### UT SOUTHWESTERN DEPARTMENT OF SURGERY
#### TECHNICAL SKILLS COURSE OUTLINE

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>End-to-Side vascular anastomosis</th>
</tr>
</thead>
</table>
| Course Director: | Name: R. James Valentine, MD, FACS  
Specialty: Vascular Surgery |
| Participants: | Specialty: General Surgery Categorical Residents  
Level: PGY-3  
Number: 16 |
| Training Duration: | Time 1.5 hrs  
Repetition-based 15-20 suture reps  
Proficiency-based score |
| Location: | J-9 OR |
| Equipment/Simulators: | Suture boards, binder clips, 5-0 prolene suture, needle drivers, forceps,  
suture scissors, porcine ex vivo model |
| Educational Scope: | Skills: creation of an end-to-side vascular anastomosis in a ex vivo  
porcine model  
Cognitive: teaching technical aspects of arterial exposure, handling  
prolene suture, and preparing grafts  
Judgment: understanding the different types of vascular grafts and when to use them |
| Learning Objectives: | 1) Understand the basics of arterial exposure technique, suture handling,  
and graft preparation  
2) Understand the physiology of graft healing  
3) Understand the appropriate circumstances for using different types of  
grafts  
4) Demonstrate an end-to-side vascular anastomosis. |

**Summary of Curriculum, Teaching Methods, and Resource Utilization:**

1. Preliminary seminar session led by faculty.
   A. Teach the basics of vascular exposure, including: length of incisions, techniques for extending incisions across joints, proper depth of dissection, and adequate mobilization of vascular structures.
B. Discuss the physiology of graft healing and outline major differences in graft types (autogenous vs. prosthetic; PTFE vs. Dacron)
C. Draw the end-to-side anastomosis and demonstrate proper handling of needle driver, sture, and graft.

2. Skill session. Two residents/suture board. One acts as surgeon and the other acts as assistant, then switch. Demonstrate the end-to-side anastomosis.

Methods for giving feedback to learners (Formative and Summative):
Direct observation with immediate feedback. The faculty observes each team throughout the session and comments on individual performance.

Methods for Assessment of Learners:
Questions to assess learning cognitive information. Direct observation of skill with immediate feedback.

Methods for Course Evaluation: by Learners: E-Value online system
By Faculty: E-Value online system