NAACLS Self-Study Template

Edited 11/2015 for Self-Studies submitted Spring 2016

Program Sponsor:	Ferris State University
Sponsor Type:	Sponsoring Institution
Program Type:	DMS
Program Location (City, ST):	Grand Rapids, MI

NAACLS DOCUMENTS YOU SHOULD DOWNLOAD PRIOR TO COMPLETING THIS SELF-STUDY:

- NAACLS Standards for Accredited and Approved Programs
- NAACLS Standards Compliance Guide

Introduction: Please provide a brief description of your program and how it is organized:

Ferris State University's Molecular Diagnostics program is a professional sequence that completes a Bachelor's of Science degree. The program is part of Ferris State University's College of Health Professions.

Students complete approximately two years of preparatory coursework before applying to the Molecular Diagnostics professional sequence. This preparatory coursework can be completed at Ferris State University or elsewhere, including at many community colleges.

The Molecular Diagnostics professional sequence includes two additional years of coursework and takes place in Grand Rapids, MI, where a dedicated laboratory is housed. Two full-time faculty members, Jacqueline Peacock, PhD, MB(ASCP)CM, and David Petillo, PhD, MT(ASCP) serve as instructors for the professional sequence courses. Dr. Peacock is the Program Director.

The bachelor's degree in Molecular Diagnostics includes Molecular Diagnostics, Biology, Chemistry, and Clinical Laboratory Science coursework, in addition to general education classes required by Ferris State University. The program requires a minimum of 124 credits for graduation. Students complete the program with a 12-week external internship at one of our 12 affiliate sites. These sites are varied in nature and include hospital based laboratories, research institutions, and private molecular laboratories, reflecting the multiple career paths available to our graduates.

Standard I.A: Sponsorship – Sponsoring Institution

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Ferris State University, an accredited post-secondary academic institution, is the sponsoring institution for this program. (1)

Accompanying Documentation for Self-Study (HOW TO ATTACH DOCUMENTS TO THIS TEMPLATE):

Documentation	Files
Provide copies of award letters and/or certificates as proof of sponsor accreditation	

Standard I.B: Sponsorship – Consortium Sponsor

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Provide copies of award letters and/or certificates as proof of sponsor accreditation	
Memorandum of understanding, as described in Standards Compliance Guide	

Standard I.C: Sponsorship – Multi-location Sponsor

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Provide copies of award letters and/or certificates as proof of sponsor accreditation	

Standard I.D: Sponsorship – Responsibilities of the Sponsor

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

1. Curriculum planning and course selection by program faculty is governed by the University's Academic Affairs policies (see policy at: http://www.ferris.edu/HTMLS/administration/academicaffairs/vpoffice/senate/univcurrcomm/uccmanualwforms10292015.pdf). New curriculum is proposed by faculty members and reviewed by the Department faculty, the College of Health Professions Curriculum Committee, and the University Curriculum Committee before implementation.

Faculty and staff appointments are funded by Ferris State University and made in accordance with University Human Resource policies and the Ferris Faculty Association contract.

Student transcripts and degrees are permanently retained by the Registrar at http://www.ferris.edu/admissions/registrar/.

The Molecular Diagnostics program faculty, staff, and students are governed by the University's general and laboratory health and safety policies, which can be found here:
http://www.ferris.edu/htmls/administration/buspolletter/bpl0007.htm
http://www.ferris.edu/HTMLS/administration/academicaffairs/labsafety/index.htm

The Program Director is a faculty member in the program and an employee of Ferris State University. She is responsible for ensuring that all accreditation standards are met. She is also responsible for reviewing students' graduation applications the semester prior to their intended completion of the program, in order to ensure they are eligible to receive their Bachelor's degree from Ferris State University upon program completion.

Accompanying Documentation for Self-Study: Attach items on next page(s)

Clinical (C)/Academic (A) Affiliate: *Please indicate (C) or (A) after name of affiliate*	Completed Clinical Facility Fact Sheet	Site Specific Objectives and Evals, Unique Rules, & Policies (I.D.2)	Documented ongoing communication between the sponsor and affiliate (I.D.3)	Signed Current Affiliation Agreement
American Proficiency Institute (C)		None		
Grand Valley State University (A)				
Michigan Blood HLA Laboratory (C)		None	As above for GVSU	
NxGEN MDx (C)		None	As above for GVSU	
Pathgroup, Inc (C)		None	As above for GVSU	
Progenity (C)		None	As above for GVSU	
South Bend Medical Foundation (C)		None	As above for GVSU	
ThermoFisher Scientific (C)			As above for GVSU	
University of Michigan Hospital (C)		None	As above for GVSU	
Van Andel institute (A)		  	As above for GVSU	
Arctic Medical Laboratory (C)		None		

Clinical (C)/Academic (A) Affiliate: *Please indicate (C) or (A) after name of affiliate*	**Completed Clinical Facility Fact Sheet**	**Site Specific Objectives and Evals, Unique Rules, & Policies (I.D.2)**	**Documented ongoing communication between the sponsor and affiliate (I.D.3)**	**Signed Current Affiliation Agreement**

Clinical (C)/Academic (A) Affiliate: *Please indicate (C) or (A) after name of affiliate*	**Completed Clinical Facility Fact Sheet**	**Site Specific Objectives and Evals, Unique Rules, & Policies (I.D.2)**	**Documented ongoing communication between the sponsor and affiliate (I.D.3)**	**Signed Current Affiliation Agreement**

Clinical (C)/Academic (A) Affiliate: *Please indicate (C) or (A) after name of affiliate*	**Completed Clinical Facility Fact Sheet**	**Site Specific Objectives and Evals, Unique Rules, & Policies (I.D.2)**	**Documented ongoing communication between the sponsor and affiliate (I.D.3)**	**Signed Current Affiliation Agreement**

Standard II.A: Assessment and Continuous Quality Improvement – Systematic Assessment

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Program evaluation is overseen by the program director with participation from all faculty and clinical liasons. Ferris State University uses a software system called TracDat to record objectives for courses and programs as approved by our University Curriculum Committee. These objectives are assessed in a variety of ways, including course-based examinations, affective behavioral surveys, graduate surveys, and internship site supervisor surveys for each student. TracDat enables the retention of official objectives and goals as well as actions planned in response to results.

Program level assessments are made during the senior-level coursework, the clinical internship experience, and after students have graduated. The program director collects and records this data annually in September.

An annual Outcomes Summary is then created and provided to the Program Advisory Board (see full documented plan in attachment IIA3). This includes program and course assessments, the follow-up actions suggested, and methods to re-assess the results of program or course changes. These are discussed annually at Program Advisory Board meetings.

Accompanying Documentation for Self-Study:

Documentation	Files
Program mission statement and outcomes/goals.	
Schedule representing timelines for identified assessment methods.	
Submit full documented plan for continuous and systematic assessment of the effectiveness of the program.	

Standard II.B: Assessment and Continuous Quality Improvement – Outcome Measures

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Several tools are used to assess program outcomes annually as described in the attached assessment plan (Standard IIA3 attachment). The Program Director assembles data on all outcomes and creates an outcomes summary, including goals and the program's performance relative to those goals. This document is the basis for continuous improvement discussion with the other program faculty and the Program Advisory Board.

Outcomes are tracked annually and include graduation rate for all students who begin the professional sequence, graduation rate for students who begin the second half of the professional sequence, graduates' positive placement rate within one year of graduation, and graduates' ratings on performance metrics in the internship preceptor survey.

This is an application for initial accreditation, and so we have no data on MB(ASCP) exam pass rates or scores.

Accompanying Documentation for Self-Study*:

*Programs undergoing initial accreditation/approval are not required to submit documentation for Standard II.B.

If Outcomes Measures submitted for II.B. 'Accompanying Documentation for Self-Study' are below NAACLS approved benchmarks as listed in the Standards Compliance Guide (or if this is an initial program), additional information must be submitted for Standard VIII.C

CERTIFICATION EXAM PASS RATES Please "check" which successive years to use to determine Three Year Averages:	**For students who graduated between:**			
	☐ 7/1/11 – 6/30/12**	☐ 7/1/12 – 6/30/13	☐ 7/1/13 – 6/30/14	☐ 7/1/14 – 6/30/15
FOR ASCP-BOC (ACCREDITED & APPROVED PROGRAMS) OR AMT & NCCT (FOR APPROVED PROGRAMS)	** Programs with Self-Study Due Dates between 2/1/16 and 6/29/16 may choose to use this column since a full year will not have gone by to collect data for the last column. Those submitting on or after 6/30/16 cannot use this column.			
A) Total # of Graduates	_____	_____	_____	_____
B) # who sat for the exam within first year of graduation	_____	_____	_____	_____
C) # who passed the exam within first year of graduation	_____	_____	_____	_____
Yearly Certification Pass Rate: (C/B)	_____	_____	_____	_____
***Three Year Average Pass Rate: (total across "C "/ total across "B")**	_____			
OTHER CERTIFICATION/LICENSURE EXAMS - INDICATE TYPE:	_____			
D) # who sat for other exam within first year of graduation	_____	_____	_____	_____
E) # who passed other exam within first year of graduation	_____	_____	_____	_____
Yearly Other Certification/ Licensure Pass Rate: (E/D)	_____	_____	_____	_____
Three Year Avg other exam Pass Rate: (total across "E" / total across "D")	_____			

Describe how the Graduate BOC Certification Pass Rate data is analyzed and used in program assessment and continuous quality improvement of the program:

Documentation	Files
Examples of tools used to collect Graduate BOC Certification Pass Rate data (Include source documentation with student names redacted):	

Describe how other Certification/Licensure Pass Rate data is analyzed and used in program assessment and continuous quality improvement of the program:

Documentation	Files
Examples of tools used to collect other Certification/Licensure Pass Rate data (Include source documentation with student names redacted):	

GRADUATION/ATTRITION RATES	For Students slated to graduate in the time periods below:		
	7/1/12 – 6/30/13	7/1/13– 6/30/14	7/1/14 – 6/30/15
A) # who began the "final half" of the program	6	16	14
B) # who began the "final half" of the program but subsequently left(voluntarily or involuntarily)	1	0	0
C) # who began the "final half" of the program but are still currently enrolled	0	0	1
D) # who began the "final half" of the program during the given time period and have since graduated	5	16	13
Yearly Attrition Rate: (B/A)	20%	0%	0%
Yearly Graduation Rate: D/(A-C)	80%	94%	100%
***Three Year Average Graduation Rate: [total "D"/(total "A" - total "C")]**	97%		
NAACLS BENCHMARK FOR GRADUATION RATES: Three years consecutive results of graduation rates demonstrating an average of at least 70%** of students who have begun the final half of the program go on to successfully graduate from the program as calculated by the most recent three year period. **Please explain how you have determined what the "final half" of the program is, as used in your statistics above:**	Our program includes a total of 6 semesters over two years. We define enrollment on the 1st day of the 4th semester as beginning the final half of the program. Students who are dismissed, who withdraw, or who changed programs during the 1st, 2nd, or 3rd semester are therefore not counted above.		

Describe how the Graduation Rate data is analyzed and used in program assessment and continuous quality improvement of the program:

Graduation and attrition rates are included annually in the Outcomes Summary, which is discussed with program faculty and the Program Advisory Board. Each case of attrition or other student concern is discussed at bi-weekly program faculty meetings in order to identify patterns and improve all students' chances to graduate on time. College and University academic reviews also require this data; however, these reflect all students who enroll in the 1st semester of the program, and therefore include slightly different results.

Documentation	Files
Examples of tools used to collect Graduation Pass Rate data (Include source documentation with student names redacted):	

Describe how Attrition Rate data is analyzed and used in program assessment and continuous quality improvement of the program:

Same as above for Graduation Rate.

Documentation	Files
Examples of tools used to collect Attrition Rate data (Include source documentation with student names redacted):	See "Standard IIB2" attachment.

PLACEMENT RATES Please "check" which successive years to use to determine Three Year Averages:	**For the students who graduated between:**			
	☐	☐	✔	✔
	7/1/11 – 6/30/12**	7/1/12 – 6/30/13	7/1/13 – 6/30/14	7/1/14 – 6/30/15
	** Programs with Self-Study Due Dates between 2/1/16 and 6/29/16 may choose to use this column since a full year will not have gone by to collect data for the last column. Those submitting on or after 6/30/16 cannot use this column.			
A) Total # of Graduates	____	____	5	16
B) # that found employment (in the field or in a closely related field) and/or continued their education within one year of graduation	____	____	5	11
C) # that did neither listed above?	____	____	____	1
D) # that do you NOT have any information for?	____	____	____	4
Yearly Average Placement Rate: (B)/(B+C)	____	____	100%	91%
***Three Year Average Placement Rate:** [Total "B" / (Total "B" + Total "C")]	94%			

Describe how the Placement Rate data is analyzed and used in program assessment and continuous quality improvement of the program:

Placement rates are included annually in the Outcomes Summary, which is discussed with program faculty and the Program Advisory Board. College and University academic reviews also require this data; however, these reflect placement within 6 months of graduation, and therefore include slightly different data. Please note that most students graduate in August, so the most recent class (August 2015) is not included in the table above. The job market and need for Molecular Diagnostic Technologists is also discussed with our affiliates at the Clinical Site Coordinator's meeting, as these are sites which are representative of employers of our alumni.

Documentation	Files
Examples of tools used to collect Placement Rate data (Include source documentation with student names redacted):	

(Optional) Describe how other outcomes measures data used in program evaluation as defined in Standard II.B.5 are used in program assessment and continuous quality improvement of the program:

A survey was built this year to better understand our students' outcomes one year or longer after graduation. This survey addresses our graudates' employment outlook and actual job duties once they have had time to transition into the workforce. Contacting graduates after they've left the university was a challenge, but the results of the survey include valuable information about the technical and professional skills our graduates need. We will continue to disseminate the survey each year and discuss its results with our Program Advisory board as well as with current and prospective students. One common concern was lack of value from certain lecture courses without laboratory components. We are working to address this by building laboratory courses to replace these when possible. One such class is in the University's approval process, and is included as attachment.

Documentation	Files
(Optional) Examples of tools used to collect other outcomes measures data used in program evaluation as defined in Standard II.B.5 (Include source documentation with student names redacted):	 

Standard II.C: Assessment and Continuous Quality Improvement – Program Assessment and Modification

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Outcomes measures are reviewed annually in detail by the Program Advisory board, and discussed regularly at bi-weekly program meetings. Outcomes where goals were not met, or where goals were met but improvement was desired are always discussed, and possible program improvements are suggested with a defined schedule for completion and re-evaluation. Most changes to program curriculum or structure are proposed by the Program Director and subject to review and approval by the departmental faculty, the College of Health Professions Curriculum Committee, and the University Curriculum Committee.

In the past year, adjustments to the program have been made in response to outcomes data and feedback from our alumni and external internship sites. For example, we met our goal, but desired improvement in our Professionalism and Communication outcomes. These are reported by the Internship Preceptor evaluation tool. Ideas to improve our program in this regard were discussed at program faculty and Program Advisory Board meetings, and we decided to offer DMOL 460, Management and Regulation, before rather than during the internship, as this class already includes content related to professional behavior and expectations. This will occur for the first time in January 2017 and we will evaluate its effectiveness in September 2017, after those students complete their internships and are assessed. Minutes from the relevant Program Advisory Board and Program meeting are attached. We have also made updates to two of our classes, DMOL 210 and DMOL 410, in response to feedback from graduates and clinical site coordinators on changing technologies in molecular laboratories (see attachment Standard IIC3).

Accompanying Documentation for Self-Study: *Programs undergoing initial accreditation/approval are not required to submit documentation for Standard II.B.

Documentation	Files
Copies of minutes reflecting review and evaluation of program outcome measures (advisory board, program faculty, curriculum team, etc.).	
Documentation of changes implemented as a result of outcome measure review and evaluation, and documentation of ongoing evaluation of the effectiveness of such changes.	

Standard III.A: Resources – General Resources

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

There are two full-time faculty in Ferris' Molecular Diagnostics program. At our current enrollment level these faculty are sufficient to instruct all Molecular Diagnostics (DMOL) courses in the curriculum. Occasionally, special projects or other reassigned time result in the need for one or two additional instructors per semester. In these cases adjunct instructors with a graduate degree in a related field and molecular biology laboratory experience are hired.

The colllege-level program review completed in 2015 included an assessment of program size and capacity with regard to faculty and clinical placements (See attachment IIA7, page 5: Recommendations for the future of the program viability and opportunity for expansion). As we currently do not have more applicants than seats in the program, our staffing was determined to be adequate and we did not identify a need for expansion at this time.

Accompanying Documentation for Self-Study:

Documentation	Info/Files
The number of students admitted per year.	Please also see attachment "IIB GradRates" for source data
Admission date(s).	Applications due January 30th for annual May start. See section 2 http://www.ferris.edu/HTMLS/colleges/alliedhe/Applications/2016/2016_nondisclosure/2016_DMOL_Application_nd.pdf
Instructor to student ratios for lecture	1:32 or fewer students Fall 2015 registration documentation
Instructor to student ratios for student laboratory (if applicable)	1:16 or fewer students Fall 2015 registration documentation
Instructor to student ratios for clinical laboratory (if applicable).	N/A
Attach relevant staff position descriptions.	
Attach program evaluation information/data used to evaluate resource adequacy as part of continuous program evaluation.	

Standard III.B: Resources – Financial Resources

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

The Molecular Diagnostics program is supported financially by Ferris State University. The dedicated laboratory and classroom space is located in Grand Rapids, Michigan, a city 60 miles south of the main Ferris State University campus. Grand Rapids is home to several large hospitals and research institutions, providing an opportunity for co-instructional visits to working laboratories and strong relationships with local clinical partners.

Annually, the budget provides for two full-time tenure track faculty positions and adjunct faculty as necessary. Laboratory supply ordering is managed by the Clinical Coordinator, a program faculty member. Please see attachment "Standard IIIB Financial Support Commitment" for a statement of support from the Dean of the College of Health Professions.

Accompanying Documentation for Self-Study:

Documentation	Files
Submit an institutionally approved budget OR a written statement of continued financial support for the educational program from an executive officer of the sponsor (or one from each participating entity in a consortia or multi-location program.	

Standard III.C: Resources – Physical Resources

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

The Molecular Diagnostics program has a dedicated laboratory and classroom space located in Grand Rapids, Michigan. Ferris State University Grand Rapids is housed within the Grand Rapids Community College campus.

The laboratory, built in 2012, contains sufficient space for 16 students and one instructor. Major equipment necessary for training in molecular diagnostics technology has been purchased and plans to maintain equipment and update when necessary are in place. Laboratory equipment includes end-point and real time PCR machines, a tissue culture laminar-flow hood and incubator, a chemical hood, an epi-fluorescent microscope, two plate readers, centrifuges, a PCR preparation station, electrophoresis equipment, a gel imaging station, an autoclave, a flow cytometer, and a Roche GS Jr pyrosequencer. Micropipettes and benchtop microscopes are available for each student. Please see attachment "Standard IIIC1" for an inventory of laboratory supplies and equipment as well as an instructional example with materials and equipment used identified within the inventory.

Accompanying Documentation for Self-Study:

Documentation	Files
Provide a sample list of equipment and instructional resources available to students and how they are utilized in the curriculum.	Inventory. Please see the first tab within this spreadsheet file for an instructional example.

Standard IV.A: Students – Publications and Disclosures

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Information about the program is publicly available in our Student Handbook (attachment Standard IVA1), program website, and the Ferris State University website. Incoming students are directed to the current Student Handbook, posted online, during their orientation process.

The program's mission statement is to prepare graduates with skills and knowledge for good laboratory practice and professional behavior in the molecular diagnostics laboratory." This is published online.

The program's goals (Section I, E) and graduate competencies, referred to as "outcomes" (Section I, F), are included in our current Student Handbook, available on our website, www.ferris.edu/dmol. Our accreditation status is posted on our website and described in the Student Handbook (Section I, D).

Program outcomes measures are not yet available as this is an initial application. We will post them on our website, www.ferris.edu/dmol, once they are available.

Also included in our Student Handbook are a list of clinical facilities (Section IV, A), our admission criteria (Section II, A), our Essential Function requirements (Section II, C), and our Advanced Placement and Proficiency testing policies (Section II, B).

Course descriptions and credit hours per course are available online and may be easily accessed via our catalog listing.

The Program Director and faculty are named in the Student Handbook (Section I, C).

Accompanying Documentation for Self-Study:

Documentation	URL/File
College Catalog	http://catalog.ferris.edu/program/632
Class Schedule	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/DMOL_BS_Prog_Plan_2015a.pdf
Application Form	http://www.ferris.edu/HTMLS/colleges/alliedhe/Applications/2016/2016_nondisclosure/2016_DMOL_Application_nd.pdf
Program Brochure	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/index.htm
Student Handbook	 http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf

Accompanying Documentation for Self-Study (continued): Please indicate where the following information can be found. Provide specific page numbers and paragraphs when referring to web page or paper publications such as catalogs, handbooks, and brochures. Alternatively, scan and attach appropriate pages or include quoted, cited passages from the indentified publication.

Items	URL/File
Program Mission Statement	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/index.htm
Program Goals and Graduate Competencies	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Sections I, E and Sections I, F
Programmatic Accreditation/Approval Status including NAACLS contact information.	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Section I, D
Results of program outcome measures as identified in Standard II.B	Not available as this is an initial application, but will be posted at www.ferris.edu/dmol once available.
List of Clinical Facilities	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Section IV, A.
Admission Criteria	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Section II, A
A list of course descriptions	http://catalog.ferris.edu/program/632 Each red course ID links to its description.
Names and academic rank or title of the program director and faculty	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/faculty.htm
Tuition and fees with refund policies	http://www.ferris.edu/HTMLS/administration/businessoffice/tuition-rates.htm
Service work policies	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Section IV, D
Policies & procedures for 1) advising & guiding students through the program, 2) clinical assignment, 3) student grievance & appeals, 4) criteria for program completion including probation, suspension, and dismissal	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Sections III C, IV B, III I, and III D, respectively.
Academic Calendar AND rules & regulations governing acceptable personal and academic conduct, including behavior expectations for clinical experience	http://www.ferris.edu/HTMLS/academics/calendars/ and http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf Conduct in the classroom (Section II, E), laboratory (Section II, G), and at the external internship site (Section IV, D).

Standard IV.B: Students – Student Records

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

At Ferris State University, student records are maintained in an online database called Banner. These records include information such as students' admission decisions, courses taken and grades, current program and assigned advisor. Various other systems access this information, including a tool called MyDegree where students and their advisors can conveniently view grades and coursework in regard to program requirements. Notes from advising appointments and course sequence planning can be stored in this system.

Some program-specific records, including student dismissal and appeal documentation, are maintained in the Molecular Diagnostics Program's network drive.

Student transcripts include the student's legal name, grades in all classes, calculated grade point average and, when applicable, degree conferred. Transcripts are permanently retained by the University Registrar.

Accompanying Documentation for Self-Study:

Documentation	Files
Include policies and procedures regarding the retention of records for enrolled students.	Retention of records policy is within this section of the Registrar's policy document: http://www.ferris.edu/HTMLS/admision/registrar/schdBook/page19-20-21.htm#retention The transcript request policy is here: http://www.ferris.edu/HTMLS/admision/registrar/transcriptRequest.htm

Standard IV.C: Students – Health and Safety

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

The health and safety of our students, faculty, and staff are safeguarded by laboratory safety training, clear safety policies, and consistent use of personal protective equipment and engineering controls.

Ferris State University has a dedicated laboratory safety office, directed by Anne Hawkins. Their commitment statement is: "It is the responsibility and intent of Ferris State University Academic Affairs Laboratories to protect the health and safety of students, faculty, staff and visitors while engaged in the educational activities of the University. To this end the Academic Affairs will provide the necessary services and controls to promote, create and maintain a safe and healthful laboratory environment and operations."

Safety policies are discussed with incoming students during their professional sequence orientation session (attachment Standard IVC1), and safety training completion certificates are maintained in the program director's office. Our safety policies are included in our handbook and attached here (attachment "Standard IVC2"). All students take a Biohazard and Safety training module online and must pass the associated test with a score of 90% or higher. This module and test are administered within our Molecular Diagnostics Program Blackboard site. The gradebook with all current students' scores is attachment Standard IVC3 (student names are obscured).

Accompanying Documentation for Self-Study:

Documentation	Files
Include the policy and procedures used for safeguarding the health and safety of students, faculty and patients.	 
Include any forms or other documentation used to provide evidence that students have received biohazard and safety training.	

Standard V: Operational Policies – Fair Practices

Standard V.A - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Students are recruited and applications are processed by Ferris State University. Our website, www.ferris.edu/DMOL provides links to the University application process and details the qualification requirements for admission to the professional sequence of the program. In accordance with University policiy, our admissions, hiring, and employment processes are non-discriminatory on the basis of race, color, religion or creed, national origin, sex, sexual orientation, gender identity, age, marital status, veteran or military status, height, weight, protected disability, genetic information, or any other characteristic protected by applicable State or federal laws or regulations.

Standard V.A - Accompanying Documentation for Self-Study:

Documentation (optional)	Files
Submit written and/or published documentation to support statements made in narrative:	http://www.ferris.edu/non-discrimination/

Standard V.B - Contents of Narrative for Self-Study (Optional):

Faculty recruitment is performed by national search in accordance with University policies, and a statement affirming this is included in the University's employment system. The non-discrimination policy mentioned in Standard V.a above also applies to hiring and employment.

"Ferris State University, an Affirmative Action/Equal Opportunity employer is committed to enhancing equity, inclusion, and diversity within its community. The University actively seeks applications from women, minorities, individual with disabilities, veterans, and other underrepresented groups. For more information about Ferris State University, please visit our web site: www.ferris.edu. Applicants requiring

Standard V.B - Accompanying Documentation for Self-Study:

Documentation	Files
Statements made in the narrative should be supported by written and/or published documentation. Required examples include documents that have non-discrimination policy statements along with student admission requirements and faculty appointment criteria.	https://employment.ferris.edu/

Standard V.C - Contents of Narrative for Self-Study (Optional):

The bachelor's degree is not conditional on students passing any national certification or license examination. Students are, however, encouraged to take the exam for professional reasons and their current eligibility status for the MB(ASCP) examination is described. This policy is included in our student handbook in section IV, E, 4.

Standard V.C - Accompanying Documentation for Self-Study:

Documentation	Files
Statements made in the narrative should be supported by written and/or published documentation. Required examples include a policy or handbook statement that indicates that granting of the degree or certificate is not contingent upon passing an external certification or licensure exam.	Our policy: Published here: http://ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf

Standard V.D - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Closure of the Molecular Diagnostics Bachelor's degree program will occur only after a 2-year moratorium on professional sequence applications. This moratorium will be published on the program's website at www.ferris.edu/dmol and in the College of Health Professions' professional sequence application website. An outline of the moratorium timeline is included in the Program Closure Plan attached. For the first year, all courses are offered. In the second year, only classes in the 2nd year of the professional sequence curriculum will be offered. After the second year, the program will have no remaining students and can initiate the closure process.

Standard V.D - Accompanying Documentation for Self-Study:

Documentation	Files
Statements made in the narrative should be supported by written and/or published documentation. Required examples include a foundation for developing a teach out plan in the event of closure. (Complete details are not necessary, but it must be complete enough to be submitted within 30 days of closure notification).	

Standard V.E - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Our affiliation agreements with clinical sites define service work by students at our clinical sites as non-compulsory and also forbid the use of students in clinical experiences as replacements for full-time staff. These agreements and their conditions are discussed with potential sites before students can be placed in internships. The Student Handbook also includes our policy regarding service work at affiliate sites (Section IV D).

Standard V.E - Accompanying Documentation for Self-Study:

Documentation	Files
Statements made in the narrative should be supported by written and/or published documentation. Required examples include a service work policy for students.	http://www.ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/documents/Student_Handbook_nd_2015.pdf in Section IV, D See Affiliation agreement section 3, D:

Standard V.F - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

As above for Standard V.E:
Our affiliation agreements with clinical sites define service work by students at our clinical sites as non-compulsory and also forbid the use of students in clinical experiences as replacements for full-time staff. These agreements and their conditions are discussed with potential sites before students can be placed in internships. The Student Handbook also includes our policy regarding service work at affiliate sites (Section IV D).

Standard V.F - Accompanying Documentation for Self-Study:

Documentation (Optional)	Files
Submit written and/or published documentation to support statements made in narrative:	See attachment for Standard VE above.

Standard VI: Administrative: Maintaining Accreditation/Approval – Program/Sponsoring Institution Responsibilities

This Standard involves the administrative requirements for maintaining accreditation/approval throughout its award period, and therefore is not reviewed in the self-study or site visit process.

Standard VII.A: Program Administration – Program Director

Standard VII.A.1 Qualifications- Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

The Ferris Molecular Diagnostics Program Director is Jacqueline Peacock, PhD, MB(ASCP)CM. She earned a PhD in Cellular and Molecular Pharmacology from the University of Miami Miller School of Medicine. Dr. Peacock's teaching experience includes training students and technicians in cell and molecular biology laboratories at the University of Miami and Van Andel Institute, tutoring and leading Genetics small groups at Michigan State University College of Human Medicine, teaching Introductory Biology at Grand Valley State University,as well as teaching Cell Biology, Molecular Diagnostics, and Molecular Hematology/Oncology courses at Ferris State University.

Standard VII.A.1 Qualifications - Accompanying Documentation for Self-Study:

Documentation	Files
Provide a curriculum vita for the program director that provides documentation of teaching experience, knowledge of education methods and administration, current NAACLS accreditation procedures and certification procedures. Include a faculty position description for the program director, indicating responsibilities for the position. ***For Phlebotomy Programs only: Certification agencies recognized by NAACLS as meeting Standard requirements for Phlebotomy Certification Qualifications of a program director: American Society for Clinical Pathology**	Program Director C.V. Fact sheet: Position description:
Submit notification from NAACLS indicating that program director was approved.	

Standard VII.A.2 Responsibilities - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Dr. Peacock's responsibilities at Ferris include a role as Assistant Professor in the College of Health Professions and as the Program Coordinator for the Molecular Diagnostics program. As a faculty member, she is expected to participate in course instruction, course development, service to the University, scholarly activity, and student advising. As the Program Coordinator she is also responsible for assessments, outcomes evaluations, and continuous improvement processes at the student, course, and program level. The Program Coordinator is responsible for maintaining the Student Handbook as well as the policies and procedures it contains, including applications to the University Curriculum Committee when required. The most recent Student Handbook was created by Dr. Peacock with input from program faculty in October 2015.

As the Program Coordinator, Dr. Peacock is also responsible for gaining and maintaining accreditation and other relations with outside entities, including the Program Advisory Board.

Standard VII.A.2 Responsibilities - Accompanying Documentation for Self-Study:

Documentation	Files
Submit a completed Faculty Fact Sheet for the program director, including required continuing education.	
Submit a faculty position description for the Program Director, indicating responsibilities for the position.	

Standard VII.A.3 Faculty Appointment - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

The Ferris Molecular Diagnostics program director is a full-time faculty member at Ferris State University who is assigned the administrative role of "Program Coordinator" in addition to regular faculty responsibilities.

Standard VII.A.3 Faculty Appointment - Accompanying Documentation for Self-Study:

Documentation	Files
Provide documentation of faculty (or equivalent) appointments (letters of appointment, college web pages, catalog listing, etc.). Inclusion in the affiliation agreement is not proof of appointment.	http://ferris.edu/HTMLS/colleges/alliedhe/csrchca/Molecular-Diagnostics/faculty.htm

Standard VII.B: Program Administration – Site Program Coordinator (required for Multi-location only, assigned to each participating site)

Standard VII.B.1 Qualifications- Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Standard VII.B.1 Qualifications - Accompanying Documentation for Self-Study:

Documentation	Files
Provide a curriculum vita for the site program coordinator, providing documentation of discipline-appropriate education experience.	

Standard VII.B.2 Responsibilities - Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Standard VII.B.2 Responsibilities - Accompanying Documentation for Self-Study:

Documentation	Files
Submit a completed Faculty Fact Sheet for the site program coordinator	
Submit a completed Faculty Fact Sheet for the site program coordinator Include a faculty position description for the site program coordinator, indicating responsibilities for the position	

Standard VII.C: Program Administration – Faculty

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Our personnel plan, delineated in the Student Handbook (page 7), includes one additional full-time faculty member, David Petillo, PhD, MT(ASCP). Dr. Petillo is responsible for Molecular Diagnostics laboratory and lecture course instruction in addition to managing clinical site affiliations, organizing student internships, and laboratory equipment maintenance as the Clinical Coordinator.

As described in our faculty position description, faculty's duties include providing classroom, laboratory and online instruction, participation in curriculum development, program evaluation and accreditation, active engagement in assessment of student learning and its related analysis and improvement process, academic advising of students in the Molecular Diagnostics Program, and providing program oversight to assure ongoing quality and compliance with accreditation standards.

Accompanying Documentation for Self-Study:

Documentation	Files
Submit faculty fact sheets for each major didactic faculty member	 
Provide appropriate continuing education activity documentation for all major faculty members	 
Document that the faculty teach effectively at the appropriate level. Supporting documentation should include sample faculty and student evaluation forms** *****Documentation submitted and made available for review that contains confidential information (i.e. Student/Faculty Names, Social Security Numbers, etc.) may have such content redacted to protect privacy.***	Sample student evaluation of their instructor ("IDEA") summary and faculty observation, with faculty names redacted:  
Provide faculty position descriptions (indicating responsibilities for the position).	Position description for both full-time faculty members. 

Standard VII.D: Program Administration – Advisory Committee

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

The Ferris Molecular Diagnostics Advisory Committee provides valuable input for evaluation and continuous improvement of our program from diverse professional perspectives. The committee was formed in 2015 and will meet once per year or more often when necessary. The committee currently includes three clinical external members, two academic external members, and one academic internal member in addition to the Program Director, who serves as the committee's chair.

Committee Members and their affiliations:

1. Ted Schutzbank, PhD, D(ABMM), Technical Director, Specialized Testing and Microbiology Laboratory Services at St. John Providence Health System,
2. Richard West, MS, President & CEO of West Labs Scientific, LLC
3. Jonathan Karnes, MS, MB(ASCP)CM, Director of Laboratory Operations, NxGen MDx
4. Sok Kean Khoo, PhD, Distinguished Associate Professor of Molecular Genetics, Grand Valley State University
5. Brian Haab, PhD, Associate Professor and Head of the Laboratory of Cancer Immunodiagnostics, Van Andel Research Institute
6. Bradely Isler, PhD, Professor of Biology, Biotechnology Program Coordinator, Ferris State University
7. Jacqueline Peacock, PhD, MB(ASCP)CM, Assistant Professor, Molecular Diagnostics Program, Ferris State University

Accompanying Documentation for Self-Study:

Documentation	Files
Submit agendas and copies of the Advisory Committee minutes for the last three years.	Only one advisory board meeting has been held in the past 3 years (November 13th, 2015); this is an initial application.

Standard VII.E: Program Administration – Education Coordinator (when required)

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Submit a completed Faculty Fact Sheet for the education coordinator.	
Submit a curriculum vita for the education coordinator, providing documentation of knowledge of current NAACLS accreditation procedures and certification procedures.	

Standard VII.F: Program Administration – Medical Director (for PathA Programs only)

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Submit a completed Faculty Fact Sheet for the medical director.	
Include a signed facility position description for the medical director, indicating responsibilities for the position.	

Standard VIII.A for Accredited Programs: Curriculum Requirements – Instructional Areas

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Before applying to the Molecular Diagnostics professional sequence, students must complete preparatory college-level coursework in Biology, Chemistry, and Mathematics. Preparatory Biology classes required include General Biology 1 , General Biology 2, Anatomy & Physiology, and Medical Microbiology (or their equivalent at any other college or university). Introduction to General Chemistry and Introduction to Organic Chemistry are also required. Students also must either take or demonstrate proficiency in college-level algebra. Genetics is required for graduation, but not for program entry. Most students take Genetics in their first semester in the program.

Our curriculum addresses pre-analytical (sample acquisition, storage), analytical (laboratory test procedures), and post-analytical (conclusions, results reporting, clinical value) of molecular diagnostics tests throughout the curriculum. Our professional sequence classes also include foundational coursework for each molecular diagnostics class. For example, students first take Microbiology and Virology/Mycology/Parasitology classes in preparation for our upper-level Molecular Diagnostics of Infectious Disease sequence.

Accompanying Documentation for Self-Study:

Documentation	Files
Provide a completed Standard VIII Matrix that identifies where items listed in Standard VIII.A are addressed in the curriculum.	
Provide a program schedule which includes the sequence of courses and student clinical assignments. **FOR MLS, MLT:** Provide examples of how each course addresses the following: Pre-analytical, analytical and post analytical components **FOR HTL & HT:** Provide examples of how each course addresses the following: Histopathology applications	
Submit a list of required prerequisite coursework.	Coursework required for program admission is listed in the application, attached here.

Standard VIII.B for Accredited Programs: Curriculum Requirements – Learning Experiences

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

A combination of lectures and student laboratory work are used to educate students in our program. Many lecture classes also include case study presentations by students and regular discussions. The program is structured with foundational coursework for each molecular diagnostics class.

Foundational professional coursework includes:
Microbiology (CLLS 236 or DMOL 236)
Virology/Mycology/Parasitology (CLLS 241)
Hematology and Flow Cytometry (DMOL 220 and CLLS 231)
Immunology (CLLS 251)
Genetics (BIOL 375)
Cell Biology (BIOL 373)

We also require a sequence of techniques-focused courses:
Laboratory Techniques in Molecular Diagnostics (DMOL 110)
Advanced Laboratory Techniques in Molecular Diagnostics (DMOL 210)
Principles of Molecular Diagnostics (DMOL 410/411)

These foundation and techniques-focused courses prepare students for our upper-level Molecular Diagnostics courses, all paired with laboratories:

Molecular Diagnostics of Infectious Disease (DMOL 420/421)
Molecular Hematology/Oncology (DMOL 430/431)
Molecular Genetics (DMOL 440/441)
Molecular Forensics and Identity (DMOL 450/451)

Accompanying Documentation for Self-Study:

Documentation	Files
Document program policies regarding students performing procedures under qualified supervision (See Standards Compliance Guide for suggested documents):	All affiliation agreements stipulate supervision requirements for student procedures. All affiliation agreements are attached in Standard 1. As an example, see section 1,J:

Standard VIII.C for Accredited Programs: Curriculum Requirements – Evaluations

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Each course in the program includes evaluations administered by the course instructor. We commonly refer to these as "assessments". In most lecture classes assessment includes periodic written examinations (not less than once per 16-week term) and student presentations of case studies or journal articles. Laboratory classes are assessed by a combination of written examinations and laboratory practicals, where students are asked to demonstrate mastery of a laboratory technique or skill without instructor assistance.

For each course, learning objectives are established and tied to an assessment. The outcomes for each learning objective, both at the course and program level, are recorded in our TracDat assessment system. This allows us to identify areas where we are not meeting our objectives-based goals, make adjustments to the curriculum or presentation, and plan re-assessments as necessary. An example of this record-keeping process is included in the third attachment, below.

Detailed information, including the syllabus, objectives, assessments, and evaluations are included for one of the senior-level classes, DMOL 110: Laboratory Techniques in Molecular Diagnostics

Accompanying Documentation for Self-Study:

Documentation	Files
Submit proof that evaluation systems relate to course content and support program competencies.	DMOL 110 final evaluation with notes on competencies: 
Submit proof that evaluation systems are employed frequently enough to provide students and faculty with timely indications of the students' academic standing and progress.	http://www.ferris.edu/statewide/importantdates/ University policy requires timely posting of grades 4-5 days after the close of each academic semester (12-16 weeks)
Submit proof that evaluation systems serve as a reliable indicator of the effectiveness of instruction and course design.	

If outcomes measures listed in "II.B. 'Accompanying Documentation for Self-Study'" are below NAACLS approved benchmarks (or if there is not three years worth of accumulated data, in the case of initial programs), provide for one course in your curriculum the following items:

Documentation	Files
Syllabus	The syllabus for DMOL 110 attached also includes objectives & assessments below. 
Course goals	1. Utilize pipettes to accurately dispense reagents and specimens 2. Select the proper collection devices and tubes for molecular specimens 3. Identify a quality control trends and biases 4. Utilize reagents to extract DNA from blood samples
Measureable objectives in the cognitive, psychomotor, and affective domains	1. Accurately dispense reagents and specimens. [Psychomotor] 2. Identify a trend, shift or bias. [Cognitive + Affective] 3. Select the proper tube and collection device [Cognitive] 4. Extract DNA [Psychomotor] and analyze for potential contamination. [Cognitive]
Evaluation systems that correlate with objectives	Final examination with notes on objectives:  Affective evaluation form (administered once per year) 

Standard VIII.A for Approved Programs: Curriculum Requirements – Instructional Areas

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Provide a completed Standard VIII Matrix that identifies where items listed in Standard VIII.A are addressed in the curriculum.	

Documentation	Files
FOR PBT: • A list of required prerequisite course work, if applicable • Program goals • Curriculum outline, including course sequencing and a sample schedule demonstrating how a student may progress through the program • Course descriptions for each unit of instruction or course in the program, including documentation of how each course addresses a variety of collection techniques, contact with various patients in a variety of settings, and a minimum of 100 hours of applied experiences and 100 unaided collections • Document where items in Standards VIII.A1-6 are included within the program curriculum Suggested documentation may include: o course syllabi that include schedules and objectives o objectives for the didactic and clinical aspects of the program that address the cognitive, psychomotor and affective domains o course examinations program schedules	

Documentation	Files
FOR CA: • A list of required prerequisite course work, if applicable • Program goals • Curriculum outline, including course sequencing and a sample schedule demonstrating how a student may progress through the program, including sequenced course of study from basic content to higher level of learning in the modules offered. Note where and how the core competencies are obtained and the 100 hours of applied experiences are provided. • Course descriptions for each unit of instruction or course in the program • Document where items in Standards VIII.A are included within the program curriculum. Suggested documentation may include: o course syllabi that include schedules and objectives o objectives for the didactic and clinical aspects of the program that address the cognitive, psychomotor and affective domains o course examinations o program schedules	

Standard VIII.B for Approved Programs: Curriculum Requirements – Learning Experiences

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Submit documentation that didactic and clinical curricula provide sequenced learning experiences necessary to achieve entry competencies. (See Standards Compliance Guide for suggested documents):	

Standard VIII.C for Approved Programs: Curriculum Requirements – Evaluations

Contents of Narrative for Self-Study (See Standards Compliance Guide for required/suggested contents):

Accompanying Documentation for Self-Study:

Documentation	Files
Describe the evaluation system(s) utilized by the program to assess the effectiveness of instruction, frequency of use of the various evaluation tools, and how the results of evaluation are utilized in program evaluation and revision:	

Documentation	Files
Submit policies and procedures for **student and** faculty evaluation. (See Standards Compliance Guide for suggested documents):	
Documentation of: **- Utilization of feedback from evaluation in determining program effectiveness (See Standards Compliance Guide for suggested documents)** - Programmatic curriculum improvements and changes made as a result of systematic program review.	

If outcomes measures listed in "II.B. 'Accompanying Documentation for Self-Study'" are below NAACLS approved benchmarks (or if there is not three years worth of accumulated data, in the case of initial programs), provide for one course in your curriculum the following items:

Documentation	Files
Syllabus	
Course goals	
Measureable objectives in the cognitive, psychomotor, and affective domains	
Evaluation systems that correlate with objectives	