

**Learning Objectives – Textiles and Composites**  
**BE-410, Fall '06, Dr. C. S. Tritt**

Be able to name and briefly describe 3 types of textiles having biomedical uses.

Be able to explain the difference between monofilament and multifilament thread and yarn.

Be able to describe 2 types of multifilament thread and yarn.

Be able to name and describe (probably using a sketch) 4 general fabric structures.

Be able to name 4 of the types of non-absorbable polymers used in biomedical textile applications that were described in lecture.

Be able to name 2 of the types of absorbable polymers used in biomedical textile applications that were described in lecture.

Be able to explain the difference between monofilament and multifilament thread.

Be able to describe 4 types of fabric structures.

Be able to explain the relative advantages of knitted or braided fabrics to woven fabrics in typical biomedical applications.

Be able to describe three processes that are typically used in the manufacture of vascular grafts.

Be able to explain how crimping can enhance the performance of textile tubes used as vascular grafts.

Be able to describe how “carbon” fibers are typically produced (including name the starting material).

Be able to explain what composites are.

Be able to list 4 important attributes of composites that make them attractive materials.

Be able to name or describe 2 important types (shapes) of reinforcing materials used in composites.

Be able to describe one common technique (processes) used in the production of composite materials.