## CARDIOTHORACIC SURGERY (CVSUR-ML)

### CVSUR-ML 4009 Cardiothoracic Critical Care (2 Credits)
"The student will actively participate in the assessment and treatment of the patients in the cardiothoracic intensive care unit. This will include both preoperative and postoperative patients, ventilator management, management of inotropic and vasopressor infusions, management of patients in cardiogenic shock with assist devices including intra-aortic balloon pump, Impella and extracorporeal membrane oxygenation. The student will develop an appropriate knowledge base as to indicated procedures, population and outcome data for those procedures, the risks and benefits of operative interventions and alternatives. The students will be in direct contact and have one-on-one interaction with the attending physicians. There will be a series of didactic lectures during the rotation."

**Grading:** SOM Graded  
**Repeatable for additional credit:** Yes

### CVSUR-ML 4010 Cardiothoracic Critical Care (4 Credits)
"The student will actively participate in the assessment and treatment of the patients in the cardiothoracic intensive care unit. This will include both preoperative and postoperative patients, ventilator management, management of inotropic and vasopressor infusions, management of patients in cardiogenic shock with assist devices including intra-aortic balloon pump, Impella and extracorporeal membrane oxygenation. The student will develop an appropriate knowledge base as to indicated procedures, population and outcome data for those procedures, the risks and benefits of operative interventions and alternatives. The students will be in direct contact and have one-on-one interaction with the attending physicians. There will be a series of didactic lectures during the rotation."

**Grading:** SOM Graded  
**Repeatable for additional credit:** Yes

### CVSUR-ML 4011 Cardiothoracic Surgery (2 Credits)
"The student will actively participate operative interventions, preoperative evaluation and in the postoperative management. The student will develop an appropriate knowledge base as to indicated procedures, population and outcome data for those procedures, the risks and benefits of operative interventions and alternatives. The students will be in direct contact with the attending physicians. There will be a series of didactic lectures on major disease processes requiring cardiac surgical intervention."

**Grading:** SOM Graded  
**Repeatable for additional credit:** Yes

### CVSUR-ML 4012 Cardiothoracic Surgery (4 Credits)
"The student will actively participate operative interventions, preoperative evaluation and in the postoperative management. The student will develop an appropriate knowledge base as to indicated procedures, population and outcome data for those procedures, the risks and benefits of operative interventions and alternatives. The students will be in direct contact with the attending physicians. There will be a series of didactic lectures on major disease processes requiring cardiac surgical intervention."

**Grading:** SOM Graded  
**Repeatable for additional credit:** Yes

### CVSUR-ML 4163 Structural Heart Surgery (2 Credits)  
**Typically offered Fall and Spring**
Over the past few years, the development of Trans-catheter-based therapy (treatment of structural and valve disease through minimally invasive approach) has been rapidly developing and is becoming the primary method of treatment for many forms of structural heart disease. In this rotation, students will be learning about this exciting development that has revolutionized the approach to heart disease and valve surgery. They will participate in the perioperative, intra-operative and post-operative care of patients, and the weekly multi-disciplinary structural heart conferences prior to interventions to have a clear understanding of the risks, benefits and alternative options to the treatment of structural heart disease – the algorithms ranging from medical therapy, open heart surgery and trans catheter management. Having the knowledge of the different treatment options will help them as primary care physicians to discuss the various management available prior to referral.

**Grading:** SOM Graded  
**Repeatable for additional credit:** No

### CVSUR-ML 4164 Structural Heart Surgery (4 Credits)  
**Typically offered Fall and Spring**
Over the past few years, the development of Trans-catheter-based therapy (treatment of structural and valve disease through minimally invasive approach) has been rapidly developing and is becoming the primary method of treatment for many forms of structural heart disease. In this rotation, students will be learning about this exciting development that has revolutionized the approach to heart disease and valve surgery. They will participate in the perioperative, intra-operative and post-operative care of patients, and the weekly multi-disciplinary structural heart conferences prior to interventions to have a clear understanding of the risks, benefits and alternative options to the treatment of structural heart disease – the algorithms ranging from medical therapy, open heart surgery and trans catheter management. Having the knowledge of the different treatment options will help them as primary care physicians to discuss the various management available prior to referral.

**Grading:** SOM Graded  
**Repeatable for additional credit:** No