Ohio Transfer Module:

Ohio Transfer Module (OTM) Requirements: 36-40 semester hours. Students should select courses within the OTM that complement the selected major and meet any specific general education requirements. Students are encouraged to complete the OTM to ensure maximum transferability and application of credits.

<table>
<thead>
<tr>
<th>Required Disciplines</th>
<th>Minimum Required Hours</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I. English Composition</td>
<td>3 Semester Hours</td>
<td>Statistics (TMM010)</td>
</tr>
<tr>
<td>Area II. Mathematics</td>
<td>3 Semester Hours</td>
<td>Introduction/General Psychology (OSS015) and Introduction to Sociology (OSS021)</td>
</tr>
<tr>
<td>Area III. Arts &amp; Humanities</td>
<td>6 Semester Hours</td>
<td>A year sequence in General Chemistry I &amp; II w/ labs (OSC023)</td>
</tr>
<tr>
<td>Area IV. Social Sciences</td>
<td>6 Semester Hours</td>
<td>Microbiology w/ lab</td>
</tr>
<tr>
<td>Area V. Natural &amp; Physical Science</td>
<td>6 Semester Hours</td>
<td>Anatomy w/ lab</td>
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<td>Physiology</td>
</tr>
</tbody>
</table>

Additional courses beyond the minimum required hours, from any of the disciplines listed above, will count toward the completion of the OTM (36-40 semester hours).

Major Courses – Hours/Courses listed below that count toward the major or pre-major requirements

| OHL016 – Basic Nutrition | Credits: 2 Semester Hours |
| OHL017 – Food Science w/ lab | Credits: 3 Semester Hours |
| OHL018 – Food Service and Management | Credits: 6 Semester Hours |

Transfer Assurance Guides Total Guaranteed Credits (Range)

<table>
<thead>
<tr>
<th></th>
<th>36 – 40 Semester Hours</th>
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<tbody>
<tr>
<td>Ohio Transfer Module (OTM)</td>
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</tr>
<tr>
<td>Pre-major/Major</td>
<td>0 – 11 Semester Hours</td>
</tr>
</tbody>
</table>

Institutional Requirements: For entrance and graduation, a transfer student must meet all institutional requirements which would include, but may not be limited to: minimum grade point average, residency requirements, upper division credits attained, minimum grades in specific courses, performance requirements (ex. dance, music) and other requirements of native students from the same institution.
OHL016 – Basic Nutrition  
2 Semester Hours  

Pre-Requisite: None  

Related TAG: Dietetics  

General Course Description:  
Basic concepts and principles in the science of human nutrition, macro- and micronutrients, essentials of an adequate diet across the lifespan, nutrition related metabolism and physiological functions, and relationship of food and the environment to physical well-being.

Content Areas  
Fundamentals of nutrition & metabolism  
Assessment of nutritional health risks  
Influence of socioeconomic, cultural & psychological factors on food & nutritional behavior  
Health promotions & disease prevention theories  
Complimentary, alternative nutrition & herbal therapies  
Dietary supplements  
Influence of age/growth/normal development on nutrition requirements  

Student Learning Outcomes marked with an asterisk (*) are considered essential and must be covered:  

1. Identify basic physiology, dietary requirements and major food sources of carbohydrates, proteins, fats, vitamins and minerals.*  
2. Evaluate diet patterns and health risks associated with inadequate/excessive nutrient intake.*  
3. Discuss the influence of socioeconomic, cultural, psychological, and environmental (i.e. sustainable agriculture, organic farming, and locally produced foods) factors on food intake and eating behavior.*  
4. Explain how food intake has a significant relationship to health and the role of diet in health promotion and prevention of chronic diseases.*  
5. Describe current complimentary, alternative nutrition and herbal therapies and current scientific knowledge as to their efficacy.  
6. Identify the role of dietary supplements in a balanced diet.  
7. Develop an awareness of the nutrient needs for various stages of the life cycle.*  

Note: 70% of learning outcomes must be included in the course. If only the required objectives are met, the course meets 71% of the learning objectives.
OHL017 – Food Science with Lab
3 Semester Hours

Pre-Requisite: None

Related TAG: Dietetics

General Course Description:
Introduction to the science of foods in relation to chemical composition, nutritional value, processing methods, quality, safety, and standards of identity through the use of experimentation and research.

Content Areas
Food Technology
Culinary Techniques
Basic Food Safety
Food and Nutrients Laws/Regulations/Policies
Applied Sensory Evaluation of Food
Apply Food Science Knowledge to Functions of Ingredients in Food
Apply Microbiological and Chemical Considerations to Process Control

Student Learning Outcomes marked with an asterisk (*) are considered essential and must be covered:

1. Apply basic skills in the preparation of foods while considering optimization of nutrient value and retention, sensory qualities and microbiological safety.*
2. Describe the physical and chemical interaction of food components during processing and preparation, which influence sensory and nutritional qualities of foods.*
3. Apply experimental research procedures to test, compare and evaluate food products in relation to expected characteristics of the product.*
4. Identify product development trends and technologies in the food industry.*
5. Identify the role of the government in regulating food quality, safety, and marketing practices.
OHL018 – Food Service and Management
6 Semester Hours

Pre-Requisite: None

Related TAG: Dietetics

General Course Description:
Study of the functions of management principles and procedures in institutional or commercial food services including human and physical resources, food service design and layout, production and fiscal controls, marketing, menu planning, and food safety. Incorporates Quantity Food Production, Food Service Management and Food Safety and Sanitation.

Content Areas (Common to All)
Food Delivery Systems
Food Production systems
Food and Non-Food Procurements
Program Planning/Monitoring and Evaluation
Facility Management
Materials management
Financial management (including accounting principles)
Quality Improvement
Information Management
Systems Theory
Marketing Theory and Techniques
Diversity Issues
Menu Planning
Human Resource Management (including labor relations)

Content Areas (Common to Some)
Food Safety and Sanitation
Environmental Issues/Services Related to Food
Strategic Management
Organizational Change Theory
Risk Management
Management Theory

Student Learning Outcomes marked with an asterisk (*) are considered essential and must be covered:
1. Demonstrate an understanding of and describe the relationships of foodservice systems and apply principles of food service management, including:
   1.1 Application of principles of menu planning, procurement, receiving, storage and food preparation to quantity food production and service for a variety of settings
   1.2 Methods for evaluating and controlling quality and quantity of food items produced and served in foodservice systems
   1.3 Development and preparation of menus for quantity production
   1.4 Utilization of cost and quality control methods in quantity food planning
2. Demonstrate appropriate sanitation and safety principles in an institutional setting.
3. Evaluate kitchen design, equipment, and tools to improve work flow and efficiency of operation in quantity food production and service areas.
4. Identify and apply nutrition and management principles to food production and food service, and food service organizations.
5. Participate in performance and quality improvement, customer satisfaction, and outcomes development for clinical and customer service.
6. Apply marketing concepts to foodservice management.
7. Describe the current trends and the regulations of foodservice systems within schools, corrections, universities, and health care systems
8. Identify a variety of management tools which assist with the performance of organizations including organizational charts; job analysis, job descriptions, work schedules, policies and procedures, financial reports/budget, and productivity measures.
9. Describe classic functions of management – planning, organizing, decision-making, staffing (recruiting, interviewing, selecting, hiring, orienting, developing), directing, and controlling – and their use by an effective health care supervisor.

Note: 70% of learning outcomes must be included in the course. If the required objectives plus one non-required objective are met, the course meets 77% of the learning objectives.


TMM010 – Introductory Statistics (Updated December 8, 2015)
Typical Range: 3-4 Semester Hours

This description is intended to apply to a range of introductory courses, from highly conceptual to more traditional presentations. It is assumed that technology is used (calculators, computer packages, or web application software) to minimize involved computations.

This is a course of study that stresses conceptual understanding and critical thinking and introduces statistical methods to college students in all disciplines. The American Statistical Association has developed a set of six recommendations for the teaching of introductory statistics – these recommendations are known as the “Guidelines for Assessment and Instruction in Statistics Education (GAISE),” which are strongly recommended in teaching or developing the introductory statistics course.

The recommendations are as follows:

1. Emphasize statistical literacy and develop statistical thinking;
2. Use real data;
3. Stress conceptual understanding, rather than mere knowledge of procedures;
4. Foster active learning in the classroom;
5. Use technology for developing conceptual understanding and analyzing data; and
6. Use assessments to improve and evaluate student learning.

To qualify for TMM010 (Introductory Statistics), a course must achieve all of the following essential learning outcomes listed in this document (marked with an asterisk). The Sample Tasks are recommendations for types of activities that could be used in the course.

The successful Introductory Statistics students should be able to:

1. Summarize univariate and bivariate data by employing appropriate graphical, tabular, and numerical methods and describe the attributes of or relationships between the data. These may include (but are not limited to): frequency distributions; box plots; scatter plots; correlation coefficients; regression analysis; and measures of center, variation, and relative position.*

2. Identify the characteristics of a well-designed statistical study and be able to critically evaluate various aspects of a study. Recognize the limitations of observational studies and common sources of bias in surveys and experiments. Recognize that association is not causation.*
3. Compute the probability of compound events, independent events, and disjoint events, as well as conditional probability. Compute probabilities using discrete and continuous distributions, especially applications of the normal distribution.*

4. Explain the difference between statistics and parameters, describe sampling distributions, and generate sampling distributions to observe the Central Limit Theorem.*

5. Estimate population parameters using point and interval estimates and interpret the interval in the context of the problem. Summarize the relationship between the confidence level, margin of error, and sample size.*

6. Given a research question, formulate null and alternative hypotheses. Describe the logic and framework of the inference of hypothesis testing. Make decision using p-value and draw appropriate conclusion. Interpret statistical significance and recognize that statistical significance does not necessarily imply practical significance. Perform hypothesis testing with at least one test related to quantitative variable (e.g. t-test for mean, test for linear correlation) and at least one test related to qualitative variable (e.g., test for one population proportion and chi-square test for independence).*

7. Throughout this course, students should be given the opportunity to interpret statistical results in context when statistical information is presented in news stories and journal articles.*
OSS015 – Introduction to Psychology (Updated October 20, 2016)
3 Semester Hours

**Pre-Requisite:** None

**Suggested Textbook Topics:**
Any standard introductory psychology textbook should balance research and application, which includes these major areas of psychology: methods, biology, memory, learning, lifespan development, social, personality, and abnormal.

**Related TAGs:** Dietetics, Psychology, Social Work

**General Course Description:**
Survey course which examines the complex individual, the many factors believed to drive the individual, and the resulting behavior. Application of the scientific method as a tool in the discovery of individual functioning.


**Student Learning Outcomes marked with an asterisk (*) are considered essential and must be met.**

**Learning Outcomes:**

1. Describe psychological theories, principles, and concepts relevant to the following topics* (A minimum of two topics under each pillar must be met including the essential topics marked with an asterisk):
   a) Pillar 1: Biological (Biology of Behavior*, Sensation, Consciousness)
   b) Pillar 2: Cognitive (Memory*, Cognition, Perception, Intelligence)
   c) Pillar 3: Developmental (Learning*, Lifespan Development*, Language)
   d) Pillar 4: Social and Personality (Social*, Personality*, Emotion, Multicultural, Gender, Motivation)
   e) Pillar 5: Mental and Physical Health (Abnormal*, Health, Therapies)

2. Describe and evaluate various methodologies used in psychological research.*

3. Apply basic psychological principles to human history, current events, and daily human experience.*

4. Recognize diversity and individual differences and similarities (e.g., gender, ethnicity, race) in a variety of contexts.*

5. Assess and critically analyze theories, research methods and findings (outcomes), and applications developed by psychologists and made available through textbooks, newspapers, professional and lay periodicals, and the Internet.*

6. Recognize ethical considerations as applied to conducting research and professional conduct.

OSS021 Introduction to Sociology (Updated December 12, 2016)
3 Semester Hours

Related TAGs: Geography, Sociology

General Course Description:
Introduction to the theoretical foundations and methods used to gather, interpret, and evaluate data in sociology. Insight into how society is organized by focusing on the structure and function of social institutions, the impact of culture and socialization on individuals and groups, and systems of stratification among various racial and ethnic, social class, gender and sexuality groups.

Advising Notes: For guaranteed transfer and application of other sociology TAG courses, this course will be a prerequisite required at receiving institution before the other sociology courses can be applied to the major.

Statewide Learning Outcomes:
A minimum of 70% of the Student Learning Outcomes must be met including the essential learning outcomes marked with an asterisk (*).

Students should be able to demonstrate an understanding of:
1. The sociological perspective, the theoretical foundations (Functionalism, Conflict, and Symbolic Interactionism), and the contributions of major theorists to the development of these perspectives.*
2. The ways in which sociologists gather, interpret, and evaluate data, including both quantitative and qualitative methodologies.*
3. The impact of culture and socialization on shaping human behavior and world view.*
4. The elements of social structure and the organization of society.*
5. The major theories of crime, deviance, and systems of social control.
6. Systems of stratification in the United States and globally, including racial stratification, social class, sexuality and gender stratification.*
7. The major social institutions, such as marriage and the family, religion, politics, the economy, health care, and/or education.
8. Additional topics such as population, urbanization, the environment, aging, war/terrorism, and major theories of social change.
OSC023 – General Chemistry I and II Course Sequence (Revised 9/30/2016)  
(A Combination of OSC008 and 009)  
8-10 Semester Hours

OSC008 – General Chemistry I (with Lab)  
4-5 Semester Hours  
Prerequisite: Proficiency with algebra

Suggested Textbook Topics: Lecture to include a standard modern general chemistry text designed for a full-year sequence of general chemistry for science majors

Related TAGs: Biology, Bioengineering, Chemical Engineering, Chemistry, Geology, Physics

General Course Description:  
An introduction to the fundamental principles of chemistry, including measurement and calculation; chemical stoichiometry; the properties of gases; atomic and molecular structure; bonding; thermochemistry; and periodic properties.

Note: These core competencies were aligned with the American Chemical Society (ACS) recommendations in mind. All experimental chemistry lab work must be performed in a traditional hands-on lab setting, and will build on topics covered in the corresponding lecture course.

Students must be proficient in all of the following core competencies:  
1. Significant figures  
2. Fundamental structures of atoms and molecules  
3. Nomenclature  
4. Principles of ionic, covalent and metallic bonding, including Lewis structure, hybridization, and valence bond and molecular orbital theories  
5. Stoichiometry  
6. Chemical reactions (acids and bases, oxidation-reduction, precipitation, etc.)  
7. Solutions and concentrations  
8. Thermochemistry  
9. Electronic configuration and atomic orbitals  
10. Elemental classification and periodicity  
11. Behavior of gases  
12. Societal applications of chemistry  
13. Chemical problem solving using algebraic methods
Lab Course:

Students must be proficient in all of the following core competencies:

14. Analytical and preparative skills
15. The ability to effectively collect, analyze and report data
16. Safe laboratory practice
OSC009 – General Chemistry II (with Lab)
4-5 Semester Hours
Prerequisite: General Chemistry I (OSC008)

Suggested Textbook Topics:
Lecture to include a standard modern general chemistry text designed for a full-year sequence of general chemistry for science majors

Related TAGs: Biology, Bioengineering, Chemical Engineering, Chemistry, Geology

General Course Description:
A continuation of the study of the principles of chemistry, including solution properties; acids and bases; chemical equilibrium; thermodynamics; reaction kinetics; and electrochemistry

Note: These core competencies were aligned with the American Chemical Society (ACS) recommendations in mind. All experimental chemistry lab work must be performed in a traditional hands-on lab setting, and will build on topics covered in the corresponding lecture course.

Students must be proficient in all of the following core competencies:
1. Intermolecular forces and phase changes
2. Solutions and colligative properties
3. Chemical kinetics
4. Chemical equilibrium
5. Acid-base and solubility equilibria
6. Thermodynamics (including entropy and free energy)
7. Electrochemistry
8. Descriptive chemistry, including chemical properties and periodic patterns of reactivity
9. Societal applications of chemistry
10. Chemical problem solving using algebraic methods

Lab Course:

Students must be proficient in all of the following core competencies:
11. Analytical and preparative skills
12. The ability to effectively collect, analyze and report data
13. Safe laboratory practice
### DIETETICS TAG
### FACULTY PARTICIPANTS
### July-September 2017

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<tr>
<th>Name</th>
<th>Institution</th>
</tr>
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<td>Youngstown State University</td>
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# DIETETICS TAG
## FACULTY PARTICIPANTS

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<th>Name</th>
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<td>Youngstown State University</td>
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<tr>
<td>Vicki Huntsman</td>
<td>Zane State College</td>
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