



theory and linear algebra will be briefly reviewed at the beginning of the sequence. The main approach to the representation theory as presented in this sequence is via group modules. Practical aspects of the subject are emphasized and the course abounds in examples and computations related to a variety of finite groups appearing in mathematics, physics and chemistry. Examples may also include character tables of all groups of order less than 32 as well as those of all p-groups of order at most  $p^4$ .

#### **IV. STUDENT LEARNING OUTCOMES:**

Learning Outcomes for 6240: Upon successful completion of this course, students will understand the representation theory of finite groups such as permutation groups, alternating groups, dihedral groups and groups expressed

10. Character table of  $GL(2,q)$  (optional)
11. Permutations and characters

be completed as soon as possible, preferably by the end of the first week of the course. The AEC is located in the Roaden University Center, Room 112; phone 931-372-6119. For details, view the Tennessee Tech's Policy 340 – [Services for Students with Disabilities at Policy Central](#).