## Program Level Learning Outcomes

Students will be able to:

1. Demonstrate oral and written communication skills that clearly and persuasively convey ideas, analysis and conclusions
2. Interpret and further the NDNU Mission
3. Develop a comprehensive career/continuing education plan with at minimum one contingency plan
4. Demonstrate understanding of core knowledge and influencers of human health and illness
5. Apply learning, critical thinking, scientific method, literature synthesis, and analytic skills (quantitative and qualitative) to solve problems

### Curriculum Map

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<thead>
<tr>
<th></th>
<th>PLO 1 Demonstrate oral and written communication skills</th>
<th>PLO 2 Interpret and further the NDNU Mission</th>
<th>PLO 3 Develop a comprehensive career and/or continuing education plan</th>
<th>PLO 4 Demonstrate understanding of core knowledge and influencers of human health and illness</th>
<th>PLO 5 Apply learning, critical thinking, scientific method, literature synthesis, and analytic skills to solve problems</th>
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<tbody>
<tr>
<td>BIO XXXX Intro to Health or KIN 2110 Wellness and Stress</td>
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<tr>
<td>BIO 1004(L), Hum Bio w Lab or BIO 1103(L) Gen Bio II w Lab</td>
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<td>BIO 2250, Health Care Careers</td>
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<td>CHE 1202(L), Gen Chem I w Lab or CHE 1886(L), GOB w Lab</td>
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<td>PSY 2150, Lifespan Dev</td>
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<td>BIO XXXX(L), Anat &amp; Phys I/II w Lab</td>
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<tr>
<td>BIO XXXXW, Health &amp; Illness</td>
<td>P/M</td>
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<td>Electives (many are CBL courses)</td>
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<td>MTH 2502(L), Stats w Lab or MTH 1225 (L), Stats for Bus w Lab</td>
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<td>BIO XXXX(L), Epi Lab or PSY 2109W, Research Meth or BUS 2304</td>
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*Note: I = Important, P = Possible, P/M = Possible/Minimal*
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<tr>
<th>BIO XXXW, Capstone Planning</th>
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<tr>
<td>BIO XXXX, Bio Sci Cap or BIO 2884, Research or BIO 2997, Honors Research or BUS 2990C, Bus Internship or CUL 2500, Span Com Project or NSC 2880, Env Health Capstone</td>
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*I = Introduced*  
*P = Practiced*  
*M = Mastered*
### ASSESSMENT PLAN

#### PROGRAM LEARNING OUTCOMES (PLOs)

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<thead>
<tr>
<th>PLO 1</th>
<th>PLO 2</th>
<th>PLO 3</th>
<th>PLO 4</th>
<th>PLO 5</th>
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<td>Demonstrate oral and written communication skills</td>
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<td>Construct a comprehensive career/continuing education plan</td>
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#### ASSESSMENT PLAN (COURSES AND INSTRUMENTS)

<table>
<thead>
<tr>
<th></th>
<th>Intro to Health course (1st year for a baseline)</th>
<th>Capstone Project Planning course</th>
<th>Health Care Careers course</th>
<th>Intro to Health course (1st two years) AND Anatomy &amp; Physio I course (3rd and 5th year)</th>
<th>Capstone course</th>
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<tbody>
<tr>
<td>Assessment:</td>
<td>Rubric applied to final paper and presentation</td>
<td>Assessment: Rubric applied to course paper</td>
<td>Assessment: Rubric applied to career strategic and action plan</td>
<td>Assessment: Final exam questions</td>
<td>Assessment: Rubric applied to final paper</td>
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#### ASSESSMENT TIMING

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#### PLO 1: Demonstrate oral and written communication skills

**I. Planned Signature Assignment**

The signature assignment for this PLO in 2015-16 will be a paper for the Introduction to Health course offered to freshman in the first year of the major. The signature assignment for this PLO in 2018-19 and 2019-20 will be the final paper and presentation for the Capstone course. The major will not be accepting non-freshmen students until Fall 2016, so the assessment of the Capstone must be delayed until about 2018-19.
II. Individuals Responsible for Assessment
The instructor of the Introduction to Health course will be responsible for the assessment of the paper in 2015-16. The Program Director will be the primary person responsible for the assessment of the capstone work. During the assessed years of the course, the Program Director will view the student's work, apply the rubric, report the results, and follow up with concerned faculty about the results and lead a discussion about next steps for improvement. This will create consistency in applying the rubric across what could potentially be multiple capstone courses, and provide the opportunity to assess whether the outcomes are satisfactory for our students and program.

III. Planned Assessment Methods
A rubric will be used to score the student’s ability to clearly and persuasively convey ideas, analysis and conclusions.

IV. Expected Levels of Achievement
The average score on the Introduction to Health paper is expected to be about 50% of the top rubric score possible, as the students will be freshmen. Each student is expected to achieve a score of at least 70% of the top score on the rubric for each item that is assessed when scoring the capstone.

V. Review and Action
The Program Director will review the outcome data with concerned faculty and lead a discussion about next steps for improvement if changes need to be made to the program. The Program Director will be responsible for following up with appropriate faculty if necessary to carry out next steps, and reviewing assessment results and next steps during the end-of-year departmental meeting.

VI. Retention and Use of Assessment Results
Results of the assessment will be kept by the Program Director and used for comparison and consistency in scoring over time. PLO scores will be followed through time to determine the overall effectiveness of the program and level of student development, and to make necessary adjustments in the program.

PLO 2: Interpret and further the NDNU Mission

I. Planned Signature Assignment
The signature assignment for this PLO is the course paper in the Capstone Project Planning course, which includes a student reflection about the NDNU Mission. The major will not be accepting non-freshmen students until Fall 2016, so the assessment of this upper-division course must be delayed until about 2017-18.

II. Individuals Responsible for Assessment
The course instructor will be the primary person responsible for the assessment and reporting of the PLO results to the Program Director.

III. Planned Assessment Methods
A rubric will be used to score the student’s a reflection on how the planned capstone project will deepen the student’s fulfillment of the NDNU Mission and ILOs, including the student’s
knowledge, skills and career and continuing education prospects. The rubric will be used to score the student’s understanding of and plan to further the NDNU Mission.

IV. Expected Levels of Achievement
Each student is expected to achieve a score of at least 70% of the top score on the rubric for each item that is assessed when scoring the capstone. Students will be expected to improve the paper to the expected level by applying the instructor’s feedback prior to enrolling in the capstone course.

V. Review and Action
The Program Director will review the outcome data with the instructor and concerned faculty and lead a discussion about next steps for improvement if changes need to be made to the program. The Program Director will be responsible for following up with appropriate faculty if necessary to carry out next steps, and reviewing assessment results and next steps during the end-of-year departmental meeting.

VI. Retention and Use of Assessment Results
Results of the assessment will be kept by the Program Director and used for comparison and consistency in scoring over time. PLO scores will be followed through time to determine the overall effectiveness of the program and level of student development, and to make necessary adjustments in the program.

PLO 3: Construct a developed career/continuing education plan

I. Planned Signature Assignment
Students complete a required career strategic and action plan, which will be the signature assignment for this PLO.

II. Individuals Responsible for Assessment
The course instructor will be the primary person responsible for the assessment and reporting of the PLO results to the Program Director.

III. Planned Assessment Methods
A rubric will be used to score the components of student’s career/continuing education and contingency plan.

IV. Expected Levels of Achievement
Each student is expected to achieve a score of at least 70% of the top score on the rubric for each item that is assessed when scoring the plan. Students will be expected to improve the plan(s) to the expected level by applying the instructor’s feedback prior to the end of the course.

V. Review and Action
The Program Director will review the outcome data with the instructor and concerned faculty and lead a discussion about next steps for improvement if changes need to be made to the program. The Program Director will be responsible for following up with appropriate faculty if necessary to carry out next steps, and reviewing assessment results and next steps during the end-of-year departmental meeting.

VI. Retention and Use of Assessment Results
Results of the assessment will be kept by the Program Director and used for comparison and consistency in scoring over time. PLO scores will be followed through time to determine the overall effectiveness of the program and level of student development, and to make necessary adjustments in the program.

**PLO 4: Demonstrate understanding of core knowledge and influencers of human health and illness**

I. Planned Signature Assignment
The signature assignment for this PLO in 2015-16 and 2016-17 will be exam questions in the Introduction to Health course offered to freshman in the first year of the major. The signature assignment for this PLO in 2018-19 and 2019-20 will be exam questions in the Anatomy and Physiology I course. The major will not be accepting non-freshmen students until Fall 2016, so the assessment of the PLO will need to start with a introductory level course.

II. Individuals Responsible for Assessment
The course instructor will be the primary person responsible for the assessment and reporting of the PLO results to the Program Director.

III. Planned Assessment Methods
The assessment method will be to determine the percent correct answers to the assessed 10 exam questions.

IV. Expected Levels of Achievement
The average student score (% correct out of 10 questions) is expected to be least 70%.

V. Review and Action
The Program Director will review the outcome data with the instructor and concerned faculty and lead a discussion about next steps for improvement if changes need to be made to the program. The Program Director will be responsible for following up with appropriate faculty if necessary to carry out next steps, and reviewing assessment results and next steps during the end-of-year departmental meeting.

VI. Retention and Use of Assessment Results
Results of the assessment will be kept by the Program Director and used for comparison and consistency in scoring over time. PLO scores will be followed through time to determine the overall effectiveness of the program and level of student development, and to make necessary adjustments in the program.

**PLO 5: Apply learning, critical thinking, scientific method, literature synthesis, and analytic skills to solve problems**

I. Planned Signature Assignment
The signature assignment for this PLO in 2018-19 and 2019-20 will be the final paper for the Capstone course. The major will not be accepting non-freshmen students until Fall 2016, so the assessment of the Capstone must be delayed until about 2018-19.

II. Individuals Responsible for Assessment
The Program Director will be the primary person responsible for the assessment of the capstone work. During the assessed years of the course, the Program Director will view the student’s work, apply the rubric, report the results, and follow up with concerned faculty about the results and lead a discussion about next steps for improvement. This will create consistency in applying the rubric across what could potentially be multiple capstone courses, and provide the opportunity to assess whether the outcomes are satisfactory for our students and program.

**III. Planned Assessment Methods**
A rubric will used to score the student’s level of learning, critical thinking, use of the scientific method, literature synthesis, and analytic skills to solve the addressed problem(s).

**IV. Expected Levels of Achievement**
Each student is expected to achieve a score of at least 70% of the top score on the rubric for each item that is assessed when scoring the plan.

**V. Review and Action**
The Program Director will review the outcome data with the instructor and concerned faculty and lead a discussion about next steps for improvement if changes need to be made to the program. The Program Director will be responsible for following up with appropriate faculty if necessary to carry out next steps, and reviewing assessment results and next steps during the end-of-year departmental meeting.

**VI. Retention and Use of Assessment Results**
Results of the assessment will be kept by the Program Director and used for comparison and consistency in scoring over time. PLO scores will be followed through time to determine the overall effectiveness of the program and level of student development, and to make necessary adjustments in the program.

9. Specification of whether the program plans, or is required, to seek accreditation by a professional/disciplinary agency. If so, include timeline and other accreditation requirements.

None required.

g. Activities--What is the time line for initiating, implementing, and evaluating the program?

1. Plans for publicizing the program (see also Marketing, below).

Admissions is excited to market the program as soon as it is approved. If approved in March, the Admissions team will be able to market it this spring and summer to perspective freshmen for a Fall 2015 start. This fall, marketing will begin to all perspective undergraduates for a potential Spring 2016 start for incoming freshmen, or Fall 2016 start for any interested student.

2. Methods for evaluating the program for continuance or termination.

Enrollment, enrollment growth rate, retention, student satisfaction, PLO performance, and graduation rates will be evaluated on an ongoing basis as data becomes
available. Enrollment in the major and the new courses will be the first metric to monitor. The strategic design of the major is to use almost all existing courses, which provides some leeway in terms of filling classes during the initial years. If new Health Science specific courses are not filling within 3 years, however, even with course cycling, that would be a reason to begin considering termination.

h. Facilities, Equipment, and Materials--What physical setting, hardware, and software will be needed for the program?

1. Facilities, equipment, technology, library collections, and materials currently available.

The same as for the other Natural Science majors.

2. Facilities, equipment, technology, library collections, and materials to be added or modified.

If the major grows the Department's enrollment significantly, then more of the same facilities, equipment, technology, and materials will be needed.

3. Impact of the program on current uses of facilities, equipment, and materials.

If enrollment grows, wear and tear on the current equipment will increase.

i. Staff--What personnel will be needed for the program?

1. Qualifications and responsibilities of personnel needed for the program.

We are currently searching for a FTET faculty member with the ability to teach Health Sciences and Biological Sciences courses.

2. Faculty and staff currently available.

As the major leverages current course offerings, current faculty will be utilized. Current faculty may be needed to lead the program, and it will add to the Department Chair’s responsibilities.

3. Faculty and staff to be added or reassigned.

Not as of yet.

4. Impact of the program on current assignment of faculty and staff.

Current faculty may end up teaching Health Sciences courses, which may necessitate others teaching some of their current courses. Advising and mentoring responsibility will also increase, but the new hire should be able to assist with the additional workload.

j. Impact--What demands on the other areas of the University will result from the program?
1. Other academic Departments and/or Schools.

Other departments may have fuller classes if students choose electives outside the department, but may also need to add sections which would burden them to find the instructors to do so.

2. Library and other learning resource centers.
3. Office of Admission.
4. Registrar's Office.
5. Advising and counseling services.
6. Financial aid services.
7. Student services and academic support to be added or modified.

(2-7) New students will impact utilization of all of the above.

k. Budget--How will the program be financed? Budget projections for the first five years of the program based on enrollment projections, including budget assumptions.

1. Revenues from tuition and fees.
2. Other revenues resulting from the program.
3. Costs for personnel, facilities, equipment, and materials.
4. Other costs resulting from the program.

(1-4) Discounted tuition, fees, room and board, parking, and food packages will have the most immediate impact on revenue. The below model does not consider the extra expenditures by students on campus, such as individual food and book store purchases, which would increase revenues if the University shares in those profits.

Future revenue potential may be explored such as grant opportunities, partnerships, geographic extension through an online program and/or satellite and online course offerings, and a Master's degree program(s).

The cost strategy is to leverage current course offerings to not only be up and running quickly, but also to optimize our current class sizes (fill current offerings, optimizing revenue and minimizing costs) and use of full-time faculty skill, as well as continue to build a sense of community amongst all Natural Science majors. In addition, new courses will be able to use current personnel, facilities, equipment, and materials as well, given the nature of the new and existing majors at NDNU. As a result, costs will be minimized, consistent with the NDNU strategic plan. Use of other resources such as the library, health services, disability and learning center services will come at a cost to the University but be offset by tuition and fees.

Adding a new major will require the addition of some field-specific coursework. Hence, some new courses will be developed and offered, requiring personnel, facilities, equipment, and materials. There has been a significant strategic effort to minimize these potential costs without compromising the major, as was done with the Kinesiology major implementation. There has also been a significant effort to only add new courses that can be leveraged by all majors, with potential to increase student satisfaction, and enrollment, retention, and graduation rates. It is not foreseen at this juncture that the "real" costs
associated with Health Sciences will be anymore than they were for Kinesiology, which has proven to be a sound investment.

It is estimated that the incremental costs associated with starting up and running the program over the next 5 years will be approximately $40,000 per year. This includes

<table>
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<tr>
<th>5 Year Incremental Enrollment, Revenue and Income Projections</th>
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<tbody>
<tr>
<td><strong>FT Enrollment</strong></td>
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<td>Revenue</td>
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<td>Cost</td>
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<td>Income</td>
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Assumptions to simplify projections:
1. Major opens to freshmen in Fall of 2015 and all students in Fall of 2016
2. Tuition discount rate, tuition, and fees remain the same
3. Estimate of students who enroll and persist because of the Health Sciences major, and who would otherwise not be enrolled at NDNU, ie. only incremental enrollment due to the major is accounted for
4. All student are full-time (not accounting for the additional PT students)
5. Each year, half of the FT students will live on campus and purchase a food plan

I. Marketing--How will the program be marketed?

1. What marketing strategies are required?

When promoting the Natural Sciences major, Health Sciences will be added to the mix as a major for those wanting a career in the health care industry that is not necessarily bench science research based. This will open it up to those interested in a career in a variety of health care industry sectors/industries, including pharmaceuticals, biotechnology, managed health care, medical equipment supplies and distribution, healthcare facilities, policy, regulation, services provider, practitioner, health promotion, preventive care, elderly living, pharmacy benefits management, insurance, research and development, etc.

2. Who will be responsible for marketing?

Like all majors, the entire NDNU community is responsible for marketing, from alumni, current students, faculty, to staff. The Admissions team and Program Director/Department Chair will be responsible for the detailed marketing message, creating the Catalog and Health Sciences major information sheet language and discussing the details of the major with potential students. Natural Science faculty will be shaping the product (curriculum and courses) and addressing the student experience.

3. What is the marketing timetable?

If the major is approved by the Board in March 2015, it can be marketed to incoming freshmen students during the Spring and Summer 2015 recruiting seasons. It would also be marketed to all perspective students from for a Fall 2016 start.