Topics	Allocated Periods
Introduction to LabVIEW, Hooking the Computer up to the Real World, LabVIEW Environment, LabVIEW Foundation, Cluster, Arrays, Structures in LabVIEW, Graphs Charts and File I/O, Getting date In and Out of Computer, DAQ and Intrument Control in LabVIEW, Functions and Structures and Communication. Transducers and Optical Techniques, Temperature, Pressure, Velocity , Species concentration, Vibration, Stress and strain, Lasers and laswer diagnostics, Computer Based data acquisition, digital I/O and counter/timers. Frequency Analysis, Frequency content of signals , Fourier Series, Fourier transform and frequency spectrum, discrete Fourier transform , Sample rate and aliasings.	45
Digital Filtering: Transform function, first and second order. Bode plots digital filters, difference equation, discretising continuous-time filters.	