

Career Pathway Guide

Transition and Access Program
NDSU

TAP Core Courses

<p>Year 1 Seminar 1 and 2 Employment Independent Living Campus Life</p> <p>Year 2 Seminar 3 and 4 Employment Independent Living Campus Life and Community Connection</p> <p>Year 3 Seminar 5 and 6 Employment Independent Living Community life and Campus connection</p>
--

NDSU Core Courses

<p>Year 1 UNIV 101 HNES 217 UNIV 189</p> <p>Year 2 CSCI 114 HDFS 186 HNES 111</p> <p>Year 3 COMM 110 HNES 217</p>

Entertainment, Athletics,
and Arts

Hospitality and Business
Management

Education and Childcare

Computer and
Engineering

Animal Science

Agriculture Science

Year 1
Art 120
MUSC
100

Year 2
Art 124
HNSE
100

Year 3
Art 180
THEA
110

Year 1
Bus 130
ADHM
140

Year 2
Bus 280
Acct 102

Year 3
ENTR
201

Year 1
Soc 110
Psych
111

Year 2
HDFS
230

Year 3
HDFS
350

Year 1
CSCI 114
ENGR
191

Year 2
ECE 111

Year 3
ECE 173

Year 1
ANSC
114
ANSC
165

Year 2
ANSC (f)
260
ANSC
260 lab

Year 3
ANSC
200

Year 1
ASM 125
PLSC
110

Year 2
ASM 234
PLSC
210

Year 3
ASM 374
PLSC
211

Agriculture Career Pathway

Course Descriptions

ASM 125. Fabrication & Construction Technology. 3 Credits.

Introduction to materials, methods, and tools used in fabrication, installation, and maintenance of agricultural production and processing facilities.

ASM 234. 3D Printing and Manufacturing. 2 Credits.

3D or Additive Manufacturing is quickly taking over the more traditional ways of making things through subtractive manufacturing methods. 3D printing is making more and more of the proto types, parts, and products we use every day in a quicker, more responsible way. This course will explore how 3D printing started, generative design, how to 3D print, and how is it currently being used in industry. Students in this class will utilize 3D printers, scanners, and laser cutters to gain hands on experience in the world of 3D manufacturing and tour local 3D companies to see real life manufacturing in progress.

ASM 374. Power Units Laboratory. 1 Credit.

Laboratory to complement concepts introduced in [ASM 373](#). Topics include engine systems, operation, adjustment, maintenance, repair, measurement, and testing.

PLSC 110. World Food Crops. 3 Credits.

Scientific principles of crop growth, worldwide production, management alternatives, and processing for domestic and international consumption.

PLSC 177. Floral Design I. 2 Credits.

History of floral design, care, handling, and identification of fresh cut flowers and dried materials. Use of tools, equipment, and supplies used in the industry and application of basic design styles, holiday designs, and displays. 1

PLSC 210. Horticulture Science. 3 Credits.

Principles of plant classification, structure, function, growth, propagation, culture, and use of horticultural crops. Covers vegetable and fruit production in the home garden, growing flowers and planting flower beds, and landscaping principles and materials.

PLSC 211. Horticulture Science Lab. 1 Credit.

Exercises in plant identification, propagation, nutrition, gardening, greenhouses, lawn care, landscape design, interior plants, pruning, and culture of horticultural crops.

NDSU Job Shadow Possibilities

Greenhouse pot cleaning	Greenhouse planting	NDSU field work
NDSU grounds and landscaping	NDSU extension 4-H	Soil Worker

Skills Sets Include

Collect Samples Follow Schedule Partial Physical Labor Problem Solving

Work in alternate weather conditions Basic knowledge of Numbers/ Math/Measuring

Career Options and Ideas

Farmhand	Seed Store	Elevator	Grain Sampler	Crop Insurance Co.	Seed Technician
Greenhouse	Planting Store	Home and Garden Store	Parks Ranger or Worker		

Animal Science Career Pathway

Course Descriptions

ANSC 114. Introduction to Animal Sciences. 3 Credits.

General principles of the livestock industry and relationships to mankind. 2 lectures, 1 two-hour laboratory.

ANSC 165. Animals and Human Health. 3 Credits.

Students will explore the intersection among human, animal, and environmental health within the One Health framework, emphasizing models of disability, the human-animal bond, and the impact of animal-assisted interventions at the personal and societal levels.

ANSC 260. Introduction to Equine Studies. 2 Credits.

Introduction to basic aspects of equine studies and general principles surrounding the horse industry. 2 one-hour lectures.

ANSC 260 lab

ANSC 200. Introduction to Anthrozoology. 3 Credits.

In this course students will be introduced to anthrozoology: the study of the interactions and relationships between humans and non-human animals. In this class we will explore the roles that non-human animals play in human society, considering the benefits that we humans receive and the responsibilities we have toward other species. Research findings involving human-animal interactions will be explored.

NDSU Job Shadow Possibilities

Equine barns animal care	Swine barn stable care	Cattle barn stable care
Equine barn stable care	Sheep barn stable care	Cattle barn feeding
Equine barn horse riding	Plant science student lab position	Milk barn data collection

Skills Sets Include

Understanding of time Ability to manage multi-sensory modes (sight/smell/touch)

Follow schedule Enjoy a variety of Animals Partial physical labor

Career Options and Ideas

Zoo Caretaker	Dog Walker	Animal Husbandry	Groomer	Pet Smart	Aquarium Store
Pet Co	Farm Hand	Doggy Daycare	Veterinary clinic support	Animal rescue	Stable Manager

Computer and Engineering Career Pathway

Course Descriptions

CSCI 114. Computer Applications. 3 Credits.

General introduction to computer concepts, operating systems, the internet, word processing, spreadsheets, database management, and presentation software

ECE 111. Introduction to Electrical and Computer Engineering. 3 Credits.

Introduction to electrical and computer engineering problem solving, design and professional issues.

ECE 173. Introduction to Computing. 4 Credits.

Programming in a high-level language with applications to engineering computation, analysis, and design.

ENGR 191. Introduction to Engineering. 1 Credit.

Designed to provide general engineering students with an opportunity to review, study, discuss, and evaluate various engineering professions as career choices

NDSU Job Shadow Possibilities

Engineering Dept office support	Practicum hours	Lab work
NDSU IT	AV Tech Student	Data Entry

Skills Sets Include

Knowledge of computers

Understanding of numbers

Match data lines

Be on time

Reliable

Keep workspace clean

Work as a team member

Career Options and Ideas

Computer Technician	Computer Programmer	Office Assistant	Best Buy	Computer Programmer	IT assistant in schools
Computer Helpdesk Assistant	Game Developer	Web Developer	Software Developer	System Engineer	Technology Company

Education and Childcare Career Pathway

Course Descriptions

SOC 110. Introduction to Sociology. 3 Credits.

Introductory analysis of the nature of society, the interrelationship of its component groups, and the process whereby society persists and changes.

PSYC 111. Introduction to Psychology. 3 Credits.

Survey of the scientific study of behavior and mental processes.

HDFS 230. Life Span Development. 3 Credits.

Study of human growth and development throughout the life span.

NDSU Job Shadow Possibilities

Childcare Center	Wellness Center	Library Resources
Teacher Ed Prep support		

Skills Sets Include

Enjoy children

Handle Multi Stimulus

Enjoy Cleaning

Patient

Flexible in schedule

Crafts/Music

Reliable

Career Options and Ideas

Paraprofessional	Daycare Assistant	Book Store	Library	Children Camp	Youth Group
School Custodian	Babysitting	Lunch Supervisor	Recess Supervisor	School Security	Direct Support Professional

Entertainment, Arts, and Athletics Career Pathway

Course Descriptions

ART 120. Painting I. 3 Credits.

Introduction to basic painting through a variety of materials. Includes historical examples, painting the human figure, using acrylics, oils, pastel, and mixed-media.

ART 124. Foundations of Design. 3 Credits.

Foundations of Design is an introductory course that provides a comprehensive study of design elements and principles for work in two and three-dimensions.

ART 180. Photography I. 3 Credits.

Introduction to basic photography. Includes visual issues of black and white and color photography. Experience with black and white processing and printing.

THEA 110. Introduction to Theatre Arts. 3 Credits.

Basic orientation and historical perspective to the art of theatre. Includes the spectrum of dramatic literature, theatrical production, and performance.

MUSC 100. Music Appreciation. 3 Credits.

Understanding and appreciating musical styles and composers with some emphasis on the relationship of music to concurrent social and artistic trends. Designed for non-music majors.

HNES 110. Introduction to Health and Physical Education. 3 Credits.

This course will acquaint students with historical insights and current trends in the fields of health and physical education. Students will also identify various career opportunities within their field of study and acquaint themselves with the professional field.

NDSU Job Shadow Possibilities

Sport team Manager	NDSU band and choir	Radio Station support
Student Athletics Equipment	SHAC event staff	Wellness center
Theater Position	Memorial Union Gallery	NDSU spectrum

Skills Sets Include

Energetic

Positive

Enjoys being with people

Creative

Outgoing

Self-Motivated

Career Options and Ideas

Museum Office	Art Classes volunteer	Donation Collection	Food Pantry	Fitness Centers	Movie Theater
Newspaper	TV station	Radio Station	Work for Sports Team	Marketing	

Hospitality and Business Management Career Pathway

Course Descriptions

BUSN 130. Basic Skills in Leadership and Personal Marketing. 3 Credits.

This course challenges students to begin the process of developing their leadership abilities and then developing the skills to promote their ideas and persuade others in personal and professional contexts. Grounded in an understanding of the art of leading and influence in various cultures and professions, students will assess their own leadership characteristics, analyze and reflect on leadership in everyday life, and then develop a plan and skills to persuasively present themselves and ideas to others, both personally and professionally.

ADHM 140. Introduction to the Hospitality Industry. 3 Credits.

Overview of the hospitality industry; its history, components, career opportunities, development, and future trends with application to food service, lodging, and travel.

BUSN 280. Introduction To Business. 3 Credits.

This course provides an overview of the environment of business, legal forms of business, and the major functional areas of business including management, marketing, accounting, and finance.

ACCT 102. Fundamentals of Accounting. 3 Credits.

Introduces financial statements and other accounting information to make personal and business decisions.

ENTR 201. Introduction to Entrepreneurship. 3 Credits.

Business majors and minors, non-business majors, and non-degree seeking students will receive an introduction to the entrepreneurial process, evaluating the market feasibility of new product and business ideas, and launching an entrepreneurial venture. Students will develop an understanding of the business concept and business model. Students will analyze social structures that predict human behaviors and affect consumer decision making, through practical hands-on exercises.

NDSU Job Shadow Possibilities

Dining Center	Memorial Union	Business Center Intern
One Stop Intern	Student Activities Intern	

Skills Sets Include

Creative Good Interpersonal Skills Outgoing Organized

Good with numbers Enjoy Tasks Work as a team

Career Options and Ideas

Hotel Housekeeping	Hotel Front Desk	Host/Hostess	Front Desk Attendant	Event Server	Sales Person
Human Resource Assistant	Food Server	Special Events Assistant	Event Coordinator		