**< Multifunctional Microwave Devices and Circuits> Course Description**

Course: Multifunctional Microwave Devices and Circuits

Course No.: 3122102320/3122102321

Credit / Course Hours: Electronic Science and Technology and Electronic Information Science and Technology

Preparatory Course: 2/32

Course Description:

Starting from the basic transmission-line theory, this course introduces the main new transmission line structures and related theories put forward by academia at present. By explaining impedance transformers, power dividers, couplers, baluns and multi-port circuits, the microwave devices and circuits with multi-frequency matching and multi-function fusion technology based on the new transmission-line theory are emphatically expounded. Finally, the latest applications of multi-functional microwave devices and circuits in terminal chips, power amplifiers, antennas and antenna arrays are explained, as well as the important national demand for the development of multi-frequency and multi-mode microwave devices.