

# **Diagnostic Ultrasound Technology**

Associate in Arts Degree

| STUDENT NAME  | SID# |  |
|---------------|------|--|
| PROGRAM CHAIR | DATE |  |

| PROGRAM REQUIREMENTS                  |  | Requested Substitution/Transfer<br>Credits (if applicable) |                    |        | Completed |       |         |      |  |
|---------------------------------------|--|--|--------------------|--------|-----------|-------|---------|------|--|
| Course                                | Course Title   | CR   | College/University | Course | CR        | Grade | Quarter | Year |  |
| PREREQUISI                            | PREREQUISITES  |  |                    |        |           |       |         |      |  |
| AHE 110                               | Medical Terminology  | 5  |                    |        |           |       |         |      |  |
| BIOL& 241                             | Human Anatomy & Physiology I   | 6  |                    |        |           |       |         |      |  |
| BIOL& 242                             | Human Anatomy & Physiology II  | 6  |                    |        |           |       |         |      |  |
| MATH 130                              | Introduction to Statistics   | 5  |                    |        |           |       |         |      |  |
| PHYS& 100                             | Physics – Basic Concepts   | 5  |                    |        |           |       |         |      |  |
| Choose 5 Cred                         | dits from the following  | 5  |                    |        |           |       |         |      |  |
| CMST& 230<br>CMST 250<br>CMST 280     | Small Group Communication (5 Cr) Communication in a Diverse Workplace (5 Cr) Intercultural Communication (5 Cr) Any Other Cultural Diversity Requirement Course (5 Cr) |  |                    |        |           |       |         |      |  |
| Choose 5 Credits from the following 5 |  | 5  |                    |        |           |       |         |      |  |
| ENGL 201<br>ENGL& 235                 | The Research Paper (5 Cr)<br>Technical Writing (5 Cr)  |  |                    |        |           |       |         |      |  |

| GENERAL ULTRASOUND           |   |     |  |  |  |  |  |  |
|------------------------------|---|-----|--|--|--|--|--|--|
| FIRST YEAR                   | - FALL QUARTER                                |     |  |  |  |  |  |  |
| DUTEC 100                    | Introduction to Diagnostic Medical Sonography | 3   |  |  |  |  |  |  |
| DUTEC 105                    | Pathophysiology I                             | 3   |  |  |  |  |  |  |
| DUTEC 107                    | Human Cross—Section Anatomy                   | 7   |  |  |  |  |  |  |
| DUTEC 130                    | Small Parts with Vasculature Sonography       | 3   |  |  |  |  |  |  |
| DUTEC 170                    | Ultrasound Physics and Instrumentation I      | 3   |  |  |  |  |  |  |
| FIRST YEAR                   | - WINTER QUARTER                              |     |  |  |  |  |  |  |
| DUTEC 106                    | Pathophysiology II                            | 3   |  |  |  |  |  |  |
| DUTEC 110                    | Abdominal Scanning & Techniques               | 5   |  |  |  |  |  |  |
| DUTEC 135                    | General Ultrasound Lab                        | 3   |  |  |  |  |  |  |
| DUTEC 171                    | Ultrasound Physics & Instrumentation II       | 3   |  |  |  |  |  |  |
| FIRST YEAR                   | - SPRING QUARTER                              |     |  |  |  |  |  |  |
| DUTEC 112                    | Pathophysiology III                           | 3   |  |  |  |  |  |  |
| DUTEC 120                    | Obstetrics & Gynecological Sonography         | 5   |  |  |  |  |  |  |
| DUTEC 145                    | General Ultrasound Lab II                     | 4   |  |  |  |  |  |  |
| DUTEC 160                    | Vascular Ultrasound Technology                | 3   |  |  |  |  |  |  |
| FIRST YEAR                   | - SUMMER QUARTER                              |     |  |  |  |  |  |  |
| DUTEC 102                    | Practical Aspects of Sonography               | 3   |  |  |  |  |  |  |
| DUTEC 113                    | Pathophysiology IV                            | 3   |  |  |  |  |  |  |
| DUTEC 165                    | General Ultrasound Lab III                    | 3   |  |  |  |  |  |  |
| DUTEC 180                    | Advanced Studies: Obsterics                   | 3   |  |  |  |  |  |  |
| SECOND YE                    | AR – FALL QUARTER                             |     |  |  |  |  |  |  |
| DUTEC 210                    | Clinical Practicum I                          | 13  |  |  |  |  |  |  |
| SECOND YE                    | AR – WINTER QUARTER                           |     |  |  |  |  |  |  |
| DUTEC 220                    | Clinical Practicum II                         | 13  |  |  |  |  |  |  |
| SECOND YE                    | AR – SPRING QUARTER                           |     |  |  |  |  |  |  |
| DUTEC 230                    | Clinical Practicum III                        | 13  |  |  |  |  |  |  |
| SECOND YEAR – SUMMER QUARTER |   |     |  |  |  |  |  |  |
| DUTEC 240                    | Clinical Practicum IV                         | 13  |  |  |  |  |  |  |
| GENERAL U                    | TRASOUND GRAND TOTAL                          | 112 |  |  |  |  |  |  |
|                              |   |     |  |  |  |  |  |  |



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| PROGR/     | AM REQUIREMENTS                               |     |                    | stitution/Transfe<br>f applicable) | er |       |         |      |
|------------|---|-----|--------------------|------------------------------------|----|-------|---------|------|
| Course     | Course Title                                  | CR  | College/University | Course                             | CR | Grade | Quarter | Year |
| VASCULAR   | TECHNOLOGY ULTRASOUND                         |     |                    |                                    |    |       |         |      |
| FIRST YEAR | - FALL QUARTER                                |     |                    |                                    |    |       |         |      |
| DUTEC 100  | Introduction to Sonography                    | 3   |                    |                                    |    |       |         |      |
| DUTEC 105  | Pathophysiology I                             | 3   |                    |                                    |    |       |         |      |
| DUTEC 107  | Human Cross—Section Anatomy                   | 7   |                    |                                    |    |       |         |      |
| DUTEC 130  | Small Parts with Vasculature Sonography       | 3   |                    |                                    |    |       |         |      |
| DUTEC 170  | Ultrasound Physics and Instrumentation I      | 3   |                    |                                    |    |       |         |      |
| FIRST YEAR | – WINTER QUARTER                              | '   |                    |                                    | '  |       |         |      |
| DUTEC 106  | Pathophysiology II                            | 3   |                    |                                    |    |       |         |      |
| DUTEC 110  | Abdominal Scanning & Techniques               | 5   |                    |                                    |    |       |         |      |
| DUTEC 135  | General Ultrasound Lab                        | 3   |                    |                                    |    |       |         |      |
| DUTEC 171  | Ultrasound Physics & Instrumentation II       | 3   |                    |                                    |    |       |         |      |
| FIRST YEAR | A – SPRING QUARTER                            |     |                    | ı                                  |    |       |         |      |
| DUTEC 112  | Pathophysiology III                           | 3   |                    |                                    |    |       |         |      |
| DUTEC 120  | Obstetrics & Gynecological Sonography         | 5   |                    |                                    |    |       |         |      |
| DUTEC 146  | Vascular Technology Lab I                     | 4   |                    |                                    |    |       |         |      |
| DUTEC 160  | Vascular Ultrasound Technology                | 3   |                    |                                    |    |       |         |      |
|            | R – SUMMER QUARTER                            |     |                    |                                    |    |       |         |      |
| DUTEC 102  | Practical Aspects of Sonography               | 3   |                    |                                    |    |       |         |      |
| DUTEC 113  | Pathophysiology IV                            | 3   |                    |                                    |    |       |         |      |
| DUTEC 166  | Vascular Technology Lab II                    | 3   |                    |                                    |    |       |         |      |
| OUTEC 182  | Advanced Studies: Vascular Technology         | 3   |                    |                                    |    |       |         |      |
|            | EAR – FALL QUARTER                            |     |                    |                                    |    |       |         |      |
| DUTEC 210  | Clinical Practicum I                          | 13  |                    |                                    |    |       |         |      |
|            | EAR – WINTER QUARTER                          | 1.5 |                    |                                    |    |       |         |      |
| DUTEC 220  | Clinical Practicum II                         | 13  |                    |                                    |    |       |         |      |
|            | EAR — SPRING QUARTER                          | 13  |                    |                                    |    |       |         |      |
| DUTEC 230  | Clinical Practicum III                        | 13  |                    |                                    |    |       |         |      |
|            | EAR – SUMMER QUARTER                          | 13  |                    |                                    |    |       |         |      |
| DUTEC 240  | Clinical Practicum IV                         | 13  |                    |                                    |    |       |         |      |
|            | TECHNOLOGY ULTRASOUND GRAND TOTAL             |     |                    |                                    |    |       |         |      |
|            |   | 112 |                    |                                    |    |       |         |      |
| ECHOCARD   | OGRAPHY ULTRASOUND                            |     |                    |                                    |    |       |         |      |
| FIRST YEAR | R – FALL QUARTER                              |     |                    |                                    |    |       |         |      |
| DUTEC 100  | Introduction to Diagnostic Medical Sonography | 3   |                    |                                    |    |       |         |      |
| DUTEC 105  | Pathophysiology I                             | 3   |                    |                                    |    |       |         |      |
| DUTEC 107  | Human Cross—Section Anatomy                   | 7   |                    |                                    |    |       |         |      |
| DUTEC 125  | Congenital Heart Disease                      | 3   |                    |                                    |    |       |         |      |
| DUTEC 170  | Ultrasound Physics and Instrumentation I      | 3   |                    |                                    |    |       |         |      |
| FIRST YEAR | - WINTER QUARTER                              |     |                    |                                    |    |       |         |      |
| DUTEC 106  | Pathophysiology II                            | 3   |                    |                                    |    |       |         |      |
| DUTEC 137  | Echocardiography Lab I                        | 3   |                    |                                    |    |       |         |      |
| DUTEC 150  | Basic Echocardiography                        | 4   |                    |                                    |    |       |         |      |
| DUTEC 171  | Ultrasound Physics & Instrumentation II       | 3   |                    |                                    |    |       |         |      |
| FIRST YEAR | - SPRING QUARTER                              |     |                    |                                    |    |       |         |      |
| DUTEC 147  | Echocardiography Scanning Lab II              | 4   |                    |                                    |    |       |         |      |
| DUTEC 155  | Echocardiography                              | 5   |                    |                                    |    |       |         |      |
| DUTEC 160  | Vascular Ultrasound Technology                | 3   |                    |                                    |    |       |         |      |
| DUTEC 200  | Stress, EKG and Auscultation for Echo         | 4   |                    |                                    |    |       |         |      |
|            | R – SUMMER QUARTER                            |     |                    |                                    |    |       |         |      |



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| PROGRAM REQUIREMENTS         |                                    |     | Requested Substitution/Transfer<br>Credits (if applicable) |        |    |       |         |      |
|------------------------------|------------------------------------|-----|--|--------|----|-------|---------|------|
| Course                       | Course Title                       | CR  | College/University   | Course | CR | Grade | Quarter | Year |
| DUTEC 102                    | Practical Aspects of Sonography    | 3   |  |        |    |       |         |      |
| DUTEC 167                    | Echocardiography Scanning Lab III  | 3   |  |        |    |       |         |      |
| DUTEC 181                    | Advanced Studies: Echocardiography | 3   |  |        |    |       |         |      |
| DUTEC 190                    | Pediatric Echocardiography         | 3   |  |        |    |       |         |      |
| SECOND YE                    | AR – FALL QUARTER                  |     |  |        |    |       |         |      |
| DUTEC 210                    | Clinical Practicum I               | 13  |  |        |    |       |         |      |
| SECOND YE                    | AR – WINTER QUARTER                |     |  |        |    |       |         |      |
| DUTEC 220                    | Clinical Practicum II              | 13  |  |        |    |       |         |      |
| SECOND YE                    | AR – SPRING QUARTER                |     |  |        |    |       |         |      |
| DUTEC 230                    | Clinical Practicum III             | 13  |  |        |    |       |         |      |
| SECOND YEAR – SUMMER QUARTER |                                    |     |  |        |    |       |         |      |
| DUTEC 240                    | Clinical Practicum IV              | 13  |  |        |    |       |         |      |
| ECHOCARDI                    | OGRAPHY ULTRASOUND GRAND TOTAL     | 112 |  |        |    |       |         |      |

Diagnostic Ultrasound Technology uses energy in the form of ultrasound to diagnose pathology and assess fetal well-being. The Associate of Arts degree in Diagnostic Ultrasound provides training in ultrasound patient services and related diagnostic techniques. The program offers training in the following specialty tracks: General (Abdomen & OB/GYN); Vascular Technology; and Echocardiography. Students must declare their specialty track of sonography practice at time of application. The program uses a selective-admissions process, with admissions guidelines published annually. Graduates are eligible to apply to take the American Registry of Diagnostic Medical Sonography and the American Registry of Radiologic Technology examination. It is accredited by the Commission on Accreditation of Allied Health Education Programs.

Sonographers have extensive, direct patient contact that may include performing some invasive procedures. They must be able to interact compassionately and effectively with people who range from healthy to critically ill.

#### **LEARNING OUTCOMES**

Degree recipients should possess the skills & abilities described below:

Function in the capacity as an entry-level sonographer; acquiring diagnostic ultrasound images of the patient's anatomy to aid the physician in the diagnosis of various pathological conditions

- Act in the best interests of the patient and the institution through the prudent use of safety measures, techniques and equipment to prevent harm to patient, facility or oneself
- Act within the Ultrasonography Scope of Practice as outlined by the Society of Diagnostic Medical Sonographers
- Exercise independent judgment and discretion in the technical performance of medical imaging procedures
- Assimilate pertinent clinical information, ultrasound findings and knowledge of normal and abnormal conditions into a cohesive and complete ultrasound examination for interpreting physicians
- Communicate effectively with patients, family members, hospital staff, and the general public, and demonstrate professionalism in all actions and communications

## FOR MOST UP-TO-DATE INFORMATION, GO TO:

www.bellevuecollege.edu/programs/degrees/proftech/dutec/#dutecdegree

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## **CULTURAL DIVERSITY REQUIREMENT (CDR)**

Below is a complete listing of all the courses that meet the college's Cultural Diversity requirements for the Associate Transfer Degrees. Classes will be applied toward either the Humanities, Social Science, Natural Sciences or electives.

### **Transferable Courses:**

- *Anthropology* 100, 104, 106, 108, 117, 180, 200, 206, 208, 209, 210, 211, 212, 214, 219, 220, 222, 224, 235, 260, 265;
- **Art** 103
- Cultural and Ethnic Studies 100, 101, 106, 109, 120, 121, 130, 140, 152, 180, 200, 201, 203, 205, 210, 241, 257;
- **Communication Studies** 134, 250, 280
- French 131, 132, 133, 231, 232, 233

- **Geography** 123, 200, 277
- *History* 185, 246
- International Studies 123
- **Music** 117
- *Philosophy* 102, 145, 265
- Psychology 250
- Sociology 101, 120, 121, 122, 201, 205, 210, 215, 222, 230, 248, 249, 253, 254, 257, 260, 262, 264, 267, 268, 275

#### **Restrictive Electives:**

- Allied Health 140
- **Business** 120, 241
- Criminal Justice 242
- **Education** 150, 240, 286
- Human Development 140
- Marketing Management 200
- Nursing 290

For more information, go to: www.bellevuecollege.edu/programs/degrees/culturaldiversity/