferris State University

Thiel, Angela L.
Health Occupations Instructor

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Jacobson, Renee R.
Director of Health Services
Licensed Family Nurse Practitioner (FNP)
M.S.N., Michigan State University
B.S.N., Northern Michigan University

Johnson, Jaquane
Residence Hall Manager

Johnson, Jessica
Financial Aid O ce Assistant
B.A., Michigan State University
A.S.A., Northwestern Michigan College

Johnston, Camille
Lead Accounting Assistant
A.S.A., Northwestern Michigan College

Jorgensen, Jackie
Counselor
M.A., Western Michigan University
B.A.A., Central Michigan University

Kahler, Karen L.
Associate Dean of Learning Services
Ph.D., M.A., B.S., Michigan State University

Kawula, Rorie A.
Admissions O ce Assistant
B.S., Ferris State University
A.S.A., Northwestern Michigan College

Kellman, Stephen A.
Coordinator of Web Content and Online Strategies
B.A., Colgate University

Kierczynski, Troy
Controller
B.A., Hope College

Klei, Amy L.
Programmer/Analyst
B.B.A., Western Michigan University

Kolak, Paul A.
Counselor
Licensed Professional Counselor (LPC)
M.A., Western Michigan College
B.A., Calvin College

Lange, Ken
Human Resources Specialist
B.B.A., Saginaw Valley State University

Lipke, Lindsey M.
Lead Accounting Assistant-Bookkeeper
B.S., Ferris State University
A.S.A., Northwestern Michigan College

Loeffler, Donald G.
Purchasing Manager
B.S.B., Ferris State University

Lutchko, John
Marine Technology Lab Coordinator
A.A.S., Northwestern Michigan College

Maison, Deborah L.
Advisor - Academic/Career
M.A.,Western Michigan University
B.A., Spring Arbor University

Malone, Kathryn M.
O ce Manager - Technical Academic Area
B.S., Lake Superior State University
A.A.S., A.B.A., Kirtland Community College

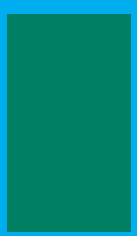
Martin, Paul A.
Analyst - Network Systems and Data Communications
B.S., DeVry University
A.A., Hillsborough Community College

Matchett, Laura
Director of Extended Education
M.A., B.A., Michigan State University

Mavis, Sarah E.
Assistant Bookstore Manager
B.A., Anderson University

McCall, Carleen A.
Campaign Coordinator
M.A., Teachers College Columbia University
B.A., Albion College

McCall, Cathy J.
Administrative Services Coordinator
B



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