

UNIVERSITY OF RHODE ISLAND
College of Human Science and Services
TMD 403: Textile Performance

Good quality and serviceability requires that a textile product meet certain criteria, described in /performance specifications/. Specifications are based on laboratory testing. These tests are only useful if they are standardized. The most widely accepted tests for textile products are those developed by ASTM and AATCC.

The course examines how "quality" in textile materials may be judged, and how it may be predicted both by consumer perceptions and by the results of real-life trials and laboratory tests. The development of both product specifications and test methods is discussed. Achieving reliable test data, and the statistical handling of that data are dealt with. Test methods in the areas of characterization, strength and elongation, wear, colorfastness, appearance, flammability, absorbency and aesthetics will be critically compared.

At the end of this course, the student will understand quality in textile products and the methods to assess it. The student will be familiar with the development of specifications and test methods by Government, Trade Associations and Industry. The student will be able to carry out procedures for routine testing of established products. More importantly, the student will be able to develop plans for sample selection and testing, and to set up procedures to determine the effects of treatments on fabric properties in non-routine testing.

The course should be of value to all TMD and TM majors since it directly affects all areas of the textile product supply chain: designers should be able to specify requirements, while buyers, merchandisers and marketers will need to see that products will meet their customer needs. Process and product development in all phases of the textile industry is based on the ability to measure improvement, in turn based on the use of testing. The global nature of the textile supply chain makes standard testing essential if satisfactory materials are to reach the stores. There is a continuing demand for graduates of TM and TMD who know product testing and quality control.

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