

## Materials and Textiles

### BS Degree in Materials: Materials Technology Option

#### Requirements

#### Semester Credits

This program of study offers a unique blend of courses in the materials sciences, manufacturing, and management.

The linking of science, engineering and management addresses the objectives of the many small and medium-sized technology companies in New England.

This innovative program is designed to prepare students for careers in small and large companies that develop or use new materials for advanced technology in a broad range of areas including medical devices, sports, electronics, optics, textiles, food and cosmetics.

#### Business Administration Minor

The courses in Business Information Systems, Accounting, Management, Marketing, and Economics comprise a special version of the Business Administration Minor offered by the Charlton College of Business. Student's transcripts will display the Textile Sciences major and a Business Administration minor.

#### Specialization

Students should choose a group of electives in the final year to provide a specialization in Textiles, Biomaterials, Electronic Materials or another area to be agreed with the advisor.

#### First Year

ENL 101, 102	Critical Writing and Reading I, II	3	3
MTH 101, 102	Elements of College Math I, II	3	3
GBA 101	The Business Organization I, II	1.5	1.5
TES 105	Contemporary Issues in Materials Science	3	
TES 110	Environmental Science and Business		3
	General Education Electives	3	6
		<b>13.5</b>	<b>16.5</b>

#### Second Year

ACT 211,212	Accounting I, II	3	3
TES 201	Mechanical Properties of Materials		3
ECO 231,232	Principles Micro/Macroeconomics	3	3
MGT 212	Business Statistics	3	
MKT 211	Principles of Marketing	3	
ENL 265	Business Communications		3
TES 252	Materials Seminar	1	
	General Education Electives	3	3
		<b>16</b>	<b>15</b>

#### Third Year

TES 300	Textile Structures and Properties	4	
TES 301	Materials Processing I	4	
TES 304	Elec & Optical Properties of Materials		3
TES 305	Materials Testing		4
TES 310	Statistical Quality Control	3	
TES 321	Soft Materials and Fluids	3	
FIN 312	Financial Management		3
BIS 315	Information Systems	3	
MGT 311	Organizational Behavior		3
		<b>17</b>	<b>16</b>

#### Fourth Year

TES 401	Materials Processing II	4	
TES 402	Advanced Materials and Composites		3
TES 421	Biological and Biomedical Materials	3	
MGT 333	Quantitative Business Analysis	3	
MGT 345	Operations Management		3
TES 460	Materials Selection and Design		3
TES 463	Senior Project/Research Experience	3	
	Technical Elective	3	6
		<b>16</b>	<b>15</b>

#### Total Credits:

**125**

*Note:* In the junior and senior years some materials science courses maybe offered every other year. Upperclass students must take these courses when offered as soon as possible, otherwise they will not graduate on time.

#### General Education Departmental Requirements

Students majoring in Materials Science and Business Option will meet their departmentally-controlled General Education requirements as follows:

Area E Satisfied by ECO 231 or TES 105

Area I, Tier 2: Satisfied by TES 402 or TES 463

Area W, Tier 2: Satisfied by ENL 265

Area O: Satisfied by TES 252 or TES 463