

UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. A [checklist](#) is available to assist in the preparation of a proposal. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Raelene Maser phone number 831-8400

Department: Medical Laboratory Sciences email address rmaser@udel.edu

Date: _____

Action: Add Honors Degree to Medical Diagnostics Major

(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term 13F

(use format 04F, 05W)

Current degree BS

(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: HBS

(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: Medical Diagnostics (Honors)

Proposed new name for revised or new major / minor / concentration / academic unit (if applicable)

Revising or Deleting:

Undergraduate major / Concentration: Medical Diagnostics

(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor: _____

(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change: _____

(**Must attach** your Graduate Program Policy Statement)

Graduate Program of Study: _____

(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration: _____

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the [Course Challenge](#) list. If there are no new courses enter “None”)

There are no new courses being added to the curriculum. A section 80 will be added to the following courses in the Medical Diagnostics Major that will offer an Honors section (i.e., MEDT 398 and 462). An honors section already exists for MEDT 401, 403, 405, 406 and 430.

Supply support letter from the Library, Dean, and/or Department Chair if needed
(all new majors/minors will need a support letter from the appropriate administrator.)

This proposal has been created in consultation with the Honors Program and a letter of support is attached.

Supply a resolution for all new majors/programs; name changes of colleges, departments, degrees; transfer of departments from one college to another; creation of new departments; requests for permanent status. [See example of resolutions.](#)

NA

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: <http://www.ugs.udel.edu/gened/>

- Utilize scientific principles (e.g., physiology, immunology, biochemistry, molecular biology, genetics, microbiology, hematology, etc.) as applicable for the healthcare arena. This goal supports the University’s General Education goals # 5 and # 7.
- Interpret clinical significance, laboratory test data, and test utilization accurately. This goal supports the University’s General Education goal # 2.
- Utilize principles of quality assurance and quality improvement for all phases of laboratory services, i.e., pre-analytical, analytical, and post-analytical focusing on patient safety. This goal supports the University’s General Education goals # 1 and # 2.
- Communicate, through oral and written skills, effectively and professionally to enable consultative and educational interactions with healthcare personnel, the public, and patients in order to function successfully as a member of the healthcare team. This goal supports the University’s General Education goals # 1 and # 3.
- Demonstrate ethical behavior and professionalism, maintain confidentiality of patient information, and participate in continuing education for one’s own professional career development. This goal supports the University’s General Education goals # 4 and # 6.
- Function in a culturally diverse, global society that demonstrates variations in intellectual expression and human creativity. This goal supports the University’s General Education goals # 8, # 9, and # 10.

Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter “None”)

The estimated number of graduates from the Medical Diagnostics major is initially projected to be approximately 10 students annually. We estimate; however, that only a few of these students will be in the Honors program. Thus, initially we project that these small numbers will not impact the total number of seats in most of the Honors classes. In addition, these Honors students would be coming into the U of DE most likely as pre-med majors in other units and therefore would be in need of Honors courses. We did, however, contact the Department of Biological Sciences since the Honors sections of BISC 207 and BISC 208 may be most affected. A letter of support is attached from that department.

Describe the rationale for the proposed program change(s):

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

Medical Diagnostics is a clinical-oriented science program that incorporates the basic science courses with medical-related courses that impact the diagnosis and therapy of disease. During the freshman and sophomore years, students will enroll in courses in the basic sciences (e.g., biology, chemistry) and liberal arts preparing them for the junior and senior years where the pathophysiology of diseases will be evaluated in five major areas of clinical laboratory sciences (i.e., Clinical Chemistry, Hematology, Immunohematology, Medical Microbiology, Immunology). Clinical laboratory testing plays a crucial role in the detection, diagnosis and treatment of disease. More than 70% of all medical decisions are made based on clinical laboratory findings. Thus, it is important for individuals pursuing careers in health related fields to be educated with regard to interpreting clinical laboratory data. The Honors coursework particularly in the junior and senior years of the Medical Diagnostics major is relative to the practice of medicine and will broaden the student’s understanding of health and disease by providing them an enhanced clinical component. The enhanced Honors experience will incorporate the use of field experiences, journal readings, literature searches, writing, oral presentations, and research projects in order to support the student’s growth and understanding of particular topics. Based on the framework of courses taught in the clinical laboratory sciences, the development of potential topics may also be in conjunction with the expertise of faculty researchers within the department in the fields of cancer, immunology, infectious disease, obesity and diabetes. The enhanced Honors experience may also include participation in out-of-classroom enrichment activities (e.g., government involvement, delivery of quality care with other healthcare professionals, healthcare ethics) as well as partnership with health-care providers for gaining advanced clinical practicum through clinical research projects.

Program Requirements:

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.) [See example of side by side.](#)

Current

DEGREE: BACHELOR OF SCIENCE MAJOR: MEDICAL DIAGNOSTICS

The Medical Diagnostics B.S. degree curriculum provides a solid theoretical foundation for further study in the healthcare-related professions. Students will learn the pathophysiology of diseases in five major areas of study: Clinical Chemistry, Immunology, Immunohematology, Medical Microbiology, and Hematology. Students will study detailed information about laboratory analyses and how clinical laboratory data correlates to human disease. Medical Diagnostics is designed for those with an interest in healthcare including careers in medicine, dentistry, optometry, and physician assistant.

For exceptionally talented and highly motivated students, several special academic opportunities are available. Students may pursue the Degree with Distinction, Honors courses, or undergraduate research through independent study.

Admission to the Medical Diagnostics major will be a two-step process. While the freshman or transfer student is accepted by the University as a Medical Laboratory and Diagnostics Interest student, final acceptance into the major as a junior is dependent on the student's academic performance during his/her freshman and sophomore years. All applicants will be evaluated by the Medical Laboratory Sciences Undergraduate Program Committee.

Eligibility for admission to the junior year of the Medical Diagnostics major will be determined by academic achievement based on the following criteria:

Minimal GPA of 3.0 in first four semesters of coursework. At least 60 credits including designated chemistry, biological science, physics, mathematics, and kinesiology and applied physiology prerequisites must be completed prior to admission into the major. The science prerequisites include BISC 207, BISC 208, BISC 300, CHEM 103, CHEM 104, CHEM 321, CHEM 322, and the science sequence of BISC 276 and PHYS 201/PHYS 202 or KAAP 309/KAAP 310. The mathematics prerequisites include one of the following courses: MATH 114, MATH 115, MATH 117, MATH 221 or MATH 241. In addition, the student must have made satisfactory progress towards a baccalaureate degree.

Revised

DEGREE: HONORS BACHELOR OF SCIENCE MAJOR: MEDICAL DIAGNOSTICS

The Medical Diagnostics B.S. degree curriculum provides a solid theoretical foundation for further study in the healthcare-related professions. Students will learn the pathophysiology of diseases in five major areas of study: Clinical Chemistry, Immunology, Immunohematology, Medical Microbiology, and Hematology. Students will study detailed information about laboratory analyses and how clinical laboratory data correlates to human disease. Medical Diagnostics is designed for those with an interest in healthcare including careers in medicine, dentistry, optometry, and physician assistant.

For exceptionally talented and highly motivated students, several special academic opportunities are available. Students may pursue the Degree with Distinction, Honors Degree, or undergraduate research through independent study.

Admission to the Medical Diagnostics major will be a two-step process. While the freshman or transfer student is accepted by the University as a Medical Laboratory and Diagnostics Interest student, final acceptance into the major as a junior is dependent on the student's academic performance during his/her freshman and sophomore years. All applicants will be evaluated by the Medical Laboratory Sciences Undergraduate Program Committee.

Eligibility for admission to the junior year of the Medical Diagnostics major will be determined by academic achievement based on the following criteria:

Minimal GPA of 3.0 in first four semesters of coursework. At least 60 credits including designated chemistry, biological science, physics, mathematics, and kinesiology and applied physiology prerequisites must be completed prior to admission into the major. The science prerequisites include BISC 207, BISC 208, BISC 300, CHEM 103, CHEM 104, CHEM 321, CHEM 322, and the science sequence of BISC 276 and PHYS 201/PHYS 202 or KAAP 309/KAAP 310. The mathematics prerequisites include one of the following courses: MATH 114, MATH 115, MATH 117, MATH 221 or MATH 241. In addition, the student must have made satisfactory progress towards a baccalaureate degree.

Courses taken pass/fail cannot be used to complete major requirements. Pass/fail courses are for free electives only. A minimal grade of C- is required in each MEDT course in the Medical Diagnostics major.

UNIVERSITY REQUIREMENTS

ENGL 110 First Year Experience (FYE)	Critical Reading and Writing (minimum grade C-) First Year Experience (satisfied by MEDT 100)	3 1
University Breadth Discovery Learning Experience (DLE)	(Minimum grade of C- required in all courses) Satisfied by MEDT 462	12 3
Multi-cultural Courses	One of the courses taken to satisfy the breadth requirements also may satisfy the multicultural course requirement.	3

MAJOR REQUIREMENTS

2nd Writing Course		3
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 45 credit hours. (See list of courses approved for second writing requirement.)		

Courses taken pass/fail cannot be used to complete major requirements. Pass/fail courses are for free electives only. A minimal grade of C- is required in each MEDT course in the Medical Diagnostics major.

UNIVERSITY REQUIREMENTS

ENGL 110 First Year Experience (FYE)	Critical Reading and Writing (minimum grade C-) First Year Experience (satisfied by MEDT 100)	3 1
University Breadth Discovery Learning Experience (DLE)	(Minimum grade of C- required in all courses) Satisfied by MEDT 462	12 3
Multi-cultural Courses	One of the courses taken to satisfy the breadth requirements also may satisfy the multicultural course requirement.	3

MAJOR REQUIREMENTS

2nd Writing Course		3
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 45 credit hours. (See list of courses approved for second writing requirement.)		

One of the following math courses

MATH 114	College Mathematics and Statistics	3
MATH 115	Pre-Calculus	3
MATH 117	Pre-Calculus for Scientists and Engineers	4
MATH 221	Calculus I	3
MATH 241	Analytic Geometry and Calculus A	4

English

Any English course at the 200-level or above. (Many English courses also can satisfy the Creative Arts and Humanities breadth requirement.)

ADDITIONAL BREADTH REQUIREMENTS

From the list of University breadth courses, an additional nine credits must be taken to meet the requirements for the major; subject areas may be from the same discipline.

Creative Arts and Humanities	3
History and Social Change	3
Social and Behavioral Change	3

Current

(minimum grade of C- required in all MEDT courses)

CURRICULUM

MEDT 100	Introduction to Medical Technology	<u>CREDITS</u>
		1

One of the following math courses

MATH 114	College Mathematics and Statistics	3
MATH 115	Pre-Calculus	3
MATH 117	Pre-Calculus for Scientists and Engineers	4
MATH 221	Calculus I	3
MATH 241	Analytic Geometry and Calculus A	4

English

Any English course at the 200-level or above. (Many English courses also can satisfy the Creative Arts and Humanities breadth requirement.)

Additional Breadth Requirements:

From the list of University breadth courses, an additional nine credits must be taken to meet the requirements for the major; subject areas may be from the same discipline.

Creative Arts and Humanities	3
History and Social Change	3
Social and Behavioral Change	3

Current

(minimum grade of C- required in all MEDT courses)

CURRICULUM

MEDT 100	Introduction to Medical Technology	<u>CREDITS</u>
		1

MEDT 200	The Language of Medicine	3	MEDT 200	The Language of Medicine	3
MEDT 360	Clinical Immunology and Medical Virology	3	MEDT 360	Clinical Immunology and Medical Virology	3
MEDT 398	Body Fluid Analysis	1	MEDT 398	Body Fluid Analysis	1
MEDT 401	Clinical Physiological Chemistry I	3	MEDT 401	Clinical Physiological Chemistry I	3
MEDT 403	Clinical Physiological Chemistry II	4	MEDT 403	Clinical Physiological Chemistry II	4
MEDT 404	Hematology I	2	MEDT 404	Hematology I	2
MEDT 405	Hematology II	2	MEDT 405	Hematology II	2
MEDT 406	Medical Microbiology	3	MEDT 406	Medical Microbiology	3
MEDT 409	Immunohematology	1	MEDT 409	Immunohematology	1
MEDT 420	Immunohematology II	1	MEDT 420	Immunohematology II	1
MEDT 430	Diagnostic Bacteriology and Medical Mycology	2	MEDT 430	Diagnostic Bacteriology and Medical Mycology	2
MEDT 462	Experiential Learning	3	MEDT 462	Experiential Learning	3
BISC 207	Introductory Biology I	4	BISC 207	Introductory Biology I	4
BISC 208	Introductory Biology II	4	BISC 208	Introductory Biology II	4
BISC 300	Introduction to Microbiology	4	BISC 300	Introduction to Microbiology	4
BISC 401	Molecular Biology of the Cell	3	BISC 401	Molecular Biology of the Cell	3
BISC 403	Genetic and Evolutionary Biology	3	BISC 403	Genetic and Evolutionary Biology	3
CHEM 103	General Chemistry	4	CHEM 103	General Chemistry	4
CHEM 104	General Chemistry	4	CHEM 104	General Chemistry	4
CHEM 214	Elementary Biochemistry	4	CHEM 214	Elementary Biochemistry	4
or			or		
CHEM 527	Introductory Biochemistry	3	CHEM 527	Introductory Biochemistry	3
CHEM 321	Organic Chemistry	4	CHEM 321	Organic Chemistry	4
CHEM 322	Organic Chemistry	4	CHEM 322	Organic Chemistry	4

STAT 408 Statistical Research Methods I 3

One of the following science sequences:

BISC 276 Human Physiology 4

and

PHYS 201 Introductory Physics I 4

PHYS 202 Introductory Physics II 4

or

KAAP 309 Human Anatomy and Physiology I 4

KAAP 310 Human Anatomy and Physiology II 4

Credits to total a minimum of 120.

Eligibility for admission to the junior year of the Medical Diagnostics Major will be determined by academic achievement based on the following criteria:

1. Minimal GPA of 3.0 in the first four semesters of coursework.
2. At least 60 credits among the designated chemistry, biological science, mathematics, physics, and kinesiology and applied physiology prerequisites must be completed prior to admission into the major. The science prerequisites include BISC 207, BISC 208, BISC 300, CHEM 103, CHEM 104, CHEM 321, CHEM 322, and the science sequence of BISC 276 AND PHYS 201/PHYS 202 OR KAAP 309/KAAP 310. The mathematics prerequisite includes one of the following courses: MATH 114, MATH 115, MATH 117, MATH 221 or MATH 241. In addition, the student must have made satisfactory progress towards a baccalaureate degree.

STAT 408 Statistical Research Methods I 3

One of the following science sequences:

BISC 276 Human Physiology 4

and

PHYS 201 Introductory Physics I 4

PHYS 202 Introductory Physics II 4

or

KAAP 309 Human Anatomy and Physiology I 4

KAAP 310 Human Anatomy and Physiology II 4

Credits to total a minimum of 120.

Eligibility for admission to the junior year of the Medical Diagnostics Major will be determined by academic achievement based on the following criteria:

1. Minimal GPA of 3.0 in the first four semesters of coursework.
2. At least 60 credits among the designated chemistry, biological science, mathematics, physics, and kinesiology and applied physiology prerequisites must be completed prior to admission into the major. The science prerequisites include BISC 207, BISC 208, BISC 300, CHEM 103, CHEM 104, CHEM 321, CHEM 322, and the science sequence of BISC 276 AND PHYS 201/PHYS 202 OR KAAP 309/KAAP 310. The mathematics prerequisite includes one of the following courses: MATH 114, MATH 115, MATH 117, MATH 221 or MATH 241. In addition, the student must have made satisfactory progress towards a baccalaureate degree.

B: Sample Curriculum Guide for Honors Coursework to Obtain Honors BS in Medical Diagnostics

Freshman Year

Fall Semester

Bisc 207/100 (Honors)
Chem 103 (Honors)
Engl 110 or Colloquium (Honors)

Spring Semester

Bisc 208 (Honors)
Chem 104 (Honors)
Engl 110 or Colloquium (Honors)

Sophomore Year

Fall Semester

KAAP 309 (Honors)
Breadth/Multicultural (Honors)

Spring Semester

KAAP 310 (Honors)
Breadth (Honors)

Junior Year

Fall Semester

MEDT 398 (Honors)

Spring Semester

BISC 401 (Honors)
MEDT 401 (Honors)
MEDT 406 (Honors)

Senior Year

Fall Semester

UNIV 490 (Honors Capstone; Group A; Second Writing)
MEDT 403 (Honors)
MEDT 405 (Honors)
MEDT 430 (Honors)

Spring Semester

UNIV 495 (Honors Capstone: Second Writing; Breadth)
MEDT 462 (Honors *pending* Capstone approval)

Students have numerous possibilities of Honors coursework throughout their eight semesters. Students would track easily toward the General Honors Award with Honors coursework during the first two years. In addition, a student will be able to fulfill the Honors degree with several options, especially during the senior year. Not all courses designated as Honors must be taken as Honors. Students should take enough Honors coursework to fulfill honors requirements.

PHRASING TO BE INCLUDED IN CATALOG:

HONORS DEGREE IN MEDICAL DIAGNOSTICS

The recipient must complete:

1. All requirements for the Bachelor of Science degree in Medical Diagnostics.
2. All the University generic requirements for the Honors Degree.

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson *Huey-Jen Lin* Huey-Jen Lin Date October 26, 2012

Dean of College _____ Date _____

Chairperson, College Curriculum Committee _____ Date _____

Chairperson, Senate Com. on UG or GR Studies _____ Date _____

Chairperson, Senate Coordinating Com. _____ Date _____

Secretary, Faculty Senate _____ Date _____

Date of Senate Resolution _____ Date to be Effective _____

Registrar _____ Program Code _____ Date _____

Vice Provost for Academic Affairs & International Programs _____ Date _____

Provost _____ Date _____

Board of Trustee Notification _____ Date _____

Revised 02/09/2009 /khs



Honors Program

186 S. College Avenue
Newark, DE 19716-1256
Phone: 302-831-4195
Fax: 302-831-4194
Email: honorsprogram@udel.edu

October 25, 2012

Raelene Maser, Associate Professor
Department of Medical Laboratory Sciences
305F Willard Hall

Dear Raelene:

I am submitting this letter in support of the Honors Degree in Medical Diagnostics being proposed by the Department of Medical Laboratory Sciences. This degree option offers an interesting and challenging course of study for students in the Honors Program.

The proposal specifies a clear academic plan for achieving the Honors Degree within a four-year timeline. Because this degree does not change the total number of Honors Students admitted to the University, it will not require additional resources from the Honors Program directly. In addition, the proposal has received support from the Department of Biological Sciences confirming that sufficient capacity will be available in Honors BISC207/208 (important foundational courses for the degree) to accommodate students pursuing the Honors Degree in Medical Diagnostics.

I thank you and your colleagues for moving forward with a proposal that will enhance the Honors Program offerings at the University. Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Michael Arnold".

Michael Arnold
Director

Date: Wed Oct 24 08:53:00 EDT 2012

From: "Randall L. Duncan" <rlduncan@UDel.Edu> [Add To Address Book](#) | [This is Spam](#)

Subject: RE: Honors BISC207 and 208 request

To: <rmaser@UDel.Edu>

Cc: "Lin, Huey-Jen Lee" <hlin@UDel.Edu>, <dusher@UDel.Edu>

Hi Rae,

Sorry that I didn't respond earlier...things get buried easily anymore. With this small number of students, we should be able to absorb any of your majors into our BISC207/208 honors sections.

Sorry again for the delay.

Best regards,

Randy
Randall L. Duncan, Ph.D.
Professor and Chair
Dept. of Biological Sciences
University of Delaware

"Don't measure yourself by what you have been able to accomplish, but by what you should have accomplished with your ability."

John Wooden, UCLA basketball coach

----- Original message -----

Date: Thu, 18 Oct 2012 09:43:06 -0400 (EDT)

From: <rmaser@UDel.Edu>

Subject: Honors BISC207 and 208 request

To: rlduncan@udel.edu

Oct 18, 2012

Dr. Duncan:

I am chairing the Undergraduate Program Committee for the Department Medical Laboratory Sciences. We are exploring the possibility of the addition of an Honors BS in Medical Diagnostics. The estimated number of graduates from the Medical Diagnostics major is initially projected to be approximately 10 students annually. We estimate; however, that only a few of these students will be in the Honors program. It is possible that these students will likely represent some of the students who would have come in through Medical Laboratory Science and therefore might have been part of the Honors BISC207 & 208 demand anyway. Given; however, that this could affect the Honors sections of BISC 207 and BISC 208, I am writing to ask your support for inclusion of these potential students.

Thank you for your help with regard to this matter,

Rae

Raelene E Maser, PhD, MT(ASCP)

Department of Medical Laboratory Sciences

831-8400

rmaser@udel.edu