

Bachelor of Science (B.S.)  
**Cardiovascular Sonography**  
Secondary Admission Application Required

2023 – 2024  
Catalog Year

1st Year					
Fall		Winter		Spring/Summer	
BIO 120: General Biology I <sup>GE Life Science</sup>	4	AHS 100: Medical Terminology	3		
<sup>1</sup> MTH 110: Algebra	4	BMS 250: Anatomy and Physiology I	4		
<sup>2</sup> WRT 150: Strategies in Writing <sup>GE Writing</sup>	4	MTH 122: College Algebra	3		
General Education <sup>GE Art</sup>	3	PSY 101: Intro. Psychology <sup>GE Social/Behavioral</sup>	3		
		SOC 105: Social Problems <sup>GE Social/Behav &amp; US Diversity</sup>	3		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>16</b>		
2nd Year ~ Apply to Program (by February 1 <sup>st</sup> )					
Fall		Winter		Spring/Summer	
BMS 251: Anatomy and Physiology II	4	PHY 220: General Physics I <sup>GE Physical Science</sup>	5		
<sup>3</sup> MTH 123: Trigonometry	3	AHS 301: Intro. Hlth Care Research <u>or</u>	3		
STA 215: Intro. Applied Statistics <sup>GE Math</sup>	3	<sup>4</sup> PSY 300: Research Mthds. in Psychology <sup>GE SWS</sup>			
General Education <sup>GE Philosophy and Literature</sup>	3	General Education <sup>GE Historical Analysis</sup>	3		
<sup>5</sup> Electives	2	General Education <sup>GE Global Perspectives</sup>	3		
		<sup>5</sup> Elective	1		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>		
3rd Year ~ CVS Program Admission Required					
Fall		Winter		Spring/Summer	
RIU 320/321: Ultrasound Physics I w/lab	3	RIU 324: Applied Doppler Ultrasound Physics	2	RIE 362: Echo. Clinical Ed. II	3
RIE 330/331: Echocardiography I w/ lab	6	RIE 332/333: Echocardiography II w/ lab	4	RIE 363 Ped. Echo Cl. Ed. I	
RIE 340: Cardiac & Vasc. Hemodynamics	2	RIE 361: Echocardiography Clinical Education I	2	<u>or</u> RIE 366 Vasc. Sono Cl. Ed. I	2
RIE 341: ECG in Radiologic Imaging Science	2	RIE 432/433: Vascular Sonography I w/ lab	3		
RIE 360: Intro. to Echo Clinical Ed.	2	RIT 441: Gross Human Sectional Anatomy	4		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>5</b>
4th Year ~ CVS Program Admission Required					
Fall		Winter		Spring/Summer	
RIU 420: Ultrasound Physics Instruction II	2	AHS 340: Health Care Management <sup>GE Issues</sup>	3		
RIE 434/435: Pediatric Echo I w/ lab	4	RIE 438: Pediatric Echocardiography II	3		
RIE 436/437: Vascular Sonography II w/ lab	4	RIE 439/440: Vascular Sonography III w/lab	3		
RIE 463 Pediatric Echo Clinical Ed II		RIE 457: Cardiovascular Image Evaluation	2		
<u>or...</u> RIE 466 Vasc. Sonography Cl. Ed. II	3	RIE 464: Pediatric Echo Clinical Education III	3		
General Education <sup>GE Issues</sup>	3	<u>or...</u> RIE 467: Vascular Sonography Clinical Ed. III			
		RIE 495 Adv. Clinical Prob. in Echo/Vasc Son. <sup>SWS</sup>	3		
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>17</b>		

Curriculum Notes:

- <sup>1</sup> MTH 108 and MTH 109 may be taken in place of MTH 110
- <sup>2</sup> WRT 120 & WRT 130 may be taken in place of WRT 150. ("C" or better is required in WRT 130 or WRT 150)
- <sup>3</sup> MTH 123 is not required for the CVS major and is only listed on this guide as a prerequisite to PHY 220.
- <sup>4</sup> PSY 300 may be used in place of AHS 301. AHS 301 is NOT an SWS.
- <sup>5</sup> Students may need elective courses to fulfill the 120 credits required to graduate.

- This is a suggested curriculum guide that might not be applicable to every student.
- Courses that include 'GE' are required in the major **AND** fulfill a General Education requirement.
- Two (2) Supplemental Writing Skills (SWS) courses are required.
- Student must have a **minimum of 120 credits** to graduate with **58 of the 120 credits** being from a senior level institution and the **final 30 of the 120 credits** completed at GVSU.

**College of Health Professions ~ Student Services Office**  
Cook-DeVos Center for Health Sciences, 301 Michigan St. NE, Room 113, Grand Rapids, MI 49503  
(616) 331-5900 or online at [www.gvsu.edu/chpss](http://www.gvsu.edu/chpss)

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✓	<b>Prerequisite Courses</b> (Grade of "C" or better required in prerequisite courses)	<b>College/University</b>	<b>Course</b>	<b>Grade</b>
	<b>BMS 250</b> Anatomy and Physiology I			
	<b>BMS 251</b> Anatomy and Physiology II			
	<b>AHS 100</b> Medical Terminology			
	<b>MTH 122</b> College Algebra			
	<b>PHY 220</b> General Physics I			
	<b>PSY 101</b> Introductory Psychology			
	<b>SOC 105</b> Social Problems			
	<b>STA 215</b> Introductory Applied Statistics			
	<b>AHS 301</b> Introduction to Health Care Research or... <b>PSY 300</b> Research Methods in Psychology			
✓	<b>Remaining General Education Requirements</b>	<b>Notes</b>		
	WRT 150: Strategies in Writing <u>or</u> WRT 120/130 ("C" or higher required)			
	Life Sciences			
	Arts			
	Historical Analysis			
	Philosophy and Literature			
	Global Perspectives			
	Two Supplemental Writing Skills Courses (prerequisite: WRT 150)			
	<ul style="list-style-type: none"> <li>One by taking a General Education <u>or</u> by taking PSY 300 <u>or</u> by MTA</li> <li>One by a designated course in major/program (at GVSU Only)</li> </ul>			
	Two Issues Courses (must have 55 credits or more and take at GVSU only)			
	<ul style="list-style-type: none"> <li>AHS 340...before or during the program</li> <li>A second Issues course selected by student after 55 credits earned</li> </ul>			

The **Cardiovascular Sonography** major at GVSU is **competitive and requires completion of a secondary application** which is available online at [www.gvsu.edu/cvs](http://www.gvsu.edu/cvs). Applications and all supplemental materials are due **February 1st**. Applicants must complete the prerequisite courses AND all the GVSU General Education courses prior to the start of the program in August. There are no waiting lists.

**Application Requirements:** Detailed application and admission requirements available at [www.gvsu.edu/cvs](http://www.gvsu.edu/cvs)

- ✓ GVSU Undergraduate Application – students must be admitted and eligible to start classes in the year of application
- ✓ Program Application & Supplemental Materials – found at [www.gvsu.edu/cvs](http://www.gvsu.edu/cvs)
- ✓ Transcripts – Official and updated copies of ALL non-GVSU transcripts sent directly to the GVSU Admissions Office (if not previously sent)
- ✓ Minimum 3.00 GPA in prerequisite courses and last 45 credits hours
- ✓ Minimum grade of "C" or better required in all prerequisite coursework
- ✓ Resume – to include a specific section listing ALL health care experiences (volunteer, paid, job shadow)
  - Volunteer or Work in Health Field – minimum 16 hours experience in a health field (due at time of application)
  - Job Shadow – 2-3 hour job shadow with a practitioner in your field of interest (due at time of application)
- ✓ Statement of Professional Goals – one to two-page statement addressing:
  - Why you are interested, what are *your* plans, and what influenced your decision to choose this career field?
- ✓ Two recommendations – on program specific forms (part of the program application)
- ✓ Verification of Course Completion form – Identify how required courses will be completed PRIOR to start of the program
- ✓ Meet all physical performance requirements and technical standards – details at [www.gvsu.edu/cvs](http://www.gvsu.edu/cvs)

**Admissions Considerations**

- Academic grade point average from prerequisite courses (40%)
- Academic grade point average from last 45 credit hours (10%)
- Interview and Writing Assessment completed on-site at the Cook-DeVos Center for Health Sciences (30%)
- Health Care Experience – a minimum 16 hours of volunteer/work experience AND 2-3 hours job shadow in a health field (5%)
- Additional considerations such as educational, leadership and research work experience and/or volunteer activities are valued (10%)
- Recommendations (5%)