

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

1st Year					
Fall		Winter		Summer	
¹ MTH 110: Algebra Prerequisite to MTH 122 & STA 215	4	AHS 100: Medical Terminology	3		
SOC 105: Social Problems GE Soc/Behav & US Div.	3	³ BIO 120: General Biology I GE Life Science	4		
² General Education Foundation- Writing	4	MTH 122: College Algebra	3		
General Education Course Art	3	PSY 101: Intro. Psychology GE Social/Behavioral	3		
Electives (as needed to reach 120 credits)	1	Electives (as needed to reach 120 credits)	1		
Total	15	Total	14		
2nd Year ~ Apply to Program (by February 1 st)					
Fall (Program application opens: Oct. 1 st)		Winter (Program application due: Feb. 1 st)		Summer	
⁴ BMS 250: Anatomy and Physiology I	4	⁶ AHS 301: Intro. Hlth Care Research <u>or</u> PSY 300	3		
⁵ MTH 123: Trigonometry (Prerequisite to PHY 220)	3	⁴ BMS 251: Anatomy and Physiology II	4		
STA 215: Intro. Applied Statistics GE Math	3	PHY 220: General Physics I GE Physical Science	5		
General Education Course Philosophy and Literature	3	General Education Course Global Perspectives	3		
General Education Course Historical Analysis	3				
Total	15	Total	15		
3rd Year ~ CVS Program Admission Required					
Fall		Winter		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		
RIU 360: Intro. to Clinical Ultrasound	2	RIT 441: Gross Human Sectional Anatomy	4		
Total	15	Total	15	Total	5
4th Year ~ CVS Program Admission Required					
Fall		Winter		Summer	
RIU 420: Ultrasound Physics Instruction II	2	AHS 340: Health Care Management GE Issues	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		
or... RIE 466 Vasc. Sonography Cl. Ed. II	3	RIE 464: Pediatric Echo Clinical Education III	3		
General Education GE Issues	3	or... RIE 467: Vascular Sonography Clinical Ed. III	3		
		RIE 495 Adv. Clinical Prob. in Echo/Vasc Son. SWS	3		
Total	16	Total	17		

Curriculum Notes:

- ¹ MTH 108 and MTH 109 or passing [Math 110 Placement test](#) may be taken in place of MTH 110.
- ² Student may take WRT 120 & WRT 130 or WRT 150 to meet their Foundation- Writing requirement. A grade of "C" or better is required in WRT 130 or WRT 150).
- ³ CMB 155 (lec) & 156 (lab) may be taken as a substitution. BIO 120 is only a prerequisite to BMS 250 and is not required by the major/program. See advisor!
- ⁴ Prerequisite is BIO 120 with a "C-" or better. Also, BMS 208, 290 and BMS 309 may be take in place of BMS 250 & 251. BMS 391 is not required.
- ⁵ MTH 123 is not required for the CVS major and is only listed on this guide as a prerequisite to PHY 220.
- ⁶ PSY 300 (SWS) may be used in place of AHS 301. AHS 301 is NOT an SWS.

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. Elective coursework may be necessary to meet these requirements.

√	Prerequisite Courses (Grade of "C" or better required in prerequisite courses)	College/University	Course	Grade
	BMS 250 Anatomy and Phys. I & BMS 251 Anatomy and Phys. II or BMS 208, 290 and 309 (BMS 391 is not required)			
	AHS 100 Medical Terminology			
	MTH 122 College Algebra			
	PHY 220 General Physics I			
	PSY 101 Introductory Psychology			
	SOC 105 Social Problems			
	STA 215 Introductory Applied Statistics			
	AHS 301 Introduction to Health Care Research or... PSY 300 Research Methods in Psychology			
√	Remaining General Education Requirements	Notes		
	Foundational- Writing: WRT 120 & 130 <u>or</u> WRT 150 ("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"> One by taking a General Education <u>or</u> by taking PSY 300 <u>or</u> by MTA One by a designated course in major/program (at GVSU Only) 			
	Two Issues Courses (must have 55 credits or more and take at GVSU only) <ul style="list-style-type: none"> AHS 340...before or during the program A second Issues course selected by student after 55 credits earned 			

The **Cardiovascular Sonography** major at GVSU is **competitive and requires completion of a secondary application** which is available online at 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

- ✓ 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
- ✓ 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

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%)

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/chpps