

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI
PROFORMA FOR NEW COURSE

1.	Title of the Course	Chemistry Laboratory
2.	Course Number	CY1204
3.	Status of the Course	Core
4.	Structure of Credits	0-0-3-2
5.	Offered To	UG
6.	New Course/Modification to	New
7.	To be Offered by	Department of Chemistry
8.	To take effect from	July 2018
9.	Prerequisite	NIL
10.	Whether approved by the Department	Yes
11.	Course Objective: This course provides a practical experience of synthesis, estimation and extraction techniques to deal with different horizon of chemistry. These experiments allow to verify many of the fundamental concepts gathered from class room lectures.	
12.	Course Content: 1. Quantitative analysis: Gravimetric estimation of nickel(II) as dimethylglyoximate complex 2. Volumetric analysis: Preparation of potassium bis(oxalato)cuprate(II) dihydrate complex and volumetric estimation of oxalate content in the complex 3. Drug: Preparation and purification of aspirin an analgesic drug 4. Water Quality: Hardness in water by complexometry 5. Natural Product: Extraction of caffeine from tea leaves 6. Material analysis: Copper content in Brass by colorimeter 7. Food world: Acid strength of citrus fruit juices by pH meter and conductometer 8. Reaction Kinetics: Ester hydrolysis	
13.	Text book(s): 1. A. I. Vogel, <i>Textbook of Practical Organic Chemistry</i> , Facsimile Publisher, (2016). 2. G. Svehla and B. Sivasankar, <i>Vogel's Qualitative Inorganic Analysis</i> , Pearson Education India, (2012).	
14.	Reference(s): 1. NA, NA, NA, (Select).	