

## Edgewood College

### Curriculum for the Medical Science Major with a Sonography Concentration

Fall Semester – Freshman Year		Credits	Spring Semester – Freshman Year		Credits
MATH 114A	Precalculus A: College Algebra (M)	3	<sup>1</sup> CHEM 120	General Chemistry (S)	4
MATH 114B	Precalculus B: Trigonometry Or B or better in high school Trig.	2	COMM 100	Oral Communication (O)	4
PHILOS 101	Logic: Critical Thinking (T)	3	ENG 110	College Writing (W)	4
<i>COR I</i>		3	<i>Gen Ed</i>	<i>(Select: A, B, C, H, or R with D,E,G,Q)</i>	3-4
<i>Gen Ed</i>	<i>(Select: A, B, C, H, or R with D,E,G,Q)</i>	3-4			
Total Credits		14-15	Total Credits		15-16

Fall Semester – Sophomore Year		Credits	Spring Semester – Sophomore Year		Credits
BIO 155	Human Cell Biology & Genetics (S,U)	4	BIO 210	Anatomy & Physiology I	4
CHEM 121	General Chemistry II (S)	4	PHYSICS 130	General Physics (S)	4
<i>COR II</i>		3-4	<sup>4</sup> PHIL 442	Health Care Ethics (P)	4
<i>Gen Ed</i>	<i>(Select: A, B, C, H, or R with D,E,G,Q)</i>	3-4	BIO 251	Intro to Biology Research I (I)	3
Total Credits		14-16	Total Credits		15

Fall Semester – Junior Year		Credits	Spring Semester – Junior Year		Credits
BIO 211	Anatomy & Physiology II	4	BIO 410	Pathology (K)	3
PHYSICS 131	General Physics II (S)	4	BIO 202	Medical Terminology	2
PSYCH 101	Intro to Psychology (J)	4	PSYCH 345	Life Span Development	4
<i>Gen Ed</i>	<i>(Select: A, B, C, H, or R with D,E,G,Q)</i>	3-4	<i>COR III CHEM 400: Ethics &amp; Resp. in Sci. Research</i>		1
<i>*Apply for internship by December 1</i>			<i>Gen Ed</i>	<i>(Select: A, B, C, H, or R)</i>	3-4
Total Credits		15-16	<i>*BIO 499</i>	Biology Assessment	0
			Total Credits		13-14

<sup>1</sup> Chemistry 120 or 121 sequence can be started at any time depending on math placement.

<sup>a</sup> Medical Law requirement for UWHC fulfilled by PHIL 442 or RS 442. Only post-bacc students need to take RS 442 (R).

\*In students' final semester before their clinical training, students will take a 0-credit BIO 499, in which there is a non-graded electronic testing exam administered in the final exam week that will only be used for the Biological Sciences Department program evaluation.

The courses listed above in italics are part of Edgewood College general education requirements. The students apply to the School of Diagnostic Medical Sonography in the Fall semester of their junior year at the University of Wisconsin's Hospitals and Clinics (UWHC). The UWHC internship is a very competitive program with excellent certification and employment success and this curriculum has been designed to specifically improve Edgewood College students' likelihood of acceptance. Interested students should seek advice from their major advisor as to how to improve their chances of admission to the UWHC program. The students will interview around the time of spring break in their junior year, and if accepted, they will continue their education at UWHC in their final 2 years. If the students are not accepted into the program, the students can wait to the following December to reapply or work toward graduating with a biology major. The students who become Biology majors will have enough time to complete the remaining required research requirement and courses for the Biology major (BIO 250, 353, 401, 402, 480) and 1 of the following courses (BIO 206, 275, 333, 430, or 450) in their fourth year at Edgewood College.

#### Additional Requirements:

- Students are required to have completed their Certified Nursing Assistant certification (CNA) and the Health-Care Provider CPR certification prior to starting their clinical coursework (internship) at the UWHC. Students are recommended to complete their CNA certification in their Freshman year so that they can use this certification to gain clinical practice experience.
- Clinical experience in patient care is required prior to acceptance in the UWHC program, and significantly enhances your application if you have this experience prior to your application to UWHC. Experience caring for the sick is beneficial in that it prepares you for clinical practice and such experience can be obtained through employment (required CNA certification) or volunteer activities in nursing homes, hospitals, clinics including urgent care, trauma centers, and imaging centers. The UWHC requires a minimum of 100 hours of clinical practice experience.
- Students are required to shadow a sonographer for a minimum of 4-8 hours prior to application to UWHC in the Fall semester of your Junior year. Please talk to your major advisor to request a shadowing experience through UWHC. Students are encouraged to shadow general sonography, echocardiography, and radiography to make an informed decision and to facilitate a clear understanding of the differences between fields.
- Students are required to have an overall GPA of 3.0 on a 4 point scale for all pre-professional coursework. In addition, a minimum of "C" grade must be earned in each prerequisite course, which includes all courses listed above except for courses listed as "COR or Gen Ed".

**UWHC Curriculum for Sonography Internship**

Students have the option of receiving training to two areas of sonography: general sonography and echocardiography. Prior to the start of the UWHC internship, students must choose one of these two options. The curricula for both options is included below.

<b>UWHC Curriculum for <u>General Sonography</u></b>			
<b>FALL – Year 1</b>		<b>SPRING – Year 1</b>	
C L SCI 310 Intro to Diagnostic Medical Sonography	3	C L SCI 312 Abdominal Sonography II	3
C L SCI 311 Abdominal Sonography I	3	C L SCI 321 Ob/Gyn Sonography II	3
C L SCI 313 Clinical Education I	3	C L SCI 323 Sonographic Physics & Instrumentation	3
C L SCI 320 Ob/Gyn Sonography I	3	C L SCI 324 Clinical Education II	3
C L SCI 450 Vascular Sonography I	3	C L SCI 451 Vascular Sonography II	5
Total Credits	15	Total Credits	15

<b>UWHC Curriculum for <u>Echocardiography</u></b>			
<b>FALL – Year 1</b>		<b>SPRING – Year 1</b>	
C L SCI 310 Intro to Diagnostic Medical Sonography	3	C L SCI 340 Embryology of the Heart	2
C L SCI 454 Intro to Fetal Echocardiography	3	C L SCI 341 Adult Echo-Valvular Heart Disease	3
C L SCI 337 Clinical Education I	3	C L SCI 323 Sonographic Physics & Instrumentation	3
C L SCI 320 Cardiovascular Principles	4	C L SCI 342 Clinical Education II	3
C L SCI 450 Vascular Sonography I	3	C L SCI 451 Vascular Sonography II	5
Total Credits	16	Total Credits	14

<b>UWHC Curriculum for <u>General Sonography</u> - Summer year 1</b>	
C L SCI 322 Ob/Gyn Sonography III	3
C L SCI 325 Specialized Sonography	3
C L SCI 326 Clinical Education III	3
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<b>UWHC Curriculum for <u>Echocardiography</u> - Summer year 1</b>	
C L SCI 345 Pediatric Echocardiography I	3
C L SCI 346 Adult Echo Cardiomyopathies	2
C L SCI 347 Clinical Education III	3
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<b>UWHC Curriculum for <u>General Sonography</u></b>			
<b>FALL – Year 2</b>		<b>SPRING – Year 2</b>	
C L SCI 319 Abdominal Sonography III	2	C L SCI 457 Clinical Education V	4
C L SCI 402 Intro to Fetal Echocardiography	1	C L SCI 458 Seminar in Advanced Medical Imaging	3
C L SCI 452 Clinical Education IV	3	C L SCI 460 Seminar in Professional Development	3
C L SCI 453 Seminar in Ob/Gyn	3	C L SCI 463 Seminar-Management & Education	3
C L SCI 454 Intro to Fetal Echocardiography	3		
CLSCI 455 Vascular Sonography III	3		
Total Credits	15	Total Credits	13

<b>UWHC Curriculum for <u>Echocardiography</u></b>			
<b>FALL – Year 2</b>		<b>SPRING – Year 2</b>	
C L SCI 435 Adult Echo-Advanced Pathology	3	C L SCI 457 Clinical Education V	4
C L SCI 436 Pediatric Echocardiography II	3	C L SCI 458 Seminar in Advanced Medical Imaging	3
C L SCI 438 Clinical Education IV	3	C L SCI 460 Seminar in Professional Development	3
C L SCI 437 Stress Echocardiography	3	C L SCI 463 Seminar-Management & Education	3
CLSCI 455 Vascular Sonography III	3		
Total Credits	15	Total Credits	13

<b>UWHC Curriculum for <u>General Sonography</u> - Summer year 2</b>	
C L SCI 461 Clinical Education VI	3
C L SCI 464 Intro Neurosonography	3
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<b>UWHC Curriculum for <u>Echocardiography</u> - Summer year 2</b>	
C L SCI 440 Clinical Education VI	3
C L SCI 441 Special Procedures in Echocardiography	3
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Questions about the Medical Science Major? Please contact Dr. Brenda del Moral, Biological Sciences Department, School of Arts and Sciences, [BdelMoral@edgewood.edu](mailto:BdelMoral@edgewood.edu), (608) 663-4283, Office in Sonderegger Science Center, room 327