Arts, Science and Commerce College, Indapur, Dist. Pune

TEACHING AND EVALUATION PLAN

Name of the teacher: Prof Gound K.B **Year:2018-2019** **Semester: III**

Subject: Analytical Chemistry **CHA-392** **Class: M.Sc II**

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Aug 2018	1&2	10	8	**1) Atomic spectroscopy (12L)** Theory, source, burner, atomic theory of emission spectra, atomic absorptionspectra,AAS,AES,ICPAES, Cold vapour techaqniue, standard addition ,FES .	8	1) Atomic spectroscopy (12L) Theory, source, burner, atomic theory of emission spectra, atomic absorptionspectra,AAS,AES,ICPAES, Cold vapour techaqniue, standard addition ,FES .	Nil	–
2	Aug 2018	3&4	11	8	**Solid phase micro-extraction (6 L)** Introduction, theoretical considerations, experimental, Methods of analysis: SPMEGC, Methods of analysis: SPME-HPLC-MS, Automation of SPME, New development in micro extraction (liquid micro extraction, membrane micro	8	Solid phase micro-extraction (6 L) Introduction, theoretical considerations, experimental, Methods of analysis: SPMEGC, Methods of analysis: SPME-HPLC-MS, Automation of SPME, New development in micro extraction (liquid micro extraction, membrane micro	Nil	–
3	Sept 2018	1&2	10	8	**3) classical Approach for Aqueous Extraction (6L)** Introduction, principle of liquid -liquid	8	3) classical Approach for Aqueous Extraction (6L) Introduction, principle of liquid -liquid	Nil	–

					extraction, theory, purge and trap volatile aq.sample **4) Supercritical Fluids Extraction (3L)** Introduction, Instrumentation,		extraction, theory, purge and trap volatile aq.sample 4) Supercritical Fluids Extraction (3L) Introduction, Instrumentation,	
4	Sept 2018	3&4	11	8	Application. **5) Atomic Mass spectrometry (6L** **6) Microwave assisted Extraction (3L)** Introduction, Instrumentation,	8	Application. 5) Atomic Mass spectrometry (6L 6) Microwave assisted Extraction (3L) Introduction, Instrumentation,	Nil
5	Oct 2018	1&2	10	8	Application. **7) Solid Phase Extraction (6L)** Introduction,types ,SPE format and Apparatus,SPE media, method of Operation, factor affecting SPE,Automation of online SPE.	8	Application. 7) Solid Phase Extraction (6L) Introduction,types ,SPE format and Apparatus,SPE media, method of Operation, factor affecting SPE,Automation of online SPE.	Nil
6	Oct 2018	3&4	11	8	**AtomicIonization and laser based-Enhanced Ionization: (Ref-1) (6 L)** Atomic Fluorescence Spectroscopy (AFS): Atomic fluorescence, apparatus for AFS, EMR source for AFS, LASERS, Cells for AFS, Plasmas, Wavelength selection for AFS, Detectors for AFS, Theory of AFS, Analysis with AFS, Interference With AFS.	8	AtomicIonization and laser based-Enhanced Ionization: (Ref-1) (6 L) Atomic Fluorescence Spectroscopy (AFS): Atomic fluorescence, apparatus for AFS, EMR source for AFS, LASERS, Cells for AFS, Plasmas, Wavelength selection for AFS, Detectors for AFS, Theory of AFS, Analysis with AFS, Interference With AFS.	

4	Feb 2019	3&4	12	8	NOx, dissolved NOx, nitrites,ammonia,Urea and other nitrogen compound in the effluent fertilizer explosive, industrial effluent. **6) Analysis of Blood and Urine (6L)** Determination of blood by glucose oxidation method, Benedict method, glucose tolerance test, Bilirubin Method,critinine method, inorganic phosphate,Na,k,by flame photometric method.	8	NOx, dissolved NOx, nitrites,ammonia,Urea and other nitrogen compound in the effluent fertilizer explosive, industrial effluent. 6) Analysis of Blood and Urine (6L) Determination of blood by glucose oxidation method, Benedict method, glucose tolerance test, Bilirubin Method,critinine method, inorganic phosphate,Na,k,by flame photometric method.	Nil	--
5	March 2019	1&2	12	8	5)Collection And Specimen (2L) Collection of blood Specimen and Urine,feaces and it's stored and preservation. 6) Immunological Techaqniue (6L) Radioimmunology, it's principle and application, Type of ELISA, Instrumentation of radioimmuno bioassy,	8	5)Collection And Specimen (2L) Collection of blood Specimen and Urine,feaces and it's stored and preservation. 6) Immunological Techaqniue (6L) Radioimmunology, it's principle and application, Type of ELISA, Instrumentation of radioimmuno bioassy,	Nil	--
6	March 2019	3&4	10	8	**3 Determination of vitamins in body fluid** 8L)Classification of vitamins with example, Each vitamin must be explained with respect of functions, deficiency diseases, daily requirement, and analytical method i) Retinol (determination ofretinoserumcarotene in serum using TFA), Vit D3(cholecalciferol), Vitamin E (Tocopherols, Determination of serum tocopherol by spectrophotometry by dipyridyl method), Vitamin B1 (thiamine determination by flurometry), Vitamin B2 (riboflavin,	8	3 Determination of vitamins in body fluid 8L)Classification of vitamins with example, Each vitamin must be explained with respect of functions, deficiency diseases, daily requirement, and analytical method i) Retinol (determination of retinol and serum carotene in serum using TFA), Vit D3 (cholecalciferol), Vitamin E (Tocopherols, Determination of serum tocopherol by		

Semester IV | CHA -492 | Year : 2018-2019

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Jan 2019	1&2	11	8	**1) Removal of Heavy Toxic Metal (7L)** Cr,Hg,cd,lead, arsenic, analytical method of Determination small pollutant copper recovery.	8	1) Removal of Heavy Toxic Metal (7L) Cr,Hg,cd,lead, arsenic, analytical method of Determination small pollutant copper recovery.	Nil	--
2	Jan 2019	3&4	11	8	Treatment of waste to remove heav y metal, recovery techaqniue. **2) Removal of Particulates Matter (7L)** Particulates Matter and dynamic particles separations, Particulates Matter in gas steam, filtering gravity separation, liquid scrubbing cyclones, separation.	8	Treatment of waste to remove heav y metal, recovery techaqniue. 2) Removal of Particulates Matter (7L) Particulates Matter and dynamic particles separations, Particulates Matter in gas steam, filtering gravity separation, liquid scrubbing cyclones, separation.	Nil	--
3	Feb 2019	1&2	12	8	3) **Removal of Sulphur dioxide and nitrogeneous material (10L)** Origin of So2 and hazard, analysis of So2method,controlmethod,desulphurization fuel, Indian oil,and Indian crude oil, economic of CO2 control measures,	8	3) Removal of Sulphur dioxide and nitrogeneous material (10L) Origin of So2 and hazard, analysis of So2method,controlmethod,desulphurizat ion fuel, Indian oil,and Indian crude oil, economic of CO2 control measures,	Nil	--

					Photofluorometric method), Vitamin B6 (Pyidoxine, Fluorometric determination of Xanthuric acid), Nicotinic acid and Niacin: determination by fluorometry, Ascorbic acid (vitamin –c) Volumetric method using 2,6 dichlorophenol method, colorimetric determination of leucocyte ascorbate.		spectrophotometry by dipyridyl method), Vitamin B1 (thiamine determination by flurometry), Vitamin B2 (riboflavin, Photofluorometric method), Vitamin B6 (Pyidoxine, Fluorometric determination of Xanthuric acid), Nicotinic acid and Niacin: determination by fluorometry, Ascorbic acid (vitamin –c) Volumetric method using 2,6 dichlorophenol method, colorimetric determination of leucocyte ascorbate.		

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2 One copy of the plan should be submitted at the beginning of the term after filling up columns 1 to 6.
3 The second copy must be retained by the teacher and submitted at the end of the term. Part second of the plan i. e. coumns 7 to 10 must be filled up progressively at the end of every week.

Signature of Teacher

Signature of Head of Department

Head
Department Of Chemistry
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College,Indapur,Dist.Pune

Signature of Faculty In-charge

Incharge
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College,Indapur, Dist.Pune

Signature of the Principal

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TEACHING AND EVALUATION PLAN

Name of the teacher: Prof. Mane Pranjali Suryakant	Year: 2018-2019	Semester: II
Subject: Organic Chemistry	Paper: CHO-451(Organometallic Reagent in Organic Synthesis)	Class: M.Sc II Year

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Dec 2018	3 & 4	12	8	Transition metal complexes in organic synthesis: Ligand and % mole concepts.	8	Transition metal complexes in organic synthesis: Ligand and % mole concepts.	Nil	–
2	January 2019	1& 2	12	8	C-C, C-N, C-O bond formation reactions with catalytic cycle.	10	C-C, C-N, C-O bond formation reactions with catalytic cycle.	2	Extra lecture done on sunday
3	January 2019	3 & 4	11	7	C=C bond formation reactions Shapiro, Bamford-Stevens, Peterson olefination reactions.	8	C=C bond formation reactions: Shapiro, Bamford-Stevens, Peterson olefination reactions.	1	Extra lecture done on sunday
4	Feb 2019	1 &2	12	8	Multi component reactions, Ring formation reactions, Click chemistry. Click Chemistry.	8	Multi component reactions, Ring formation reactions, Click chemistry.	Nil	–
5	Feb 2019	3 & 4	11	8	Metathesis: ROM, RCM, OCM Use of Boron and silicon reagent in organic synthesis. Other Important reactions.	8	Metathesis: ROM, RCM, OCM Use of Boron and silicon reagent in organic synthesis.	1	Extra lecture done on sunday

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Science Faculty
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TEACHING AND EVALUATION PLAN

Name of the teacher: Prof. Yogesh Vilas Zagade Year: 2018-19

Semester: I

Subject: Organic Stereochemistry and Asymmetric synthesis Paper: CHO-352 Class: M.Sc.- II

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Oct 2018	1 & 2	10	8	Confirmation of polysubstituted cyclohexane	8	Confirmation of polysubstituted cyclohexane	Nil	--
2	Oct 2018	3 & 4	12	10	Stereochemistry of fused and Bridged ring system	10	Stereochemistry of fused and Bridged ring system	Nil	--
3	Nov 2018	1 & 2	13	7	Determination of configuration by cams rule and Different model	9	Determination of configuration by cams rule and Different model	2	Extra lecture was conducted on sunday
4	Nov 2018	3&4	11	8	ASymmetric synthesis chiral pool strategy	8	ASymmetric synthesis chiral pool strategy	Nil	--
5	Dec 2018	1&2	12	8	Asymmetric organic catalysis to a Asymmetric hydrogenations	8	Asymmetric organic catalysis to a Asymmetric hydrogenations	Nil	--

Semester II | Paper: IV CHO- 453 Designing Organic Synthesis | Year : 2018-19

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Dec 2018	4	6	2	Basic Concepts in Retrosynthesis	2	Basic Concepts in Retrosynthesis	Nil	--
2	Jan 2019	1 &2	12	5	Protection , Deprotection in Organic Synthesis	5	Protection , Deprotection in Organic Synthesis	3	Extra lecture was conducted
3	Jan2019	3 & 4	12	8	Umploung of Reactivity	9	Umploung of Reactivity	1	Extra lecture was conducted
4	Feb 2019	1 & 2	12	8	Retrosynthesis of different functional group	9	Retrosynthesis of different functional group	1	lecture was conducted
5	Feb 2019	3 & 4	12	6	Linear and Convergent synthesis	6	Linear and Convergent synthesis	nil	-

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