

GOVERNMENT OF PUDUCHERRY

Arignar Anna Government Arts and Science College



(Affiliated to Pondicherry University)

NEHRU NAGAR, KARAIKAL (UT OF PUDUCHERRY) – 609 605 INTERNAL QUALITY ASSURANCE CELL (IQAC)



ACADEMIC YEAR 2015-16 and 2016-17

Department: TAMIL (BA and MA)

Programme Outcomes (POs):

On successful completion of Graduate & Post Graduate programme, the students will be able to:

PO1: To explain letters, words and grammar in Tamil Language.

PO2: To understand the history and Tamil culture.

PO3: To learn about Linguistics.

PO4: To learn about the specialty of Modern Literatures.

PO5: Learn to write Tamil Sentences without grammar mistakes.

PO6: To fully understand the grammar of Nannool & Tholkappiyam.

PO7: To develop the Creative writing.

PO8: Understand the Genre in Tamil Literature.

PO9: Will be able to Translate and Compare the World Literature.

PO10: Will be able decide the hypothesis and can-do effective evaluations.

Programme Specific Outcomes (PSOs):

- **PSO1**: Understand the basic concepts like Agam, Puram, Ilakkiya Varalaru and Ilakkana Varalaru, Linguistics etc.
- **PSO2:** Introduction on Sangam Literature, Kappiyangal and Modern Literature.
- **PSO3**: Acquaint with some basic Modern Literature Theories.
- **PSO4**: To understand the impact of Literary Theories.
- **PSO5**: Students will learn and can able to recognize the impact of linguistics in Literature.
- **PSO6**: Understand to write without grammar mistakes in Tamil and learn the usage of basic Tamil Language structure in day-to-day life.
- **PSO7**: Learners will involve in creative writings and can develop spoken skill by learning such papers like Pechchukkali & Padaippukkali.
- **PSO8:** To provide computer knowledge for gaining employment through studying Internet Tamil.
- **PSO9:** Students will learn about Folk literature and gaining knowledge about old Tamil culture.
- **PSO10**: To create awareness about Mass communication.
- **PSO11**: Learners will be able to get knowledge on Bhakthi Ilakkiyangal, Neethi Ilakkiyangal & Kappiyangal and will learn to be a better citizen to create a better nation.

Course Outcomes

Name of the Programme : பொதுத்தமிழ்

(அனைத்து இளங்கலை மற்றும் இளம் அறிவியல் பட்டங்களுக்கான அடித்தளப்படிப்பு)

	முதலாமாண்டு		
வ.எண்	பாடம்	பாட நோக்கம்	
1.	பொதுத்தமிழ் 1 (இக்கால இலக்கியம்)	இக்கால இலக்கிய வகைகளையும் வடிவங்களையும் அறிமுகம் செய்தல் கவிதை, சிறுகதை, நாடகம், உரைநடை, நாவல் ஆகியவற்றின் தோற்றம் மற்றும் வளர்ச்சி நிலைகளை எடுத்துரைத்தல் இக்கால இலக்கியப் படைப்புகள் குறித்த	
2.	பொதுத்தமிழ் 2 (காப்பியங்கள் – அற இலக்கியங்கள்)	விமர்சனப் பார்வை பெறுதல் காப்பிய இலக்கியங்களின் இலக்கியச் சுவையைப் பயிற்றுவித்தல்	
		் காப்பிய இலக்கியங்களின் வாயிலாக வாழ்வியல் விழுமியங்களை அறியச் செய்தல்	
		் அற இலக்கியங்களின் தேவையை எடுத்துரைத்தல்	
		் அற இலக்கியங்களின் வாயிலாக வாழ்வியல் அறங்களை அறியச் செய்தல்	

	இரண்டாமாண்டு		
1.	பொதுத்தமிழ் 3	் சமய இலக்கியத் தோற்றத்திற்கான	
	(சமய இலக்கியங்களும்	வரலாற்றுப் பின்புலத்தை எடுத்துரைத்தல்	
	சிற்றிலக்கியங்களும்)	் சைவ, வைணவ இலக்கியங்களை	
		அறிமுகப்படுத்துதல்	
		் சிற்றிலக்கியங்களின் தோற்றப்	
		பின்புலத்தை எடுத்துரைத்தல்	
		் சிற்றிலக்கியங்களின் இலக்கியச்	
		சிறப்பைக் கற்பித்தல்	
2.	பொதுத்தமிழ் 4 (சங்க	் சங்க இலக்கியங்களின் சிறப்புகளை	
	இலக்கியம்)	எடுத்துரைத்தல்	
		் சங்க இலக்கியங்களின் வாயிலாக	
		அகம் மற்றும் புறப் பண்பாடுகளை	
		எடுத்துரைத்தல்	

Name of the Programme : இளங்கலைத் தமிழ்

முதலாமாண்டு முதற் பருவம் பாட நோக்கம் பாடம் வ.எண் முதன்மைப் பாடம் 1. யாப்பருங்கலக்காரிகை செய்யுள் உறுப்புகள் குறித்து விளக்குதல் 0 பாவினங்கள், பா வகைகள், அவற்றுக்குரிய ஓசை முதலான இலக்கணங்களைக் கூறுதல் மரபுக் கவிதை ஆற்ற்லை எழுதும் ஊக்குவித்தல் 2. தமிழ் இலக்கிய வரலாறு இலக்கியங்களின் வரலாறுகளைக் வரிசையில் அறிமுகம் செய்தல் இலக்கியங்களின் ஆசிரியர்கள், இலக்கியங்களின் உருவம், உள்ளடக்கம் குறித்து அறிவித்தல் இலக்கிய வகைகள், வகைமைகள் குறித்து விளக்குதல்

சார்புப் பாடம்

1.	ஊடகவியல் - இதழியல் /	் ஊடகங்கள் குறித்த அறிமுகம், தெளிவு	
	விளம்பரக்கலை	பெறுதல்	
		் பணி வாய்ப்புள்ள வகையில் மாணவர்	
		திறனை மேம்படுத்துதல்	
		் இதழியல், விளம்பரம் போன்ற பிற துறை	
		சார்ந்த அறிவும் கல்வியும் பெறுதல்	
		Code ES	
2.	சுற்றுச்சூழலியல்	் சுற்றுச்சூழலியல் கல்வியின் தேவை /	
	(Environmental Studies)	அவசியம் குறித்து விழிப்புணர்வு தருதல்	
		் சுற்றுச்சூழல் மாசுகளைத் தடுக்க உதவும்	
		வழிமுறைகளை எடுத்துக்காட்டி அவற்றைப்	
		பின்பற்ற ஊக்குவித்தல்	
		் தமிழிலக்கியங்கள் உணர்த்தும் சுற்றுச்சூழல்	
		பாதுகாப்பு முயற்சிகளை உணர்த்துதல்	
	இரண்டாம் பருவம்		
	முதன்மைப் பாடம்		
1.	நன்னூல் – எழுத்ததிகாரம்	் தமிழ் இலக்கண அறிமுகம் செய்தல்	
		் இலக்கியத்திற்குத் தேவையான இலக்கண	
		அறிவு பெறுதல்	

		் நன்னூல் இலக்கணத்தை நுட்பமாகக் கற்று நடைமுறையில் பயன்படுத்துதல்
2.	இக்கால இலக்கியம் (கவிதையும் உரைநடையும்)	 மரபுக் கவிதை, புதுக்கவிதை – அறிமுகம் செய்தல் கவிதைகளின் உள்ளடக்கம் மற்றும் அவை தோன்றிய காலச்சூழல், சமூகப் பின்னணி ஆகியவற்றை விளக்குதல் புதுக்கவிதை வடிவங்களையும், உத்திகளையும் விளக்குதல் உரைநடை வளர்ச்சி வரலாறு குறித்து அறிமுகம் செய்தல்
	சார்	-ப்புப் பாடம்
1.	பேச்சுக்கலை	பேச்சுக்கலையின் சிறப்பு மற்றும் தனித்தனமை குறித்து எடுத்துரைத்தல் பேச்சுக்கலையின் தேவையை உணர்த்தி மாணவர்தம் கருத்துக்களைத் தெளிவாக எடுத்துரைக்கப் பயிற்றுவித்தல் ஊடகங்கள் மற்றும் மேடைகளில் பேசும் முறை குறித்துக் கற்பித்தல்

	இரண்டாமாண்டு மூன்றாம் பருவம்		
	முதன்மைப் பாடம்		
1.	நன்னூல் சொல்லதிகாரம்	 மொழிக் கல்வியை ஊக்குவித்தல் பிழையின்றிப் பேசவும் எழுதவும் நன்னூல் வழிக் கற்பித்தல் மொழியின் அடிப்படைகளைக் கற்றல் 	
2.	சிற்றிலக்கியமும், பக்தி இலக்கியமும்	 சிற்றிலக்கியங்கள், பக்தி இலக்கியங்கள் தோன்றிய காலப் பின்னணி குறித்து விளக்குதல் அவற்றின் பாடுபொருளை எடுத்துரைத்தல் பக்தி இலக்கியங்கள் காட்டும் தனிமனித ஒழுக்கம் குறித்து எடுத்துரைத்தல் 	
1.	ஊடகவியல் (வானொலி, தொலைக்காட்சி, திரைப்படம்)	்புப்பாடம் தகவல் தொடர்பு ஊடகங்கள் குறித்த அறிமுகம் பணிவாய்ப்புப் பெறும் வகையில் ஊடகங்களுக்கு செய்திகள், நிகழ்ச்சிகள் தயாரிக்கப் பயிற்றுவித்தல் திரைப்பட நுணுக்கங்களைக் கற்றுத்தருதல்	

நான்காம் பருவம்			
	முதன்மைப் பாடம்		
1.	தண்டியலங்காரம் (பொதுவணியியல், பொருளணியியல்)	அணிகள் குறித்து அறிமுகம் செய்தல் கவிதை இன்பம் பெற அணிகள் பயன்படும் விதம் குறித்து எடுத்துரைத்தல் அணிகளைப் பயன்படுத்தி எழுதும் ஆற்றலை ஊக்குவித்தல்	
2.	நாட்டுப்புறவியல் சார்ப்	் நாட்டார் வழக்காறு – அறிமுகம் செய்தல் நாட்டுப்புற இலக்கியங்கள் வளர்த்த கலைகள் குறித்து அறிதல் நாட்டுப்புற இலக்கியங்கள் வழி நாட்டார் வழக்காறுகளை அறிதல்	
1.	கணினியும் இணையமும்	நவீன ஊடகமாகிய கணினியைப் பயன்படுத்தும் திறனை மேம்படுத்துதல் தமிழ் மொழி வளர்ச்சியில் இணையத்தின் பங்கு குறித்து விளக்குதல் பணி வாய்ப்புப் பெறும் வகையில் திறன்மேம்பாட்டுப் பயிற்சி அளித்தல்	

	மூன்றாமாண்டு ஐந்தாம் பருவம்		
	முதன்மைப் பாடம்		
1.	நம்பியகப்பொருள்,	் தமிழுக்கே உரிய பொருளிலக்கணம் குறித்து	
	புறப்பொருள் வெண்பாமாலை	எடுத்துரைத்தல்	
		் அகம், புறம் – கூறுகளை அறிதல்	
		் பழந்தமிழ்நாட்டின் மரபுகள், பண்பாட்டுக்	
		கூறுகள் ஆகியவற்றை அறிதல்	
2.	செவ்வியல் இலக்கியங்கள்	் பழந்தமிழ் இலக்கியங்களின் செவ்வியல்	
		தன்மையைப் பல்வேறு புலவர்களின் பாடல்வழி	
		அறியச் செய்தல்	
		் சங்ககால மக்களின் வாழ்வியலை	
		விளக்குதல்	
		் சங்க காலம் காட்டும் நெறிகளைப் போற்றி,	
		அவற்றை மாணவர்தம் வாழ்க்கைக்கு	
		வழிகாட்டியாகக் கொள்ள அறிவுறுத்தல்	
3.	தமிழக வரலாறும் பண்பாடும்	் பழந்தமிழகத்தின் புவியியல் அமைப்பை	
		அறிதல்	
		் தமிழரின் வரலாறு, பண்பாடு குறித்துத்	
		தெரிந்து கொள்ளுதல்	
		் வரலாற்றுப் பின்புலம் இலக்கியங்களில்	
		ஏற்படுத்திய தாக்கங்கள் குறித்து விளக்குதல்	

4.	மொழியியல் ஓர் அறிமுகம்	் மொழியிலுள்ள அறிவியல்சார் கூறுகளை
		விளக்குதல்
		் பேச்சுத் தமிழின் முக்கியத்துவம் குறித்து
		எடுத்துரைத்தல்
		் மொழியியல் கோட்பாடுகள் மொழி
		வளர்ச்சிக்கு உதவும் தன்மையை விளக்குதல்
5.	படைப்பிலக்கியமும்	் திறனாய்வுக் கொள்கைகளை அறிமுகம்
	திறனாய்வும்	செய்தல்
		் இலக்கியங்களில் திறனாய்வுப் பார்வையை
		மேம்படுத்துதல்
		் இலக்கிய மதிப்பீட்டுத் திறனை
		ஊக்குவித்தல்
	ஆற	றாம் பருவம்
	முதன்	ளமைப் பாடம்
1.	செம்மொழியியல்	் செம்மொழி என்பதற்கான விளக்கம் தருதல்
		் மொழியின் இலக்கியப் பழமை, இலக்கிய
		வளம் ஆகியவை குறித்து விளக்குதல்
		் தமிழ்மொழியின் தனித்துவத்தை விளக்குதல்
2.	புதுச்சேரி மாநில வரலாறும்	் புதுவை மாநிலத்தின் புவியியல் அமைப்பு
	பண்பாடும்	குறித்து விளக்குதல்

		் புதுவை மாநில வரலாறு, பண்பாடு குறித்து அறிதல்
		் இலக்கியங்களில் வரலாற்றுப் பின்புலம் ஏற்படுத்திய தாக்கங்களை விளக்குதல்
3.	காப்பியங்கள்	் காப்பிய மரபை அறிதல்
		் தமிழில் தோன்றியுள்ள
		பெருங்காப்பியங்கள், சிறுகாப்பியங்கள் வழி
		வாழ்வியல் விழுமியங்களை உணரச் செய்தல்
		் காப்பிய மாந்தர்களை மதிப்பீடு செய்தல்
4.	மொழிபெயர்ப்பியல்	் மொழிபெயர்ப்பின் தேவை, அவசியம்
		குறித்து விளக்குதல்
		் தமிழ்மொழிபெயர்ப்பு நூல்களின் வரலாறு,
		வளர்ச்சி குறித்து அறிதல்
		் கடிதங்கள், கட்டுரைகள் போன்றவற்றை
		மொழிபெயர்ப்பு செய்யப் பயிற்றுவித்தல்
5.	படைப்பாளர் (பாரதியார்)	் பாரதியாரின் இலக்கியப் பணிகள் குறித்து
		விளக்குதல்
		் குறிப்பிட்ட சில படைப்புகளை
		முழுமையாகக் கற்கத் தூண்டுதல்
		் பாரதியாரின் படைப்புகள் வழி அவரது
		பன்முகத் திறனை மாணவர்களுக்கு விளக்குதல்

MA TAML

Name of the Programme : முதுகலைத் தமிழ்

	முதலாண்டு முதற் பருவம்		
தாள்	பாடம்	பாட நோக்கம்	
1.	இக்கால இலக்கியம் (மரபுக் கவிதை, புதுக்கவிதை)	 புதுக்கவிதையின் வடிவங்கள் குறித்த அறிமுகம் மரபுக்கவிதை, புதுக்கவிதை ஆகியவற்றைத் திறனாய்வு நோக்கில் அணுகப் பயிற்றுவித்தல் 	
2.	பக்தி இலக்கியம்	 சமய இலக்கியங்கள் தோன்றிய காலச் சூழல் குறித்த தெளிவு பெறுதல் சைவ, வைணவ, சமண, பௌத்த, கிறித்துவ, இஸ்லாமிய இலக்கியங்களை ஆழக் கற்றல் 	
3.	சிற்றிலக்கியம்	 சிற்றிலக்கியங்களின் வகைகள் குறித்த அறிவு பெறுதல் சிற்றிலக்கியங்களின் இலக்கியச் சிறப்புகளைக் கற்றல் 	
4.	தொல்காப்பியம் எழுத்ததிகாரம்	 தமிழரின் தொன்மையைத் தொல்காப்பியத்தின் வழி உணர்த்துதல் தனிமொழி, புணர்மொழி எழுத்துக்களைப் பற்றி அறிதல் 	
5.	மக்கள் தொடர்பியல்	் தகவல் தொடர்பு ஊடகங்கள் குறித்த விரிவான செய்திகள் தருதல்	

		் பணி வாய்ப்புப் பெறும் வகையில்
		ஊடகங்களுக்குச் செய்திகள், நிகழ்ச்சிகள் தயாரிக்கப்
		பயிற்றுவித்தல்
6.	இக்கால இலக்கியம்	் சிறுகதை, நாவல், சுயசரிதை நூல்கள்,
	(சிறுகதை, நாவல்,	உரைநடை நூல்கள், நாடக நூல்கள் – அறிமுகம்
	நாடகம், சுயசரிதை	் நூல்களைத் திறனாய்வு செய்து, இலக்கியக்
	நூல்கள், உரைநடை	கோட்பாடுகளையும் கொள்கைகளையும்
	நூல்கள்)	உய்த்துணர்தல்
7.	அற இலக்கியம்	 நீதி இலக்கியத்தின் இயல்புகள் குறித்தும் தமிழ் இலக்கியங்களில் அறக்கருத்துகள் குறித்தும் விளக்குதல்
		் திருக்குறள், நாலடியார், நன்னெறி, நல்வழி, நீதிநெறி விளக்கம் போன்ற நூல்களின் சில பகுதிகளைப் பயிற்றுவித்தல்
8.	பெண்ணியம்	் பெண்ணியம் தோற்றம், வளர்ச்சி குறித்து விளக்குதல்
		் பெண்ணிய வகைகளை எடுத்துக்காட்டி, தற்கால இலக்கியங்களைப் பெண்ணியப் பார்வையில் மதிப்பிடுதல்
9.	தொல்காப்பியம் சொல்லதிகாரம்	் மொழியின் வாக்கிய அமைப்பைச் சொல்லதிகாரம் வழி உணரச் செய்தல்
		் மொழிக்கூறுகளை விளக்குதல்

10.	இலக்கியக் கொள்கையும்	் சங்ககால இலக்கியக் கொள்கை, இடைக்கால
	திறனாய்வும்	இலக்கியக் கொள்கை, அரிஸ்டாட்டிலின் கவிதையியல்
		ஆகியவற்றை விளக்குதல்
		் சமூக இயக்கங்களும் திறனாய்வுக்
		கொள்கைகளும் குறித்து விரிவாக எடுத்துக்கூறுதல்
	இரண்ட	ாமாண்டு மூன்றாம் பருவம்
11.	காப்பிய இலக்கியம் - I	் காப்பிய இலக்கணம் பொருந்தும் தன்மையை
		உய்த்துணரச் செய்தல்
		் பெருங்காப்பியங்கள் வழி வாழ்வியல்
		விழுமியங்களை உணரச் செய்தல்
12.	சங்க இலக்கியம் - அகம்	் பழந்தமிழ் இலக்கியங்கள் காட்டும் வாழ்வியல்
		நெறிகளை உணரச் செய்தல்
		் பழந்தமிழ் இலக்கியங்களின் (பாட்டும்
		தொகையும்) செவ்வியல் தன்மையை அறியச் செய்தல்
13.	தொல்காப்பியம்	் அகப்புறத் திணைகளை விளக்குதல்
	பொருளதிகாரம் – I (முதல்	் அகப்பாடல்களுக்குப் பொருள் காணும்
	ஐந்து இயல்கள்)	முறையைப் பொருளியல் வழி எடுத்துக்காட்டல்
14.	நாட்டுப்புறவியல்	் நாட்டுப்புற இலக்கிய வகைகள், நாட்டுப்புறக்
		கலைகள், நாட்டார் வழக்காறுகள் குறித்து விரிவாக
		அறியச் செய்தல்
		் நாட்டுப்புறவியல் ஆய்வியல் கோட்பாடுகளை
		உணரச் செய்து, களஆய்வுக்கு வழிகாட்டுதல்

15.	இலக்கண வரலாறு	 எழுத்து, சொல், பொருள், யாப்பு, அணி இலக்கணங்களின் வகைகள், வரலாறுகள் குறித்து விவரித்தல் பல்வேறு இலக்கண நூல்கள் கூறும் செய்திகளை
		ஒப்பீட்டு நோக்கில் உணர்தல் நான்காம் பருவம்
16.	காப்பிய இலக்கியம் - II	் காப்பிய நெறிகளை உணர்த்துதல் ் வில்லிபாரதம், நளவெண்பா, திருவிளையாடற்புராணம், சீறாப்புராணம், இயேசுகாவியம் போன்ற நூல்களில் சில பகுதிகளை அறிமுகம் செய்தல்
17.	சங்க இலக்கியம் – புறம்	 வீரநிலைக்காலம் அறிமுகம் புறப்பாடல்கள் வழி தமிழரின் வீரமும் மாண்பும் குறித்து உணரச் செய்தல்
18.	தொல்காப்பியம் பொருளதிகாரம் – II (பின் நான்கு இயல்கள்)	 அக, புற ஒழுக்கத்திலுள்ள மெய்ப்பாடுகள் யாவை என அறிதல் மரபியல் வழி உயிரினங்களின் பாகுபாடுகள் குறித்து அறியச் செய்தல்
19.	இலக்கிய ஒப்பாய்வியல்	 ஒப்பிலக்கியத்தின் தேவை குறித்தும் ஒப்பிலக்கியக் கொள்கைகள் குறித்தும் விளக்குதல் ஒப்பிலக்கியம் பிற துறைகளோடு கொண்டுள்ள தொடர்புகளை எடுத்துரைத்தல்

20.	சைவ சித்தாந்தம்	0	அறுவகைச் சமயங்கள் குறித்த அறிமுகம்
		0	முப்பொருள் இயல்பு குறித்து விளக்குதல்

Department: ECONOMICS (BA)

Programme Outcomes (POs):

The department of Economics is offering B.A. and M.A. Economics courses.

- **PO1**: The department is working with a vision of developing critical thinking about economic conditions of the country as well as the entire world among its students so that they are equipped with the techniques to find solutions for the day-to-day economic activities in social and ethical manners.
- **PO2:** Economics inculcates learners to build up a professional career as Economists, Academicians, Financial advisors, Bankers, Economic planners, Researchers, Entrepreneurs and Policymakers after pursuing their higher studies in this subject.

Programme Specific Outcomes (PSOs):

- **PSO 1:** Understand the basic concepts like National Income, Poverty, Employment, International trade, Fiscal and Monetary policies
- **PSO 2:** To analyse the economic importance of various sectors like agriculture, industry and service sector
- **PSO 3:** Acquaint with some basic statistical methods to be applied in Economics.
- **PSO 4:** Acquaint with some basic mathematical methods to be applied in Economics.
- **PSO 5:** To understand the impact of agriculture and foreign trade on economic development
- **PSO 6:** Acquaint with some basic concept of Environmental Economics along with the solution of the environmental problems
- **PSO 7:** Acquaint with some basic theoretical concept of public finance
- **PSO 8:** Learn the development issues of Indian Economy
- **PSO 9:** Learn the basic concept of monetary analysis and financial marketing in Indian financial markets.
- **PSO 10:** To provide life skills required for gaining employment by using domain knowledge such as Economics.
- Phone: 04368-230431, 231743, Fax: 04368-231743, Email: aagac.kkl@gmail.com

Course Outcomes

BA ECONOMICS

ECON 111	Towards Understanding Economics	CO1	Explain what Economics is and explain why it is important
Semester-1		CO2	Explain how Economists use economic concepts in policy making
		CO3	To make students understand the demand & supply concepts
		CO4	Students will be able to understand the links between household behavior and the economic models of demand
ECON 112	Statistical Methods-I	CO1	Understanding the data and methods of data collection
Semester-1		CO2	Understand how to compute average and standard deviation
		CO3	To know the relationship between economic variables
		CO4	Students will be able to understand basic theoretical principles of statistics
ECON SO2	Population Studies	CO1	To make the students aware of the importance of population in economic development
Semester-1		CO2	Explain various theories that explain the growth of population in a country
		CO3	Enlighten the students on the quantitative and qualitative aspects of population
		CO4	To understand the characteristics of the population through various population techniques
ECON 121	Micro Economics-I	CO1	Understand the fundamentals of Micro Economics
Semester-II		CO2	Get an introduction to supply and the demand and the basic forces that determine equilibrium in a market economy
		CO3	To understand introductory micro economic theory in a local, regional, national & international scenario
		CO4	To understand basic micro economic problems related to the operation of real economy
ECON 122	Mathematics for Economists-I	CO1	The aim of the course is to introduce fundamental concept of sequence, series of real numbers and their convergence, continuity, differentiability of real valued functions
Semester-II		CO2	To learn the basic ideas of abstract algebra and techniques with proof and its use in economics
		CO3	Evaluate determinants and use them to discriminate between invertible and non-invertible matrices
		CO4	Use the basic concepts of vector and matrix algebra including lineardependence/independence, basis and dimension of a subspace, rank and nullity for analysis of matrices and systems of linear equations
ECON SO3	Environmental Economics	CO1	Understand the interrelationships between environment & economy
Semester-II		CO2	Students get to know application of microeconomic principles to the environmental problems
		CO3	To understand the environmental resource problems

		CO4	Get exposed to the problem of valuation of environmental resources
			To understand basic micro economic problems related to the operation of real
ECON 231	Micro Economics-II	CO1	economy
Semester-III		CO2	To understand introductory micro economic theory in a local, regional, national &
Semester-m		CO2	international scenario
		CO3	It will also help in understanding the efficiency and equity implications of market
			interference including government policy
			It will result in understanding the micro and macro theories of distribution, welfare
		CO4	economics, general equilibrium in closed and open system and analysis of
			economic behavior under uncertainty
ECON 232	Macro Economics-I	CO1	To make students aware of the basic theoretical framework underlying the field of macroeconomics
	-		It helps students to study the aggregates and to provide overall idea about national
Semester-III		CO2	economic policies and its implications
		CO3	Students get to know about the determination of equilibrium income
		CO4	Understand the money supply, money demand and interest rate
ECON 233	Statistical Methods-II	CO1	To understand the uncertain occurrence situations with logical manner
20011 233	Statistical Methods-11		
Semester-III		CO2	Recognize common probability distributions for discrete and continuous variables
			To learn variety of probability and non-probability sampling methods for selecting
		CO3	a sample from a population
		CO4	Fostering understanding through real world statistical applications
ECON 234	Economics of Insurance	CO1	To understand the concepts and principles of insurance
Semester-III		CO2	To know the various types of insurance and insurance business in India.
		CO3	to become aware of insurance legislation in India
		CO4	Students will be able to propose regulatory and market solutions that are based on
		CO4	economic theory (as well as practical and legal considerations).
ECON 241	Money and Banking	CO1	Students learn about the concepts of money and banking
Semester-IV		CO2	Get exposed to the theories of demand for and supply of money
	1 1	CO3	Learn about functions of central bank and methods of credit control
		CO4	Study about conduct of monetary policy in India monetary policy
ECON 242	Macro Economics-II	CO1	Understand various theories of consumption
Samastan IV		CO2	It enables students to understand determination of equilibrium income and interest
Semester-IV		CO2	rates
		CO3	To derive aggregate demand and supply curves and get expose to wage models
		CO4	Understanding the concept of inflation and Learn about open economy models
ECON 243	Mathematics for Economists-II	CO1	To compute and analyse limits, derivatives and integrals functions
Semester-IV			To understand the type of variable and usefulness in the development of the
Semester-IV		CO2	To understand the type of variable and decidiness in the development of the
		CO2	function
		CO2	
		CO3	function To recognize the appropriate tools for calculus to solve applied problems
			function To recognize the appropriate tools for calculus to solve applied problems
ECON 244	Economics of Insurance-	CO3	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through
ECON 244	Economics of Insurance-	CO3	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance.
		CO3 CO4 CO1	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency
ECON 244 Semester-IV		CO3	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic
		CO3 CO4 CO1	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency.
		CO3 CO4 CO1	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory
		CO3 CO4 CO1	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen
		CO3 CO4 CO1	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on
		CO3 CO4 CO1 CO2 CO3	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations).
		CO3 CO4 CO1 CO2 CO3	function To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations). The student will be acquainted with economic concepts and models of international
Semester-IV ECON 351	Practice	CO3 CO4 CO1 CO2 CO3 CO4 CO1	To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations). The student will be acquainted with economic concepts and models of international trade
Semester-IV	Practice	CO3 CO4 CO1 CO2 CO3 CO4 CO1 CO2	To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations). The student will be acquainted with economic concepts and models of international trade Study about the emergence of international trade
Semester-IV ECON 351	Practice	CO3 CO4 CO1 CO2 CO3 CO4 CO1 CO2 CO3	To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations). The student will be acquainted with economic concepts and models of international trade Study about the emergence of international trade Understand various international trade theories
Semester-IV ECON 351 Semester-V	Practice International Economics-I	CO3 CO4 CO1 CO2 CO3 CO4 CO1 CO2 CO3 CO4	To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations). The student will be acquainted with economic concepts and models of international trade Study about the emergence of international trade Understand various international trade theories Learn about gains from international trade and terms of trade
Semester-IV ECON 351	Practice	CO3 CO4 CO1 CO2 CO3 CO4 CO1 CO2 CO3	To recognize the appropriate tools for calculus to solve applied problems The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study Students will be able to describe the economic characteristics of risk mitigation and insurance. Students will develop an understanding of risk management as well as of agency theory and market failure due to information asymmetry, as well as the economic rationale for regulatory intervention to improve market efficiency. Student will also examine case studies in the insurance market which regulatory failure has arisen Students will be able to propose regulatory and market solutions that are based on economic theory (as well as practical and legal considerations). The student will be acquainted with economic concepts and models of international trade Study about the emergence of international trade Understand various international trade theories

		CO4	It will help in understanding analyzing the impact of public policy on the allocation of resources
ECON 353	Basic Econometrics	CO1	Apply simple linear regression model to real life examples
Semester-V		CO2	Understand multiple regression models with applications
		CO3	To learn the development of null & alternative hypothesis & types of errors,
		CO4	To understand the concepts of multicollinearity, autocorrelation and heteroscedasticity
ECON 354	Indian Economy-I	CO1	Develop ideas of the basic characteristics of Indian economy, its potential on natural resources
Semester-V		CO2	Understand the importance , caused and impact of population growth and its distribution, translate and relate them with economic development
		CO3	It will result in comprehensive understanding of Indian economy
		CO4	Student will be able to understand govt. policies and sectoral programmes
ECON 355	Entrepreneurial Development	CO1	The students develop and can systematically apply an entrepreneurial way of thinking that will allow them to identify and create business opportunities that may be commercialized successfully.
Semester-V		CO2	Have the ability to discern distinct entrepreneurial traits
		CO3	Know the parameters to assess opportunities and constraints for new business ideas
		CO4	Understand the systematic process to select and screen a business idea
ECON 356	Gender Studies	CO1	Analyze complex interconnections of gender, race, class, sexuality, ability, and other categories of power and identity in various spheres of human endeavor ranging from the sociopolitical to the aesthetic
Semester-V		CO2	Demonstrate an openness to learning about people, cultures, and societies different from themselves and their own worlds
		CO3	Situate themselves among various strands of feminist thought and envision themselves as participants in a multidisciplinary dialogue with activists, artists, and academics regarding social, political, and cultural issues of gender and sexuality

		CO4	Apply central concepts and theories from Gender Studies to their own life experiences and the world around them
ECON S05	Development Economics	CO1	Understand meaning of economic development and it s measurement
Semester-V		CO2	To explain economic growth theories, international trade development theories and related economic development theories
		CO3	Student will be able to understand the landscape of Indian economic structure
		CO4	To get exposed to Indian social structure and development
ECON 361	International Economics-II	CO1	The course is helpful to develop a systematic exposition of models that try to explain composition, direction and consequences of international trade
Semester-VI		CO2	The student will be acquainted with economic concepts and models of international trade
		CO3	Understand about international trade blocks and their importance
		CO4	Get exposed to economic environment of international trade
ECON 362	Public Finance-II	CO1	Get exposed to sources of public revenue
Semester-VI		CO2	Understand trend and pattern the of public expenditure
		CO3	Get to know about centre and state financial relationships
		CO4	Understand and analyse the distribution of income in the economy
ECON 363	Indian Economy-II	CO1	It helps in developing understanding of the students relate to different sectors of Indian Economy
Semester-VI		CO2	After studying the structural aspects of Indian economy students will be able to understand how planning and infrastructure support can develop an economy
		CO3	To give in depth knowledge of banking and finance to the students
		CO4	Student will be able to understand govt. policies and sectoral programmes
ECON 364	History of Economic Thought	CO1	to learn and discuss, at an advanced undergraduate level, how the economic thought has evolved over time

	1		
Semester-VI		CO2	Introducing students to the critical comparison of the contributions of the main schools of economics: the classical, the marginalist revolution and its application to the theories of general and partial equilibrium, the current macroeconomic debate between the neo-classical and the Keynesian school
		CO3	to understand specific contributions on themes of economic analysis and concerning figures of economists still important in the international economic debate at the international level
		CO4	Through selected readings of their texts and linking the different positions of economic thought to philosophical foundations and political implications.
ECON 365	Entrepreneurial Development - Practice	CO1	Develop idea generation, creative and innovative skills
Semester-VI		CO2	Learn how to start an enterprise and design business plans those are suitable for funding by considering all dimensions of business.
		CO3	Understand entrepreneurial process by way of studying different case studies and find exceptions to the process model of entrepreneurship.
		CO4	Student will also examine case studies in the field of entrepreneurship development
ECON S08	Indian Financial Institutions and Markets	CO1	To understand the conceptual framework of financial markets & institutions of India
Semester-VI		CO2	Students will be able to understand the nature of financial instruments and their usage
		CO3	To give in depth knowledge of banking and finance to the students
		CO4	Students get to know about money and capital market functioning in India
ECON S07	Society and Economy	CO1	This course attempts to facilitate the students to relate socio-religious institutions and the economy
Semester-VI		CO2	To understand how does social institutions determine people access to productive resources
		CO3	Students get to know human society, evolution of culture and how it plays a role in socio economic structures

CO4	Understand the functions of village, caste, family, kinship in determining access to resources
-----	--

M.A. Economics Program Specific Outcomes

- PSO 1: The behavioural patterns of different economic agents, advance theoretical issues and their applications.
- PSO 2: Understand the basic concept of microeconomics.
- PSO 3: Acquaint with some basic statistical methods to be applied in economics.
- PSO 4: Acquaint with some basic mathematical methods to be applied in economics.
- PSO 5: Acquaint with some basic theoretical concept of public finance.
- PSO 6: Acquaint with the measurement of development with the help of theories along with the conceptual issues of poverty and inequalities with Indian perspectives.
- PSO 7: Delineate the fiscal policies designed for developed and developing economics.
- PSO 8: Facilitate the historical developments in the economic thoughts propounded by different schools.
- PSO 9: Learn the basic concept of monetary analysis and financial marketing in Indian financial markets.
- PSO 10: Learn the development issues of Indian economy.
- PSO 11: Acquaint with basic concepts of Research Methodology
- PSO 12: Learn the real and monetary sides of International Economics.

MA ECONOMICS

ECON	Micro Economic Analysis -1	CO1	Get introduced for learning about consumer behavior and analyzing consumer decisions
Semester-I		CO2	To understand introductory micro economic theory in a local, regional, national & international scenario
		CO3	Explain the fundamental techniques to think about a number of policy questions
		CO4	It will also help in understanding the efficiency and equity implications of market interference including government policy
ECON	Macro Economics - 1	CO1	To make students aware of the basic theoretical framework underlying the field of macroeconomics
		CO2	It enables students to understand determination of equilibrium income and interest rates
		CO3	To derive aggregate demand and supply curves and get expose to wage models
		CO4	Understanding the concept of inflation and Learn about open economy models
ECON	Mathematical Economics	CO1	The student is exposed to economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study
		CO2	Understand abstract ideas and rigorous methods in mathematical analysis to solve practical problems
		CO3	Know the chain rule and use it to find derivative of composite functions and obtain expression for higher order derivatives of a function using the rule of differentiation
		CO4	Evaluate determinants and use them to discriminate between invertible and non-invertible matrices
ECON	Econometric Theory	CO1	Understand multiple regression models with applications
		CO2	To learn the development of null & alternative hypothesis & types of errors,
		CO3	To understand the concepts of multicollinearity, autocorrelation and heteroscedasticity
		CO4	To learn how to develop regression model and apply for the specific perspective data in appropriate manner
ECON	Economics of Growth & Development	CO1	To explain economic growth theories, international trade development theories and related economic development theories
		CO2	Learn hardcore economic prescriptions to development, concerns hitherto relegated to background like education, health, sanitation and infrastructural development, have found a place of pride in explaining the preference of various economies
		CO3	Student will be able to understand the landscape of Indian economic structure
		CO4	Understand meaning of economic development and it s measurement
ECON	Micro Economic Analysis -II	CO1	To understand basic micro economic problems related to the operation of real economy
		CO2	It will help students in understanding the behavior of individuals and small organizations in making decisions on the allocation of limited resources
		CO3	It will result in understanding the micro and macro theories of distribution, welfare economics, general equilibrium in closed and open system and analysis of economic behavior under uncertainty
		CO4	To understand the efficiency and equity implications of market interference including government policy
ECON	Macro Economic Analysis -II	CO1	To make students aware of the basic theoretical framework underlying the field of macroeconomics
Semester-II		CO2	It helps students to study the aggregates and to provide overall idea about national economic policies and its implications
		CO3	Apply the principle of Macroeconomics in explaining the behaviour of Macroeconomic variables at national as well as global level.
		CO4	Associate the current economic phenomenon with existing theory and put their views on contemporary economic issues.

ECON	Statistical Methods in Economics	CO1	Understand the basic principles underlying survey designs and estimation
		CO2	To train students with essential tools for statistical analysis at post graduate level
		CO3	To present the general theory of statistical distributions as well as the standard distribution found in statistical practice
		CO4	Fostering understanding though real world statistical applications
	Applied Econometrics	CO1	To learn and develop scientific view to understand the time series data and its analysis
		CO2	To learn stationary and non-stationary time series models
		CO3	Apply auto regressive, moving average, ARMA, ARIMA models, Box Jenkins approach to forecast time series data empirically
		CO4	to develop an ability to analyse and apply some basic stochastic processes for solving real life situations
	Public Economics	CO1	It will help in understanding analyzing the impact of public policy on the allocation of resources
		CO2	Understand and analyse the distribution of income in the economy Analyse in uctan about public expenditures, taxation, outgetary procedures,
		CO3	
		CO4	Get to know about centre and state financial relationships
ECON	International Trade & Finance	CO1	The course is helpful to develop a systematic exposition of models that try to explain composition, direction and consequences of international trade
Semester-III		CO2	The student will be acquainted with economic concepts and models of international trade
		CO3	Understand about international trade blocks and their importance
		CO4	Get exposed to economic environment of international trade
ECON	Contributions by Noble Laureates - I	CO1	Students get to know about the greatest contributions made by renowned Economists in the field of economics
		CO2	Understand the contributions made by Hicks, Arrow, Amartya Sen, Kantorovich Students get better understanding about different school of thoughts with regard to
		CO3	Students get better understanding about différent school of thoughts with regard to
			Students get exposed to various tools and mechanisms used in economics proposed
		CO4	by Economists
ECON	Computer Applications in Economic	CO1	The course describes an alternative approach to teaching content by using computer applications that emphasize the empirical testing or applications of the
	Analysis		theory
	-	CO2	Get exposed to various statistical packages viz., E-views and SPSS
	-	CO3	Understand stochastic process with softwares
		CO4	Get exposed to time series and forecasting models viz, ARMA, , Granger causality , fixed effects and random effects models etc
	Research Methodology	CO1	Develop understanding on various kinds of research, objectives of doing research research process, research designs and sampling
		CO2	Students will have basic knowledge on qualitative research techniques
		CO3	Students will have adequate knowledge on measurement & scaling techniques as well as the quantitative data analysis
		CO4	Students will be able basic awareness of data analysis-and hypothesis testing procedures
	Indian Economy : Issues & Policies – I	CO1	Develop ideas of the basic characteristics of Indian economy, its potential on natural resources
		CO2	Understand the importance, caused and impact of population growth and its distribution, translate and relate them with economic development
		CO3	It will result in comprehensive understanding of Indian economy
		CO4	Student will be able to understand govt. policies and sectoral programmes
ECON	Indian Economy : Issues & Policies – II	CO1	It helps in developing understanding of the students relate to different sectors of Indian Economy
Semester-IV		CO2	After studying the structural aspects of Indian economy students will be able to understand how planning and infrastructure support can develop an economy
		CO3	To give in depth knowledge of banking and finance to the students
		CO4	Student will be able to understand govt. policies and sectoral programmes
ECON	Financial Economics	CO1	understand the role of asymmetric information in financial markets
	Financial Economics	CO2	Identify the main assumptions driving the results of a model

		CO3	Understand why and how financial frictions lead to inefficient prices
		CO4	Comprehend how trading in derivative markets affect the price of the underlying asset
ECON	Contributions by Noble Laureates - II	CO1	The aim of this course is to make Students understand about the greatest contributions made by renowned Economists in the field of economics
		CO2	It helps students to understand the contributions made by Simon Kuznets, Schultz, Lewis, Solow, Fogel in the field of institutional change, development and growth
		CO3	It helps students to think strategically and make decisions to optimize the outcome
		CO4	Studying this course will help students to get exposed to recent developments in economic theory
	Project Work	CO1	The aim of the course is to make student to take up a mini research topic and to work on it to carry out research activities for further studies
		CO2	It is a well planned, organized and goal oriented work. hence students understand application of economic concepts in real life situations
		CO3	Students get exposure with regard to sampling and collection of data and processing of data
		CO4	Students able apply statistical tools for analyzing economic phenomena with the help of the data and softwares and report writing

Department: COMMERCE (B.COM and M.COM)

Programme Outcomes (POs):

- **PO1:** Learners' who take up commerce for getting a degree aspire to become managers, accountants, banking sectors, auditors, company secretary, teachers, stock dealers, tax consultants, government employee, etc.
- **PO2**: The curriculum offered encourages learners to get through many professional examinations like CA, CS, ICWAI, CAT, etc.
- **PO3:** By learning commerce, students have a clear understanding about the role of business in the development of a society. Knowledge on ethical practices and value system in business are imparted to learners' and they are encouraged to take up their responsibilities with greater enthusiasm.
- **PO4:** Learners acquire updated knowledge about the various accounting skills of maintenance of accounts and also about business entrepreneurship, business administration and latest business trends.
- **PO5:** The course enables learners to gain specialized knowledge in the areas of Human Resource Management, Marketing Management, Financial Management and International Business Management.
- **PO5:** Learners' not only gains knowledge about trade and commerce but also are imparted with knowledge on computers, mathematics and statistics which supplements and also enriches their learning output.
- **PO6:** Learners enhance their communicative skills in business which is greatly needed for a successful profession. The programme enables learners' in improvising their competency needed to make themselves eligible and employable in the job market.

Programme Specific Outcomes (PSOs):

- **PSO 1:** Students will be able to demonstrate progressive learning of various tax issues and tax forms related to individuals. Students will be able to demonstrate knowledge in setting up a computerized set of accounting books.
- **PSO 2:** Students will demonstrate progressive affective domain development of values, the role of accounting in society and business.
- **PSO 3:** Students will learn relevant financial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
- **PSO 4:** Students will learn relevant managerial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
- **PSO 5**: Learners will gain thorough systematic and subject skills within various disciplines of commerce, business, accounting, economics, finance, auditing and marketing.
- **PSO 6:** Learners will be able to recognize features and roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.
- **PSO7:** Learners will be able to prove proficiency with the ability to engage in competitive exams like CA, CS, ICWA and the other.
- **PSO 8:** Learners will acquire the skills like effective communication, decision making, problem solving in day-to-day business affairs.
- **PSO 9:** Learners will involve in various co-curricular activities to demonstrate relevancy of foundational and theoretical knowledge of their academic major and to gain practical exposure.
- **PSO 10:** Learners can also acquire practical skills to work as tax consultant, audit assistant and other financial supporting services.
- **PSO 11:** Learners will be able to do higher education and advance research in the field of commerce and finance.

Course Outcomes

	_		B.Com General
BCGN 111	Financial Accounting	CO 1	Introduction to Accounting Principles, Concepts and Conventions, Accounting Standards issued by ASB.
Semeste-I		CO 2	Acquire conceptual knowledge of basics of accounting and preparation of financial accounts of Sole Trader.
		CO 3	Familiarize with Self-balancing Ledgers, Rectification of Errors.
		CO 4	Acquire accounting knowledge of Non-Trading Concerns.
		CO 5	Acquires knowledge of books of recording under Hire Purchase & Installment Methods.
		CO 6	Acquires knowledge about the preparation of Partnership Accounts.
BCGN 112	Business Law	CO 1	Learn the difference between valid void and voidable contract.
Semeste-I		CO 2	Memorize difference between contract of guarantee and indemnity
		CO 3	Analyze the rights and duties of Pawnor and Pawnee under contract of bailment
		CO 4	Learn how to pursue the consumer rights under Consumer Protection Act 1982.
		CO 5	Acquire knowledge about Negotiable Instruments Act 1881.
		CO 6	Acquire knowledge about Sale of Goods Act 1930 – Formation of contract sale and transfer of property in goods.
BCGN 121	Business Management	CO 1	To provide conceptual understanding of Management concepts, principles and functions.
Semester-II		CO 2	Ability to execute managerial tasks of planning, organizing and controlling.
		CO 3	Use effective communication skills to promote respect and relationship.
		CO 4	To familiarize with communication motivation and leadership towards directing
		CO 5	Articulate ideas persuasively and logically and collaborate with others toward a common goal
		CO 6	Understand the nature and dynamics of social behavior relating to organizational performance in order to develop strategies to become effective in organizations.
BCGN 122	Company Law	CO 1	Know about the concept of company and shares
Semester-II		CO 2	Know about the company law in the India
		CO 3	Understand the use of the memorandum of association and article of association in
		CO 1 CO 2	a company, they also learn from this course.
			Use of prospectus in a company.
			Understand the relationship between company and debenture holders.
BCGN 231	Goods and Service Tax	CO 1	Understanding the concept of GST & GST Council
Semester-III		CO 2	Getting information about the provisions of GST Act - CGST, SGST & IGST Acts
		CO 3	Understanding about the Levy & Collection of Tax, Registration, Tax Invoice and Debt Credit Notes
		CO 4	Awareness of Administration of GST Accounts and Records, Returns, Payment of Tax and Refunds
		CO 5	Understanding about the demand and recovery, Liability to pay Tax, Advance Ruling, Appeals and Revisions, Offences and Penalties
BCGN 232	Business Statistics	CO 1	Acquire conceptual knowledge of Statistics as a Subject, Descriptive Statistics, Types od Data, Summation Operation and Ruleof Sigma Operations.
Semester-III		CO 2	Able to independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient, indexes)
		CO 3	Able to interpret the meaning of the calculated statistical indicators
		CO 4	Able to choose a statistical method for solving practical problems
		CO 5	Able to explain probability theory and probability distributions in relation to general statistical analysis.
		CO 6	Understand and appreciate the need to solve a variety of business related problems using a systematic approach involving accepted statistical techniques.
BCGN 233	Management Accounting – I	CO 1	Acquire conceptual knowledge of Management Accounting, its relationship with Cost Accounting and Financial Accounting and various tools & Techniques of Management Accounting.
Semester-III		CO 2	Enlighten the students on Financial Statement Analysis with the emphasis on the preparation of Fund Flow and Cash Flow Statements.
		CO 3	To equip the students with the ability to analysis, interpret and use Accounting information in Managerial Decision – making.

		CO 4	Analyze and interpret fFinancial Statements from the point of view of Management
		CO 4	and Outsiders.
		CO 5	To critically analyze and provide recommendations to improve the operations of organizations through the application of Management Accounting Techniques.
		CO 6	Develop the ability to collect, analyze and communicate quantitative and non- quantitative information to assist management in making more effective planning and control decisions.
BCGN 234	Communicative Skills	CO 1	To make effective and impressive communication.
Semester-III		CO 2	To make communication in ethical manner.
		CO 3	Capable to make persuasive digital communication.
		CO 4	Capable to make abstract & summaries of proposals.
		CO 5	Better presentation and communication using proper body language.
BCGN 241	Management Accounting – II	CO 1	Apply management Accounting and its objectives in facilitating decision-making.
Semester-IV		CO 2	A apply and analyze different types of activity-based management tools through the preparation of Estimates.
		CO 3	Analyze Cost- Volume-Profit Techniques to determine optimal Managerial decisions.
		CO 4	Understand Cost Variance Analysis and use of Standard costs in Flexible Budgeting.
		CO 5	Imparts highly relevant skills in areas such as budgeting and decision-making which will enable to identify the most effective profitable opportunities and to contribute significantly to better management within the organization.
BCGN 242	Cost Accounting	CO 1	Define the various components of total cost of a product i.e. direct & indirect cost and fixed & flexible cost.
Semester-IV		CO 2	Determine various levels of material i.e. reorder level, minimum level, maximum level & EOQ for managing working capital.
		CO 3	Use methods of time-keeping & time-booking and manage idle & overtime.
		CO 4	Define the features of overhead or indirect cost of production and basis of allocation and apportionment.
		CO 5	Use cost-sheet to compute unit cost of product.
		CO 6	Determine basis for computing tender price of a product.
BCGN 243	Income Tax	CO 1	Provides basic knowledge and equip students with application of principles and provisions of Income Tax Act 1961 and the relevant Rules.
Semester-IV		CO 2	Acquire conceptual knowledge of Income Tax and the basic terminology and components of Income tax.
		CO 3	Define the procedure of direct tax assessment
		CO 4	Able to file IT return on individual basis.
		CO 5	Able to compute total income and define tax complicacies and structure.
		CO 6	Able to understand amendments made from time to time in Finance Act.
BCGN 244	Arithmetic Skills	CO 1	To enable students to gain understanding of Mathematical Applications to business activities.
Semester-IV		CO 2	Define basic terms in the areas of business ratios, Proportion and Percentage and calculation of Interest and EMIs.
		CO 3	Solve problems in the areas of business calculus, simple and compound interest account, use of compound interest account, loan and consumer credit.
		CO 4	Acquires conceptual knowledge on Matrices and Determinates and conditions for existence and uniqueness of solution.
		CO 5	Identifies and defines the relationships that exist among the business variables.
		CO 6	Connect acquired knowledge and skills with practical problems in economic practice.
BCGN 351	Computer Application Skills	CO 1	Provides an exposure to the use of office automation software and accounting package software in making business decisions.
Semester-V		CO 2	Work effectively with a range of current, standard, Office Productivity software applications.
		CO 3	Evaluate, select and use office productivity software appropriate to a given situation.
		CO 4	Apply basic adult learning and assessment principles in the design, development, and presentation of material produced by office productivity applications

		CO 5	Demonstrate employability skills and a commitment to professionalism.
		CO 6	Operate a variety of advanced spreadsheet, operating system and word processing
		000	functions.
		CO 7	Familiarize the students automation of accounts, Inventory Control, Accounts of
		CO /	Banking and Departmental Accounting through Application of Tally Software
BCGN 353	Financial Market Operations	CO 1	To enable the students to understand the operations of financial markets.
Semester-V		CO 2	To impart knowledge on various financial markets and their services.
		CO 3	To introduce the students about Financial System prevalent in India
		CO 4	To impart knowledge about the structure of development banks in India
		CO 5	To understand the Central Banking Operations, functions of NBFCs, Factoring and
			Venture capital companies in India.
		CO 6	To enable the students to understand the progress of Government securities markets, Treasury Bill market, Commercial Paper Market and Certificate of
		000	Deposits Market in India.
			Understand the conceptual framework of marketing and process of decision
BCGN 354	Principles of Marketing	CO 1	making under various environmental constraints.
Semester-V		CO 2	Understand the place and contribution of marketing to the business enterprise.
		CO 3	Able to describe the customer segmentation, target marketing and positioning.
		CO 4	Able to understand how a product passes from different stages.
		CO 5	Able to understand the difference between trademark and branding.
		CO 6	Understand different methods of sale promotion.
BCGN 356	Corporate Accounting	CO 1	Acquire the basic knowledge of the Corporate Accounting and to learn the
BCGN 330	Corporate Accounting	CO 1	techniques of preparing the financial statement.
Semester-V		CO 2	Acquire the knowledge of companies accounts - Accounts of Holding Company &
			Banking Companies.
		CO 3	Get the Knowledge of banking system.
		CO 4	Learn about Working format of companies.
		CO 5	Find out how a company can dissolve. Know the process of liquidation which is included in the company accounts.
		CO 6	
BCGN 357	Principles of Micro Economics	CO 1	Understand how households (demand) and businesses (supply) interact in various market structures to determine price and quantity of a good produced.
Semester-V		CO 2	Understand the links between household behavior and the economic models of demand.
		CO 3	Represent demand, in graphical form, including the downward slope of the demand curve and what shifts the demand curve.
		CO 4	Understand the links between production costs and the economic models of supply.
		CO 5	Apply the concept of opportunity cost
		CO 6	Analyze operations of markets under varying competitive conditions
BCGN 361	Entrepreneurial Skills	CO 1	To orient the learner toward entrepreneurship as a career option and creative thinking and behavior.
Semester-VI		CO 2	Understand the basic development of entrepreneurship as a profession
		CO 3	Identify and implement systems for collecting and analyzing information to monitor the performance of a new firm
		CO 4	Understand the differences between an entrepreneurial venture and an ongoing business operation
		CO 5	Understand the critical roles of marketing research, competitive analysis, consumer value proposition, and market-entry strategy in the development of a business plan.
		CO 6	Understand the importance and role of ethical, sustainability, innovation and global issues for strategic decision making.
BCGN 362	Bank Management	CO 1	Acquaint the students with the basics of Commercial Bank Management
Semester-VI		CO 2	Familiar with and able to navigate the various overlapping legal and regulatory regimes applying to banks and bank holding companies
		CO 3	Have Knowledgeable of the root causes of bank panics and wholesale runs and the regulatory framework which has evolved to address this systemic risk.
		CO 4	Demonstrate a comprehension of the principles of banking law and its relationship to banks and customers
		CO 5	Demonstrate an awareness of law and practice in a banking context.

		CO 6	Engage in critical analysis of the practice of banking law from a range of perspectives.
		CO 7	Organize information as it relates to the regulation of banking products and services.
BCGN 364	Auditing	CO 1	Impart knowledge about the principles and methods f auditing and their applications.
Semester-VI		CO 2	Understand the audit process from the engagement planning stage through completion of the audit, as well as the rendering of an audit opinion via the various report options.
		CO 3	Understand auditors" legal liabilities, and be able to apply case law in making a judgment whether auditors might be liable to certain parties
		CO 4	Understand to describe the various levels of persuasiveness of different types of audit evidence and explain the broad principles of audit sampling techniques
		CO 5	Understand to discuss the need for an independent or external audit and describe briefly the development of the role of the assurance provider in modern business society
		CO 6	Understand the quality control procedures necessary to ensure that a competent assurance engagement is performed and apply professional ethics including Code of Conduct to specific scenarios
BCGN 366	Human Resource Management	CO 1	Understand the functions, process and task of Human Resource Management
Semester-VI		CO 2	Acquire knowledge about the importance of human resources management in an organization and the scope of human resource management.
		CO 3	Analysis the importance of different methods of training given to the employees in organization.
		CO 4	Memorize the difference between on the job training and off the job training.
		CO 5	Learn the participant of industrial relation and recruitment of good industrial relation programme.
		CO 6	Understand the concept of industrial relations and meaning of industrial unrest.
BCGN 367	Indian Economy	CO 1	Understand the major economic problems in India and their solutions.
Semester-VI		CO 2	Provide an understanding of modern tools of macro-economic analysis and policy framework.
		CO 3	Understand the causes and consequences of business cycles.
		CO 4	Understand the roles of fiscal and monetary policy in fighting recessions and inflation.
		CO 5	Understand factors that contribute to and detract from long-term economic growth.
		CO 6	Apply economic reasoning to understand the operation of an economy.

Course Outcomes

	M.Com Commerce				
MAJOR - I	Management Concepts and Organisational Behaviour	CO 1	To provide conceptual understanding of Management concepts, principles and functions.		
		CO 2	To facilitate the students how human behavior in the organization could be managed successfully.		
		CO 3	Ability to execute managerial tasks of planning, organizing and controlling.		
		CO 4	To familiarize with communication motivation and leadership towards directing		
		CO 5	In-depth understanding of emotional labour and different types of emotions.		
		CO 6	Ability to analyze challenges and opportunities in the field of organization behavior.		

MAJOR - II	Business Environment	CO 1	As the environment in which an executive in taking business decisions are keep changing from time to time the Managers are expected to know about that he/she guess the situation and takes the wise Managerial decisions.
		CO 2	Skill to identify and differentiate various Micro and Macro factors affecting functioning of Business.
		CO 3	Ability to analyze Indian Economy in light of changing government regulatory policies.
		CO 4	Ability to file complaint against unfair trade practices under Consumer Protection Act.
		CO 5	Familiarization with the objectives and strategies in Economic planning with special reference to Planning Commission.
		CO 6	Familiarization with the Theoretical Framework of International and Technological Environment.
MAJOR - III	Accounting for Managerial Decisions	CO 1	To understand concepts of Management Accounting.
		CO 2	The practical application for managerial decision making
		CO 3	To develop the skills to analyze the Financial Statements.
		CO 4	To apply and analyze different types of activity-based management tools through the preparation of estimates.
		CO 5	To analyze Cost-Volume-Profit techniques to determine optimal managerial decisions.
		CO 6	To impart highly relevant skills in areas such as budgeting and decision making which will enable to identify the most effective profitable opportunities and to contribute significantly to better management within the organization.
MAJOR - IV	Statistical Analysis	CO 1	To bring out clearly the importance of statistics in solving different research problems.
		CO 2	To enable the students in-depth understanding of the concepts of probability, sampling, correlation and their applicability
		CO 3	To help the students gain a comprehensive view of the usage and importance of SPSS in solving different statistical problems.
		CO 4	Development of logical reasoning ability in students.
		CO 5	Knowledge about the applicability of various parametric and non-parametric tests.
		CO 6	Ability to make decisions under uncertain business situations.
MAJOR - V	Human Resource Management	CO 1	To provide the students to understand the functions, process and task of Human Resource Management.
		CO 2	To develop among students various practices followed by HR managers.
		CO 3	To create understanding about recent trends and innovations in HRM
		CO 4	To familiarize recruitment and selection, Training & Development procedures
		CO 5	To know the methods of wage and salary administration – compensation plans
		CO 6	Knowledge regarding the developing role of human resource management in the globalized world.
MAJOR - VI	Managerial Economics	CO 1	Aims at enabling the managers in different spheres to take wise managerial decisions in the areas like production, pricing, distribution and Marketing to
			benefit all the stake holders
		CO 2	Ability to forecast demand in light of changing circumstances and to formulate
		CO 2	Ability to forecast demand in light of changing circumstances and to formulate business plans.
			Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies.
		CO 3	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies. Knowledge about Profit Planning and control.
		CO 3 CO 4	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies.
MAJOR - VII	Advanced Financial Accounting	CO 3 CO 4 CO 5	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies. Knowledge about Profit Planning and control. Interpret regression analysis and discuss why it's employed in decision-making. Skill to analyze effects of Government Policies. To understand and apply financial accounting tools and techniques for managerial
MAJOR - VII		CO 3 CO 4 CO 5 CO 6	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies. Knowledge about Profit Planning and control. Interpret regression analysis and discuss why it's employed in decision-making. Skill to analyze effects of Government Policies. To understand and apply financial accounting tools and techniques for managerial decision making To inculcate the competency to the students to solve problems relating Special
MAJOR - VII		CO 3 CO 4 CO 5 CO 6 CO 1	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies. Knowledge about Profit Planning and control. Interpret regression analysis and discuss why it's employed in decision-making. Skill to analyze effects of Government Policies. To understand and apply financial accounting tools and techniques for managerial decision making To inculcate the competency to the students to solve problems relating Special areas in accounting including accounting for Services Sector.
MAJOR - VII		CO 3 CO 4 CO 5 CO 6 CO 1 CO 2 CO 3	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies. Knowledge about Profit Planning and control. Interpret regression analysis and discuss why it's employed in decision-making. Skill to analyze effects of Government Policies. To understand and apply financial accounting tools and techniques for managerial decision making To inculcate the competency to the students to solve problems relating Special areas in accounting including accounting for Services Sector. To understand the Financial Reporting Practices.
MAJOR - VII		CO 3 CO 4 CO 5 CO 6 CO 1	Ability to forecast demand in light of changing circumstances and to formulate business plans. Ability to chalk out Business Policies. Knowledge about Profit Planning and control. Interpret regression analysis and discuss why it's employed in decision-making. Skill to analyze effects of Government Policies. To understand and apply financial accounting tools and techniques for managerial decision making To inculcate the competency to the students to solve problems relating Special areas in accounting including accounting for Services Sector.

		CO 2	To know the modern marketing concepts and evaluation.
		CO 3	Ability to understand the changing Marketing Environment.
		CO 4	Knowledge of different consumer and business buying behaviors.
		CO 5	Familiarization with product related decisions.
		CO 6	To explore the place mix and strategies decisions
major - iX	Financial Management	CO 1	To understand the conceptual framework of financial management and its applications under appropriate decision making situations
		CO 2	To introduce the students about the importance of Finance Management for a business.
		CO 3	To enable students to select an investment project out of alternative investment proposals.
		CO 4	To enable them to understand the various modes and techniques of managing the financial resources of an organization.
		CO 5	To know about the various factors to be considered while planning for financial policies To acquaint the students regarding the various types of decisions taken by financial transfer of the students regarding the various types of decisions taken by financial transfer or the students of the students regarding the various types of decisions taken by financial transfer or the students of the stude
		CO 6	To acquaint the students regarding the various types of decisions taken by infancial
MAJOR - X	Entrepreneurial Development and MSME Management	CO 1	To realize the importance of entrepreneurship qualities required for small business management.
		CO 2	Have the ability to discern distinct entrepreneurial traits
		CO 3	Know the parameters to assess opportunities and constraints for new business ideas
		CO 4	Understand the systematic process to select and screen a business idea
		CO 5	Design strategies for successful implementation of ideas
	PHIANCIAI IVIAIREIS ANG	CO 6	Identify the evaluation of Project and write a business plan
major - X	Gi	CO 1	To impart knowledge on various financial markets and their services.
		CO 2	To introduce the students about Financial System prevalent in India
		CO 3	To impart knowledge about the structure of development banks in India
		CO 4	To understand the Central Banking Operations, functions of NBFCs, Factoring and Venture capital companies in India.
		CO 5	To enable the students to understand the progress of Government securities markets, Treasury Bill market, Commercial Paper Market and Certificate of Deposits Market in India.
		CO 6	Detailed understanding about the Banking Structure of the country and its recendevelopments.
MAJOR - XII	Economic Legislation	CO 1	To provide students knowledge on various economic legislations required for running a business organization
		CO 2	Students understand the regulations and provisions of Trade, Competition and Consumer Protection.
		CO 3	Understand the regulations and provisions of Essential Commodities and Standard of Weights and Measures
		CO 4	Understand Management of Foreign Exchange Transactions
		CO 5	Understand the laws relate to Intellectual property, copy right law & enforcement.
		CO 6	Understand the Securities and Exchange Board of India Act,1992
MAJOR - XIII	Corporate Tax Planning	CO 1	To understand the innovative ideas in corporate tax in India.
		CO 2	To give expert advices to whom is required regarding various tax issues fo decision making.
		CO 3	To familiarize the concepts of Tax Planning and Tax Management.
		CO 4	To understand the concept of Corporate taxation and Computation income from business.
		CO 5	To familiarize Tax Issues Relating to Business Restructuring
		CO 6	To acquaint knowledge related to Tax payments - TDS - TCS - Advance paymen of Tax
OPTION PAPER I	Advertising and Sales Promotion	CO 1	To enable the students to learn the fundamentals of advertisements and step- involved in selling process
		CO 2	To introduce the various principles adopted for advertising and marketing different products
		CO 3	Ability to study market trends and consumer behavior.
		CO 4	Understanding of sales milestones, sales situations, selling styles and sales
		CO 4	strategies followed by different business houses

	ı		Ability to connecting advertising strategies and organizational goals with the moral
		CO 5	code of conduct in advertising
		CO 6	Skill to targeting new business and exploit new areas of opportunity.
OPTION	Madatia Danas		To give exposure to students the techniques of market research & To enhance the
PAPER II	Marketing Research	CO 1	students understanding of the marketing research industry.
		CO 2	To develop skills required by the researcher and understand different applications of Marketing Research in Marketing Decision-making.
		CO 3	To help students develop their research, inquiry and communication skills while providing a road map to their future career in Marketing or International Business.
		CO 4	To provide students with an overview of career opportunities in Marketing and International Business.
		CO 5	To explore different approaches of Marketing research.
		CO 6	To understand the process by which market information is collected and analysed and to apply this understanding to the development of a marketing plan in response to a real life client problem.
major $X_{\!$	Strategic Management	CO 1	Aims at familiarizing with different aspects of strategy and evaluating the decisions based upon the basic/strategic situation.
		CO 2	To describe the role of strategic management in the success of successful companies.
		CO 3	Familiarization with the strategic management process.
		CO 4	Understanding about the techniques to scan an environment and the role of environment scanning in hurdle less strategic management of an organization.
		CO 5	Understanding about the equal importance of strategy formulation and strategy implementation.
		CO 6	Clarity about the strategies followed by different companies in the corporate world.
MAJOR XV	E-Commerce	CO 1	To impart knowledge about the relevance of E-Commerce in current competitive environment.
		CO 2	To make the students aware about the common legal, ethical and tax issues involved in e-commerce.
		CO 3	To develop understanding of the working of online shopping and e-payment.
		CO 4	Ability to start up and operate e-commerce website.
		CO 5	Familiarization with online payment services and different cyber laws.
major Xvi	Corporate Reporting Practices	CO 6	Ability to understand customer relationship life. To provide students knowledge on various accounting standards applicable in Corporate business.
		CO 2	Identify and understand the whole spectrum of corporate reporting practices.
		CO 3	Describe the objectives of financial statements and the qualitative characteristics of financial statements.
		CO 4	Interpret and apply International Accounting Standards and interpretations adopted by the International Accounting Standards Board (IASB).
		CO 5	Analyze and evaluate financial statements, and prepare detailed reports thereon, tailored to the technical understanding of the different user groups.
		CO 6	Evaluate and discuss the main issues currently facing the professional accountant in the field of financial reporting, including the professional and ethical duties of the accountant.
OPTION PAPER III	Brand Management	CO 1	To enable the students to learn the fundamentals of brand management and strategies.
		CO 2	To introduce the students about various brand related issues viz. Brand Management, Brand Equity and Brand Loyalty
		CO 3	Familiarization with Brand Management, Brand Equity and product branding strategies.
		CO 4	Ability to measure Brand Performance using Research techniques.
		CO 5	Understanding of various Retail formats and Retail locations.
OPTION		CO 6	Ability to integrate Retail Supply Chain.
OPTION PAPER IV	Services Marketing	CO 1	Aims at to acquaint the students with the basics of service sector marketing and its strategies for different services
		CO 2	To impart knowledge regarding customer expectations from services and their perceptions about it.

	CO 3	Capability to evaluate the suitability of different pricing methods for services.
	CO 4	Understanding of the roles of employees and customers in service delivery.
	CO 5	Capability to analyze different service quality models.
	CO 6	Ability to analyze and interpret marketing research findings.

Department: MATHEMATICS (BSc.)

Programme Outcomes (POs):

On successful completion of Graduate & Post Graduate programme, the students will be able to

- **PO1.** Acquire comprehensive knowledge and skills.
- **PO2.** Make use of the knowledge in an innovative manner.
- **PO3.** Effectively apply the knowledge and skills to address various issues.
- **PO4.** Adapt to the ever-emerging demands of work place and life.
- **PO5.** Be inquisitive and establish cause and effect relationship.
- **PO6.** Investigate and report.
- **PO7.** Develop rationale and scientific thinking process.
- **PO8.** Use technology intelligently for communication, entertainment and for the benefit of mankind.

Program Specific Outcomes

- **PSO1:** To employ critical thinking.
- **PSO2:** Formulate and develop mathematical arguments in a logical manner.
- **PSO3:** Familiarize the students with suitable tools of mathematical analysis to handle issues and problems in mathematics and related sciences.
- **PSO4:** Acquire good knowledge and understanding to solve specific theoretical and applied problems in advanced areas of mathematics and statistics.
- **PSO5:** Provide students/learners sufficient knowledge and skills enabling them to undertake further studies in mathematics and its allied areas on multiple disciplines concerned with mathematics.
- **PSO6:** Understand, formulate and use quantitative models arising in social science, business and other contexts
- **PSO7:** Students will be aware of and able to develop solution-oriented approach towards various Social and Environmental issues.

Course Outcomes

			B.Sc Mathematics
MATH111	Theory of Equations and Trigonometry	CO1	Describe the relation between roots and coefficients.
		CO2	Transform the equation through roots multiplied by a given number, increase the roots, decrease the roots, removal of terms
		CO3	Develop the skills to solves problems based on algebra and trigonometry
		CO4	Acquire the knowledge of teams and concepts used in theory of equations and trigonometry
MATH112	Differential Calculus	CO1	Select and apply appropriate models and differentiation techniques to solve problems
		CO2	Students will be familiar with the techniques of differentiation of function with real variables
		CO3	Understand the concept of curvature and calculate curvature when the curve is defined in Cartesian form
		CO4	Apply derivative tests in optimization problems appearing in social sciences, physical sciences, life sciences and a host of other disciplines.
MATHIA	Internal Colombia	CO1	Students will be familiar with the techniques of
MATH122	Integral Calculus	CO1	Integration of function with real variables
		CO2	To develop an understanding of Triple Integral.
		CO3	To understand the Integral Problem formulation and solution method.
		CO4	To describe methods for solving Beta and Gamma Function
MATH231	Abstract Algebra	CO1	Relate abstract algebraic constructs to more familiar number sets and operations and see from whether the constructs derive
		CO2	Understand the basic concepts of group actions and their applications
		CO3	Know the fundamental concepts in ring theory such as the concepts of ideals, quotient rings, integral domains, and fields
		CO4	The students will actively participate in the transition of important concepts such homomorphisms & isomorphisms from discrete mathematics to advanced abstract mathematics.
MATH232	Real Analysis - I	CO1	Acquire the knowledge of role Real number system
		CO2	Understand the real number system and countable concepts in real number system
		CO3	Learn the concept of convergence of sequence and series of Real number system
		CO4	Identify the continuity of a function defined on metric spaces
MATH233	Logic and Lattices	CO1	Understand the concepts of Mathematical logic such as Connections, Concepts of Tautology etc
		CO2	Study the concepts of Relations and Functions
		CO3	Gains knowledge in Formal languages and Automata
		CO4	Classify the concept of Lattices and Boolean Algebra
MATH241	Linear Algebra	CO1	Explain the theory behind relations and functions and identify domains and images of functions, based on the structures given
		CO2	Understand the concepts of vector spaces, subspaces, bases, dimension and their properties
		CO3	Relate matrices and linear transformations, compute eigenvalues and eigenvectors of linear transformations
		CO4	Learn properties of inner product spaces and determine orthogonality in inner product spaces Understand several standard concepts of metric spaces and their properties like
MATH242	Real Analysis -II	CO1	Onderstand several standard concepts of metric spaces and then properties like
	•	CO2	Learn the different definitions related to Riemann Integrals
		CO3	Understand the consequences of various mean value theorems for differentiable functions.

		CO4	Improve the skill of problem solving in Real Analysis
MATH243	Vector Calculus	CO1	Acquire the knowledge of concepts of the geometric properties surfaces, three dimensional vectors, vector valued functions, planes, lines and the cylindrical and spherical coordinate systems
		CO2	Learn the graph, differentiate, integrate, and solve applied problems involving parametric equations and vector-valued functions.
		CO3	Manipulate vectors to perform geometrical calculations in three dimensions.
		CO4	Realize importance of Green, Gauss and Stokes' theorems in other branches of mathematics.
MATH351	Programming Using SciLab- Practical	CO1	The aim of this lab is to introduce you to the software SciLab for numerical computations and in particular familiarizing yourself with the SciLab Desktop, basic commands through the Command window and output through the Graph
		CO2	Interpret and visualize simple mathematical functions and operations thereon using plots/display
		CO3	Analyze the program for correctness and determine/estimate/predict the output and verify
		CO4	Evaluate, analyze and plot results
MATH352	Complex Analysis - I	CO1	Understand basic complex number system and varieties of operations, analyses and problems
		CO2	Understand the significance of differentiability and analyticity of complex functions leading to the Cauchy Riemann equations.
		CO3	Learn complex differentiation, Planer mappings, analytic and harmonic functions, conformal mapping
		CO4	Improve the skill of problem solving in Complex Analysis
MATH354	Ordinary Differential Equations	CO1	Understand the genesis of ordinary differential equations
		CO2	Learn various techniques of getting exact solutions of solvable first order differential equations and linear differential equations of higher order
		CO3	Use the techniques of finding Laplace transforms and inverse Laplace transforms of real functions and their application in solving ordinary differential equations

MATH364	Partial Differential Equations	CO1	Acquire the knowledge of PDE
		CO2	Expose different techniques of finding solution of PDE
		CO3	Apply a range of techniques to solve first & second order partial differential equations
		CO4	Model physical phenomena using partial differential equations such as the heat and wave equations
MATH366	Mathematical Statistics - II	CO1	Perform correlation, regression analysis and appropriate statistical tests for real life situations
		CO2	Explore small and large data-sets to create testable hypotheses and identify appropriate statistical tests
		CO3	Apply the different sampling methods for designing and selecting a sample from a population.
		CO4	Formulate null and alternative hypotheses and apply small, large sample and non- parametric tests in real life problems
MATH367	Numerical Methods	CO1	Obtain numerical solutions of algebraic and transcendental equations
		CO2	Learn about various interpolating and extrapolating methods
		CO3	Solve initial and boundary value problems in differential equations using numerical methods.
_		CO4	Apply various numerical methods in real life problems

		CO4	Formulate mathematical models in the form of ordinary differential equations to suggest possible solutions of the day to day problems arising in physical, chemical and biological disciplines
MATH356	Mathematical Statistics - I	CO1	Acquire the basic knowledge of probability axioms and rules and the moments of discrete and continuous random variables as well as be familiar with common named discrete and continuous random variables
		CO2	how to derive the probability density function of transformations of random variables and use these techniques to generate data from various distributions
		CO3	Understand the most common discrete and continuous probability distributions and their real life applications
		CO4	how to translate real - world problems into probability models
MATH357	Programming using SCILAB	CO1	Develop programs in SCILAB
		CO2	Perform mathematical Modeling in SCILAB
		CO3	To develop programs for 2-D graphics for Contour plots
		CO4	Application in solving ordinary differential equations using Scilab
MATH361	Programming Lab in Numerical methods-Practicals	CO1	Implement simple mathematical functions/equations in numerical computing environment such as MATLAB/ SCILAB
		CO2	Develop and implement stable and accurate numerical methods to solve linear systems of equations and find roots of linear and non-linear eqns
		CO3	Perform numerical interpolation, curve fitting, integration, and differentiation
		CO4	Develop and implement stable algorithms to solve ordinary differential equations and simple partial differential equations.
MATH362	Complex Analysis -II	CO1	Acquire the knowledge of Complex Integration
		CO2	Learn the role of Cauchy Goursat theorem and Cauchy integral formula in evaluation of contour integrals
		CO3	Understand the convergence, term by term integration and differentiation of a power series
		CO4	Learn Taylor and Laurent series expansions of analytic functions, classify the nature of singularity, poles and residues and application of Cauchy Residue theorem

Department: PHYSICS (B.Sc)

Programme Outcomes (POs):

After completing B.Sc. (Physics) Programme students will be able to:

PO1: Apply the basic principles of Physics to the events occurring around us and also in the world.

PO2: Try to find out or analyze scientific reasoning for various things.

PO3: Use of computers and various software and programming skills.

PO4: Apply the knowledge to develop the sustainable and eco - friendly technology for pollution free environment.

PO5: Collaborate effectively on team-oriented projects in the field of Physics.

PO6: Communicate scientific information in a clear and concise manner both orally and in writing or through audio video presentations.

PO7: Develop ability to work in group

PO8: Develop capacity of critical reasoning. Judgment and communication skills.

PO9: Develop abilities for logical thinking

Programme Specific Outcomes (PSOs):

PSO1: The course as a whole opens up several career doors for the students interested in various areas of science and technology in private, public and government sectors.

PSO2: Students may get job opportunities in higher education, research organizations, physics consultancy, radiology and many others.

PSO3: Some of the institutions where physics students can start their carrier are: BARC (Bhabha Atomic Research Centre), NPTC (National Thermal Power Corporation), IISc (Indian Institute of Science), ISRO (Indian Space Research Organization), ONGC (Oil and Natural Gas Corporation), BHEL (Bharath Heavy Electricals Limited), NITs (National Institute of Technology), etc.

Course Outcomes

B.Sc Physics

PHYS-111	Mechanics of particles, rigid bodies and continuous media	CO1	To Understand the Laws of Motion.
		CO2	To Understand the Basics of Vector Calculus
		CO3	Understand the Laws of Gravitation, GPS
		CO4	To Understand the Rigid Body Dynamics
		CO5	To Understand and determination Elasticity, Viscosity and Surface Tension Properties and their Applications
PHYS-112	Kinetic theory and thermodynamics	CO1	To Understand the Laws of Thermodynamics and their applications.

		CO2	To Understand the different Thermodynamic Potential and application of Specific heat of gases
		CO3	To Understand the Black Body Radiation and derivation of different Laws of Radiation
		CO4	Introduction to Statistical Mechanics
PHYS - 121	Oscillations waves and acoustics	CO1	To Understand the Superposition Principle of Harmonic Oscillations analytically and Garaphically and understand the Beat Phenomenon
		CO2	To Understand Wave Motion and Applications
		CO3	To Understand the Sound Phenomenon and dependence of its on Pressure and Temperature
		CO4	To Understand Acoustics and its applications
PHYS - 122	Optics	CO1	To Understand Fermat's Principals and Matrix Method of representation in Paraxial Optics
		CO2	To study Reflection and Refraction Phenomenon in Optics and different Aberrations present in lenses
		CO3	To study Interference and Diffraction of Light and their Applications
		CO4	To Understand Polarization of Light, its production and applications
PHYS - 231	Electricity and Magnetism	CO1	To Study Vector Analsis and introduction to Gauss-divergence and Stoke's Theorem
		CO2	To Understand Electric Force, Electric Field and Electric Potential in different configurations
		CO3	To Understand the basics laws of Magnetism and calculations of magnetic field of a Straight, Cirular Coil carry current .
		CO4	To Study Maxwell's Equation and Electromagnetic Wave Propagation.
PHYS – 232	Modern Physics and Relativity	CO1	To Understand the various problems where Classical Physics fails to explain which leads to Modern Physics
		CO2	To Understand Plank's Quantum Principle, Photon, Photo Electric effect and its applications
		CO3	To Understand Schrodinger equation and introduction to Quantum mechanical operators, Physics interpretation of wave equation, Probabilities

		604	To Understand Special Theory of Relativity and its Postulates. Length
		CO4	Contraction etc.
DITYC 241	O	CO1	Understand the Time Dependent Schrodinger Equation and its Applications and
PHYS – 241	Quantum Mechanics	CO1	evaluation of Quantum mechanical Operators
		CO2	Understand the Time Independent Schrodinger Equation and its Applications and
		CO2	evaluation of Quantum mechanical Operators
		CO3	Discussion of bound States in an arbitrary potentials
		CO4	Understand the Quantum Theory of Hydrogen and like atoms.
PHYS - 242	Electronics	CO1	Understanding of Network Theorems, LR,CR, LCR Circuits
		CO2	Study of different Diodes, biasing of Diodes and Applications
		CO3	Study of different Transistor, Biasing and Applications
		CO4	Understand the Quantum Theory of Hydrogen and like atoms.
PHYS - 242	Electronics	CO1	Understanding of Network Theorems, LR,CR, LCR Circuits
		CO2	Study of different Diodes, biasing of Diodes and Applications
		CO3	Study of different Transistor, Biasing and Applications
		CO4	Study of different FET, JFET, MOSFET and applications
		CO5	Study of different Operational Amplifiers, its properties and its applications
DUIVO 252	0 1:10; , Pl :	001	Understanding of Crystallography, lattice parameters, XRay Diffraction of
PHYS – 352	Solid States Physics	CO1	Crystals
		CO2	Study of types of bonding in solids, lattice vibrations-Optic and acoustic mode
		CO3	Study of different conduction mechanism in solids
		CO4	Study of different magnetic properties and applications in Solid State Physics
		00.5	Study of Superconductors, Meisesner Effect and Type-I and Type-II Super
		CO5	Conductors.
DIIVO 252	Atomic and Molecular	601	Understanding of Atomic Specyra, Coupling of Orbiatls, X Ray Spectra,
PHYS – 353	Spectroscopy	CO1	Moseley's law
		CO2	Study of the Effect of Magnetic Field on energy levels: Zeeman effect
		CO3	Understanding of Rotational and Vibrational levels and their applications
		CO4	Study of Raman Effect and its Applications
		CO5	Understanding of Laser Systems and their applications

PHYS - 2354	Digital Electronics	CO1	Understanding of Binary Numbers System an different logic gates, Karnaugh map, Combinational logic gates
		CO2	Understanding working principle of Flipflpts-RS Filpflop, JK Filpflop, JK-Master slave Filpflop,
		CO3	Understanding working principle of Multiplexrs, Counters, A/D and D/A Converters
		CO4	Study of Pin Configuration, Addressing modes, Instruction set of Microprocessors
		CO5	Study of Components of Microprocessors , Programming of Microprocessors.
PHYS - 362	Numerical Methods and Computational Physics	CO1	Understanding of Binary Numbers System an different logic gates, Karnaugh map, Combinational logic gates
		CO2	Understanding working principle of Flipflpts-RS Filpflop, JK Filpflop, JK-Master slave Filpflop,
		CO3	Understanding working principle of Multiplexrs, Counters, A/D and D/A Converters
		CO4	Study of Pin Configuration, Addressing modes, Instruction set of Microprocessors
		CO5	Study of Components of Microprocessors , Programming of Microprocessors.
PHYS - 363	Numerical Methods and Computational Physics	CO1	Understanding the properties of Nucles – Size, mass, Charge Desnsity, Binding Energy
		CO2	Understanding different Nuclear Model, Magic Numbers and Concept of Nucler Force.
		CO3	Understanding Radioactivity Delcay , Nuclear Reactions, Conservation Laws
		CO4	Understanding the basics of Particle Physics and Different Quantum Numbers conservation rules
PHYS - 364	Renewable Energy and Energy harvesting	CO1	Understanding the importance of Alternative Soruces of Energy – Fossil fuels and Nuclear Energy etc
		CO2	Study of Solar Energy and its importance
		CO3	Importance of Geothermal Energy an Hydropower Recourses

		CO4	Importance of Electromagnetic Harvesting and Recent Applications -Environmental Issues
PHYS - 355	Astrophysics	CO1	Understanding Radiointerferimetry - Characterstics and Properties. Working of Hubble Space Telescope
		CO2	Study of Astronomical Objects, Chandrasekhar limit, Schwarzschild Radius, Tidal and Planetesimal Theories
		CO3	Study of Solar System, Big bang Theory
		CO4	Application of Astrophysics, Rocket equations and Theory of Geosynchronous Satellite.
PHYS - 365	Communication Electronics	CO1	Understanding Amplitude and Frequency Modulation
		CO2	Study of Image Transmission principle, Working of TV
		CO3	Study of Wave Propagation in Space
		CO4	Application of Communication Electronics

Department: CHEMISTRY (B.Sc)

Programme Outcomes (POs):

On successful completion of Graduate programme, the students will be able to:

PO 1: Gain Domain Expertise:

- Acquire comprehensive knowledge and skills.
- Make use of the knowledge in an innovative manner.
- Effectively apply the knowledge and skills to address various issues.

PO 2: Gain Life-long Learning and Research:

- Learn "how to learn"- Self motivated and self directed learning.
- Adapt to the ever emerging demands of work place and life.
- Be inquisitive and establish cause and effect relationship.
- Investigate and report.

PO 3: Gain Modern equipment Usage

- Use ICT effectively.
- Access, retrieve and use authenticated information.
- Access, retrieve and use authenticated information. Have knowledge of software applications to analyze data.

PO 4: Gain Computing Skills and Ethics

- Develop rationale and scientific thinking process.
- Use technology intelligently for communication, entertainment and for the benefit of mankind.
- Ensure ethical practices throughout ones endeavors for the well being of human race.

PO 5: Complex problem Investigation & Solving

- Predict and analyze problems.
- Frame hypotheses.
- Investigate and interpret empirical data.
- Plan and execute action.

PO6: Perform effectively as Individuals and in Teams

- Work efficiently as an individual
- Cooperate, coordinate and perform effectively in diverse teams/groups.

Prioritize common interest to individual interest.

PO 7 Efficient Communication & Life Skills

- Express thoughts in an effective manner.
- Listen, understand and project views in a convincing manner.
- Decide appropriate media to share information.
- Develop skills to present significant information clearly and concisely to interested groups.

PO 8 Environmental Sustainability

- Understand sensibly the Environmental challenges.
- Think critically on environment sustainability measures.
- Propagate and follow environment friendly practices.

PO 9 Societal contribution

- Render service for the general good of the society.
- Involve voluntarily in social development activities at Regional, National, global levels.
- Have own pride in volunteering to address societal issues viz: calamities, disasters, poverty,
 epidemics.
- Be a patriotic citizen to uphold the values of the nation

PO 10 Effective Project Management

- Identify the goals, objectives and components of a project and decide the appropriate time of completion.
- Plan, organize and direct the endeavors of teams to achieve the set targets in time.
- Be competent in identifying opportunities and develop strategies for contingencies

Programme Specific Outcomes (PSOs):

- **PSO-1:** Gain strong foundation in theoretical principals in different areas of Chemistry such as Analytical Chemistry, Environmental Chemistry, Inorganic Chemistry, Physical Chemistry and Organic Chemistry.
- **PSO-2:** Learn problem solving approach and skills in Physical Chemistry, Organic Chemistry and Analytical Chemistry.
- **PSO-3:** Develope experimental skills through lab courses and also to analyse the results in the different areas of Chemistry.

- **PSO-4:** Gain sound knowledge in of the analysis of inorganic and organic substances and estimate the different parameters present in drugs and water.
- **PSO-5:** Gain hands on experience on the safe handling of chemicals, reagents and sophisticated analytical Equipment.
- **PSO-6:** Understands Nomenclature, reactions, mechanisms of various reactions of different functional groups in Organic Chemistry and develops skills to apply to different synthetic methodologies.

Course Outcomes

B.Sc Chemistry

General Chemistry-I	CO – 1	Understand the basics of Atomic Structure, Trends in the periodic table, derivation of Schrodinger wave equation.
	CO – 2	Understand the basics of Chemical bonding, Molecular Orbital theory & Valance bond theory, hybridization and discussion on structures of molecules
	CO – 3	Study about the basics of Nomenclature, Hybridisation and Electron displacement effects, aromaticity. To study about the types of reagents, Organic reactive intermediates and types of Organic reactions.
	CO – 4	Understands the basics of Stereochemistry ,RS Configurations, E & Z configurations,Enatiomers, diasteromers,Conformations of ethane and butane and cyclohexane.
	CO – 5	Have a detailed study on the Kinetic Theory of gases - laws –Derivation of Kinetic gas equation – Vanderwaals equation- critical constants. Have thorough understanding on the basics of Maxwells distribution of molecular velocities –RMSV, AV,MPV and Collision diameter, Collision frequency,Mean free path & liquefaction of gases.
General Chemistry Practical - I (Volumetric Analysis & Chromatography)	CO – 1	Practical training in doing Volumetric Analysis, which includes Acidimetry, Alkalimetry, Permanganometry, Dichrometry, Iodometry and Complexometric titrations involving EDTA Titrations.
	CO - 2	Paper Chromatographic separation and finding of Rf Values of Amino acids
	CO – 3	Identification and Separation of Sugars by Paper Chromatography.
General Chemistry-II	CO – 1	Study Chemical Energetics, Review of Thermodynamics and the Laws of Thermodynamics, Principles of Thermochemistry, Calculation of Bond Energy and Kirchhoff's Equation, Third Law of Thermodynamics, Concepts of Entropy and Evaluation of absolute Entropy.
	CO – 2	To study Concepts of Chemical equilibrium, Lechatliers Principlevariation of equilibrium constant with temperature. Strong and weak Electrolytes, Degree of Ionization, Ionization of weak acids and Bases, Salt hydrolysis,pH Scale, Common Ion effect, Buffer solutions and Solubility Product and its Applications
	CO – 3	Study the Hydrogen, Hydrides and S-Block Elements: Hydrogen Isotopes, Hydrides-Types and Hydrogen Bonding. Study of Alkali Metals and Alkaline Earth Metals - Halides, Oxides, Hydroxides, Organometallics Compounds.
	CO – 4	Study the preparations, properties of Alkanes and Cycloalkanes and mechanism of Halogentaions of methane., Baeyers strain theory. Study the preparion properties and main reactions and mechanisms of alkenes and alkynes.
	CO – 5	To study the Benzene Chemistry, its preparations, properties, Mechanisms of Electrophilic substitution reactions, orientation in electrophilic substitution.
General Chemistry Practical - II (Physical Chemistry Practicals)	CO – 1	Experiments in Physical Chemistry, which includes

	CO-2	Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of CST of phenol- Water system, Determination of Transition Temperatures and Construction of Phase Diagrams.
Physical Chemistry - I	CO – 1	Study the Solid state - Laws of Crystallography and Xray diffraction studies- Derivation of Bragg's Equation, Determination of structures of NaCl, CsCl and KCl.
	CO – 2	To Study Chemical Kinetics, Derivation of Rate Constants, Half Life period, Pseudo order reactions, Determination of Order of Reactions, Actvation Energy
	CO – 3	To Study Catalysis, Adsorption and Photochemistry- Derivation of Michaelis- Menten Constant, Theories of Catalysis. Theories of Adsorption - Laws of Photochemistry, Jablonski Diagram- Fluorescence and Phosphorescence- Quantum Yield.
	CO – 4	Study of Dilute Solutions and Colligative Properties- Raoults Law, Molecular weight determinations, Laws of Osmatic Pressure, Elevation of Boiling Point and Depression of Freezing point. Thermodynamic derivations.
	CO – 5	Study of Phase Equilibrium, Derivation of Gibb's Phase rule, Phase equilibria of One Component and Two Component Systems, Raoults and Hendry's Law, Lower and Upper consolute temperature, Azeotropes, Nernst distribution Law-Thermodynamic derivations.
Inorganic Chemistry - I	CO – 1	To Study Nuclear Chemistry- Packing fraction, mass defect, binding Energy of Nucleus, Nuclear Models, Nuclear Fission and Fusion Reactions, Radioactivity-half life period, Group displacement Law, radioactive decay series, Isotopesseparation and Applications
	CO – 2	Principles of Qualitative Inorganic Analysis-Principles of Solubility and Solubility Product. Separation of metal ions-Sulphide separations. Application Solubility product principle in Qualitative and Quantitative Analysis. Spot Tests, Separation and Purification of mixtures.
	CO – 3	Study of Acids and Bases and Non aqueous Solvents- Acid Base Theories, Hard & Soft Acids and Bases (HSAB), Acid Base Strength & Hardness and Softness.

		CO 4	T- St. J. d. B Bl. J. El
		CO - 4	To Study the P-Block Elements- Boron, Carbon and Nitrogen Groups
		CO – 5	To Study the Oxygen-Sulphur family, Halogens and Noble gases.
			Laboratory Glassware- Types and Care, Principles of Stoichiometry- Mole and
	B : 4 1 : 1 ct :	CO – 1	Equivalent Concepts, Concentration Systems. Calculations involving various types
	Basic Analytical Chemistry		of Concentration systems.
			Principles of Titrimetric Analysis-Primary Standard and Secondary Standard
		CO – 2	Solutions. Acid-Base Titrations, Redox Titrations, Complex formation Titrations
			and Precipitation Titrations.
			Statistical Evaluation of Analytical Data-Ways of Expressing Accuracy and
		CO – 3	Precision of Data. Types of Errors- Methods of reporting data. Significant figures.
		CO-3	Statistical treatment of indeterminate errors- confidence limits Q-Test and Linear
			Regression of Data.
	Physical and Inorganic Chemistry Practical	CO – 1	Physical Chemistry Practicals-
		CO – 2	Determination of Surface Tension, Determination of Viscosity and Determination of Melting Points
		CO – 3	Inorganic Chemistry Practicals-
		CO 4	Semimicro Inorganic Analysis of a Mixture containing Two Cations and Two
		CO – 4	Anions of which one Anion being an interfering radical.
			To Study Electrochemistry - Specific Conductance and Equivalent conductance -
	Physical Chemistry - II	CO – 1	measurement, Kohlrausch law, Debye-Huckle-Onsager equation, Transport
			number-Hittorf method, Determination of Ka of Acids. Determination of Ksp.
			Types of Reversible Electrodes- Nernst Equation, Derivation of Cell EMF and
		GG 2	Single Electrode Potential Electrochemical Cells. Determination of pH and
		CO – 2	Potentiometric Titrations. Buffers- Hendersen-Hazel equation. And Hydrolysis of
			Salts.
			Elementary Quantum Mechanics-Black Body Radiation, Photoelectric effect,
		CO – 3	Compton effect, Heisenberg's uncertinity Principle, Schrodinger wave equation,
1			
1			Pastulates of Quantum mechanics, particle in one dimensional Box.
		CO – 4	Pastulates of Quantum mechanics, particle in one dimensional Box. Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy
		CO – 4	
		CO - 4	
	Organic Chemistry - I		Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties.
	Organic Chemistry - I	CO – 5	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and
	Organic Chemistry - I	CO - 5 CO - 1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties.
	Organic Chemistry - I	CO - 5 CO - 1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester.
	Organic Chemistry - I	CO - 5 CO - 1 CO - 2	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds-Nitro Compounds, Aliphatic and
	Organic Chemistry - I	CO - 5 CO - 1 CO - 2 CO - 3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts.
	Organic Chemistry - I	CO - 5 CO - 1 CO - 2 CO - 3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic
	Organic Chemistry - I Analytical and Clinical	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds.
		CO - 5 CO - 1 CO - 2 CO - 3 CO - 4	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic
	Analytical and Clinical	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Carbonyl Compounds-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of
	Analytical and Clinical	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats
	Analytical and Clinical	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Carbonyl Compounds-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their
	Analytical and Clinical	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems.
	Analytical and Clinical Biochemistry	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2 CO - 3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine.
	Analytical and Clinical Biochemistry	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2 CO - 3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes
	Analytical and Clinical Biochemistry	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Carbonyl Compounds-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate
	Analytical and Clinical Biochemistry	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Carbonyl Compounds-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using
	Analytical and Clinical Biochemistry	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2 CO - 3 CO - 1 CO - 2 CO - 3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some
	Analytical and Clinical Biochemistry	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-1 CO-2	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Carbonyl Compounds-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some important metals.
	Analytical and Clinical Biochemistry	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2 CO - 3 CO - 1 CO - 2 CO - 3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some important metals. To study in detail about the Chemistry of Lanthanides and Actinides Main focus is
	Analytical and Clinical Biochemistry	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2 CO - 3 CO - 1 CO - 2 CO - 3 CO - 1	Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some important metals. To study in detail about the Chemistry of Lanthanides and Actinides Main focus is on the variable oxidation states, magnetic properties and extraction of some
	Analytical and Clinical Biochemistry	CO - 5 CO - 1 CO - 2 CO - 3 CO - 4 CO - 5 CO - 1 CO - 2 CO - 3 CO - 1 CO - 2 CO - 3 CO - 1	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some important metals. To study in detail about the Chemistry of Lanthanides and Actinides Main focus is on the variable oxidation states, magnetic properties and extraction of some
	Analytical and Clinical Biochemistry	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-1 CO-2 CO-3	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Carbonyl Compounds-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some important metals. To study in detail about the Chemistry of Lanthanides and Actinides Main focus is on the variable oxidation states, magnetic properties and extraction of some To study in detail about the fundamentals of Co ordination Chemistry – Nomenclature – Werner's theory – valence bond theory. EAN
	Analytical and Clinical Biochemistry	CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-1 CO-2	Molecular Spectroscopy-Microwave spectroscopy and Infrared spectroscopy Raman Spectroscopy, Electronic spectroscopy and Optical activity and Polarization, Dipolemoment studies and refractivity methods, Magnetic properties. To Study Alkyl halides and Aryl halides-Preparation, Properties. To Study Alcohols and Phenols-Preparation Properties. To Study Carbonyl Compounds-Aldehydes and Ketones, Carboxylic acids and their derivatives, synthetic applications of Diethyl malonate and Acetoacetic ester. To Study Organic Nitrogen Compounds- Nitro Compounds, Aliphatic and Aromatic Amines, Diazonium salts. To Study Heterocyclic Compounds- Five and Six membered Heterocyclic compounds. Biological Chemistry-Elementary Treatment of Digestion and absorption of Carbohydrates, Proteins and Fats Enzymes and Hormones- Elementary Treatment. Micronutrients and their Biological role in Human Systems. Biochemical Analysis of Blood and Urine. Experiments in Physical Chemistry, which includes Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of pH using Quine hydrone electrode, Determination of Chromate using Spectrophotometry. Separation of Organic Mixtures To study in detail about the Principles of Metallurgy and extraction of Some important metals. To study in detail about the Chemistry of Lanthanides and Actinides Main focus is on the variable oxidation states, magnetic properties and extraction of some

		CO – 5	To study in detail about the theory Bonding in metals - Valence bond theory and Crystal defects - Schottky and Frenkel Defects.
Organic Che	mistry – III	CO – 1	Detailed study on the Chemistry of Five membered and Six membered Heterocylces – Synthesis , properties and their Mechanisms.
		CO – 2	Study on the Chemistry of Carbohydrates – Monosacharides – dermination of structure and their chemical properties of Glucose and fructose and brief introduction to disachharides and poly sachharides.
		CO – 3	To study the chemistry of Polymers – Addition and Condensation polymerisartion and preparation of differet polymers. Detailed study on the preparation preoperties of animo acros - peptides and
		CO – 4	petaned study on the preparation preoperties of anniho acids - peptides and
		CO – 5	A brief introductory study on fats oils and detrgens and synthesis of some important dyes.
Physical Che	emistry – III	CO – 1	Detailed study on Phase equilibrium – one component and two component systems – Nernst Distribution law
		CO – 2	To study in detail about the Chemistry of Chemical Kinetics – Order, molecularity of reactions – First order and second order reactions – collision theory and Arhenius Equation – Chemistry of Catalysis and Michaelis and Menten equation.
		CO – 3	TO study the chemistry of Adsorption – Langmuir Adsorption Isotherm - Basic Principles of PhotoChemistry.
		CO – 4	Study on basics of computers.
Environmental 6	Chemistry – III	CO - 1	Basic termirnology and Intoduction .
		CO – 2	Chemistry of Airpollutants and their effects and experimental determination of some important. Air pollutants by using High volume Air sampler and Spectrophotometer.
		CO – 3	Study of the Chemistry of some important air pollutants and their effects.
		CO – 4	Elementary study on Radioactive and Noise Pollution.
Practica (Gravimetric Inorganic Pr	Analysis &	CO – 1	Training in doing Gravimetric Analysis of Barium, Lead, Copper, Nickel, Magnesium and Cloride and Sulphate ions.

	CO – 2	Preparation of Inorganic Complexes such as Nickel-DMG complex, Copper tetraammine complex, Lead-Thiourea complex and trioxalato chromate complexes.
Practical - VI (Organic Qualitative Analysis & Organic Preparation)	CO – 1	Organic Qualitative Analysis of general Organic functional groups such as Phenols, Esters, Carboxylic acids, Carbohydrates, Amines, Aldehydes, Ketones, Amides, Diamides, Nitro compounds
	CO – 2	Confirmation of functional groups by preparing Derivatives.
	CO – 3	Preparation of Organic compounds using Acetylation, Benzoylation, Nitration etc.,
Inorganic Chemistry – III	CO – 1	To study in detail about the Crystal Field Theory – Octahedral and Tetrahedral Complexes-Ligand Field theory.
	CO – 2	TO study in detail about the Magnetic& spectral properties of transition complexes – spectral series and Orgel energy diagrams.
	CO – 3	A brief study on Organometalllic Chemistry
	CO – 4	To study on the basics of Bio Inorganic Chemistry and Inorganic Polymers.
Organic Chemistry – III	CO - 1	To study Organic Spectroscopy on UV and IR
	CO – 2	Detailed study on NMR and its applications to Organic Molecules.
	CO – 3	Detailed study of the mechanisms and applications of some important named reactions.
	CO – 4	To study the synthetic applications of enolates – Chemistry of Diethylmalonate – Ethyacetoacetate & Enamines
	CO – 5	To study the Chemistry of Natural product with special focus on Terpenoids and alkaloids – synthesis and structural elucidation of Alpha terpeneol – menthol – Nicotine and coniine.
Physical Chemistry – III	CO – 1	A detailed and thorough study on ElectroChemistry and EMFs of Cells.
	CO – 2	Elementary study on Quantum Chemistry with focus on the Postulatesof quantum mehcnaics- Schrodinger wave equation – partical in one dimension box.
	CO – 3	To study in detail about the Molecular spectroscopy on Microwave – IR – Raman – Electronic Spectroscopy –basic study on PHYSICAL PROPERIES AND MOLECULAR STRUCTURE
Environmental Chemistry – II		A detailed study on different types of water pollution methods- their effects and their control.
	CO – 1	Study on the different methods of Sewage treatment and solid waste treatment
	CO – 2	Introduction to different experimental methods for the analysis of various parameters of water.
	CO – 3	A brief study on the Chemistry of Food additives & their effects.
Practical - VII (Physical Chemistry Practical)	CO – 1	Experiments in Physical Chemistry, which includes
	CO-2	Determination of Rate Constants of ester hydrolysis, Kinetics of Persulphate oxidation, Determination of Distribution Constants, Determination of CST of phenol- Water system, Determination of Transition Temperatures and Construction of Phase Diagrams.
Practical - VIII (Instrumental Methods of Analysis)	CO – 1	Instrumental Methods of Analysis, which includes
	CO – 2	Colorimetric determinations of Manganese and Iron
	CO – 3	Conductometric determination of weak and Strong Acids.
	CO – 4	Ionization Constant of weak acid
	CO – 5	pH metric determination of Weak and Strong Acids.

Department: ZOOLOGY (B.Sc)

Programme Outcomes (POs):

- **PO1:** Academic Excellence and Core competence: To provide an access to quality education and enhance the core competencies in Zoology through modern techniques.
- **PO2:** Relevant Curriculum and Learning Environment: To constantly innovate and upgrade the curriculum and teaching methodologies to make Zoology teaching and learning relevant to human life
- **PO3:** Effective Communication, Teamwork and Leadership skills: To provide an academic environment student which are conducive for academic excellence, creativity, leadership and life-long learning.
- **PO4:** Environmental sustainability, social responsibility and ethics: To inculcate responsibility and concern towards environment, biodiversity, bioethics, and sustainable development into the curriculum of Zoology.

Programme Specific Outcomes (PSOs):

- **PSO1:** Disciplinary knowledge: Students will apply the scientific knowledge acquired in Zoology and become skilled professionals adhering to the values of sustainable living.
- **PSO2:** Communication Skills, Teamwork and leadership qualities: Students will enhance their communication skills to develop an attitude to work as a team and refine leadership qualities.
- **PSO3:** Critical thinking, problem-solving and analytical reasoning: Students will demonstrate analytical reasoning, problem-solving, scientific reasoning, and reflective thinking as professionals in all frontiers of life.
- **PSO4:** Research-related skills and scientific reasoning: Students will develop and popularize scientific temper to make conceptual contributions in life sciences and promote environmental consciousness.
- **PSO5:** Skill development, entrepreneurship and lifelong learning: Students will develop skills, tools and techniques to explore prospective avenues of entrepreneurship in emerging areas of life sciences and pursue lifelong learning.
- **PSO6:** Environment and ethical awareness: Students will understand and analyses environmental and ethical issues and contribute towards the betterment of the environment and sustainable growth.
 - **PSO7:** Self-directed learning: Students will engage in self-paced and self-directed lifelong learning research and through digital literacy for personal development and professional accomplishment.
- Phone: 04368-230431, 231743, Fax: 04368-231743, Email: aagac.kkl@gmail.com

Course Outcomes

B.Sc Zoology				
u Z oc 111	Biodiversity of Invertebrates	со	To understand Biodiversity, Habitat, Adaptation organization and taxonomic status of invertebrates. Explaining the basic aspects of classification, structural and functional details of Invertebrates.	
U Z OP 114	Practical-1: Biodiversity of Invertebrates	СО	To understand Biodiversity, Habitat, Adaptation through practical	
u Z oc 121	Biodiversity Of Chordates and Vertebrates	СО	To discuss habitat, adaptations and organization of chordates.	
U Z OP 124	Practical: Biodiversity Of Chordates And Vertebrates	СО	To understand habitat, adaptations and organization of chordates through practical	
U Z OC 231	Animal Physiology	СО	To understand various aspects of physiological activities of animals with special reference to mammals.	
U Z OP 234	Practical Animal Physiology	CO	To understand various aspects of physiological activities of animals	
u Z os 233	Verm technology	СО	To impart training on Earthworm culture technology To create knowledge on Self- Employment opportunity	
U Z OC 241	Developmental Biology	СО	To understand ontogenesis, the development of animals including parthenogenesis and to study embryonic adaptations, human reproduction and reproductive technology in man.	
U Z OP 244	Practical Developmental Biology	СО	To understand the development of animals, human reproduction and reproductive technology in man.	
u Z os 243	Clinical Laboratory Technology	СО	To impart awareness on Clinical Lab Technology To create knowledge on Self- Employment Opportunity	
u Z os 351	Apiculture	CO	Entrepreneur motivation for practicing apiculture as cottage industry.	
U Z OE 352	Immunology	СО	To study the process which help to maintain the organisms internal environment, when challenged with foreign substances. To understand the advances in Immunology	
U Z OP 358	Practical: Immunology	CO	Immune organs and their function	
U Z OE 354	Cell And Molecular Biology	СО	To learn the structure and functions of various cellular components. To understand the molecular basis of cell structure DNA structure and functions.	
U Z OP 358	Practical -Cell and Molecular Biology	СО	To learn the structure and functions of various cellular components and understand the molecular basis of cell structure ,DNA structure and functions.	
U Z OE 355	Biochemistry And Intermediary Metabolism	СО	To define and explain the basic principles of biochemistry and metabolic pathway	
U Z OP 358	Practical -Biochemistry and Intermediary Metabolism	СО	To understand the basic principles of biochemistry and metabolic pathways	
u Z os 361	Aquatic Biology and Culture Techniques	CO	To study and understand the biology of fishes and make the students to know about the culture techniques of fish.	
U Z OG 357	Public Health and Hygiene	СО	To impart awareness on public health and Hygiene To create knowledge on Health Education.	
U Z OE 362	Endocrinology And Reproductive Biology	СО	Explaining the role of hormones on physiological activities of animals with special reference to humans.	
U Z OP 368	Practical Endocrinology and Reproductive Biology	СО	To understand Endocrine glands structure and functions	
U Z OE 364	Evolution And Conservation Biology	СО	To explain the scientific concepts of animal evolution through theories and evidences.	
UZOP 368	Practical: Evolution and Conservation Biology	СО	To Understand concepts of animal evolution	
U Z OE 365	Genetics And Biotechnology	CO	To know the principles of genetics and to integrate biology with technology	

Department : COMPUTER SCIENCE (B.Sc)

Programme Outcomes (POs):

The objectives of the course B.Sc Computer Science are as follows:

- **PO1:** Demonstrate proficiency in problem-solving techniques using computer science programming languages.
- **PO2:** Demonstrate proficiency in the analysis of complex problems and techniques too synthesis solutions to those problems.
- **PO3:** Demonstrate comprehension of modern software engineering principles to develop innovative software.
- **PO4:** Demonstrate the in-depth know ledge in core subjects of computer science.

Programme Specific Outcomes (PSOs):

- **PSO-1:** Ability to apply the theoretical knowledge of Mathematics, Computer software and hardware into practice.
- **PSO-2:** To develop skillset in areas such as Digital logics and computer architecture, Algorithms, Programming, Networking, Software Engineering, Information Security, Web Designing, Micro-processors and micro-controllers.
- **PSO-3**: To develop problem solving skills related to the computer programs.
- **PSO-4:** To demonstrate the capabilities required to apply cross-functional business knowledge and technologies in solving real-world problems.
- **PSO-5**: To build the necessary skill set and analytical abilities for developing computerbased solutions for real life problems.
- **PSO-6:** It provides an opportunity to prepare for the competitive examination and also getting admission to Higher Education.
- **PSO-7:** To train students in professional skills related to Software Industry like programmer, system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.
- **PSO-8:** Ability to work in public sector undertaking and Government organizations.

Course Outcomes

		В.	Sc Computer Science
CSCS113	Introduction to Problem Solving using C	CO1	Demonstrate an understanding of computer programming language concepts.
		CO2	Ability to design and develop Computer programs in C
l		CO3	Able to define data types and use them in simple data processing applications also he/she must be able to use the concept of array of structures.
		CO4	Able to analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.
CSCS114	Digital Logic and Computer Organization	CO1	Identify, understand and apply different number systems and codes.
		CO2	Understand the digital representation of data in a computer system.
		CO3	Learn about Shift registers
		CO4	Understand the general concepts in digital logic design, including logic elements, and their use in combinational and sequential logic circuit design.
CSCS116	C Lab	CO1	Skill to write program code in C to solve real world problems and to debug a program
		CO2	In-depth understanding of various concepts of C language.
		CO3	To develop software program using "C" language
		CO4	To learn the concepts of "C" Programming
CSCS117	Digital Lab	CO1	Learn the basics of gates
		CO2	Construct basic combinational circuits and verify their functionalities
		CO3	Apply the design procedures to design basic combinational circuits
		CO4	To understand the basic digital circuits and to verify their operation
CSCS123	PYTHON Programming	CO1	To learn how to design and program Python applications.
		CO2	To understand why Python is a useful scripting language for developers
		CO3	To acquire programming skills in Python.
		CO4	To acquire Object Oriented Skills in Python
CSCS124	Data Structures and Algorithms	CO1	To understand concepts about searching and sorting techniques
		CO2	To Understand basic concepts about stacks, queues, lists, trees and graphs
		CO3	To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures
		CO4	Understand basic data structures such as arrays, linked lists, stacks and queues.
CSCS128	PYTHON lab	CO1	To learn basic python concept.
		CO2	Ability to isolate and fix common errors in Python programs.
		CO3	Skill to write codes in Python to solve mathematical or real world problems.
		CO4	To develop simple Python programs and code reusing with functions
CSCS129	Data Structures & Algorithms lab	CO1	Skill to analyze data and to determine appropriate data structure.
		CO2	Knowledge of various data structures and their implementations.

		CO3	Ability to implement algorithms to perform various operations on data structures.
CSCS231	Database Management Systems	CO1	Describe the fundamental elements of relational database management systems
	+	CO2	database and formulate SQL queries on data
		CO3	Improve the database design by normalization
	+	CO4	Design ER-models to represent simple database application scenarios
CSCS232	Visual Programming using c#	CO1	To understand the various types of applications
C5C5252	Visual Flogramming using Cπ	CO2	To get expertise in visual programming
	+	CO3	To understand the functionalities of middleware platform
	+	COS	Identify and use various networking components Understand different transmission
CSCS233	Computer Networks	CO1	media and design cables for establishing a network
		CO2	Understand the TCP/IP configuration for Windows and Linux
		CO3	Implement any topology using network devices
		CO4	Implement device sharing on network
CSCS234	Software Engineering	CO1	Acquire strong fundamental knowledge in science, software engineering and multidisciplinary engineering to begin in practice as a software engineer.
		CO2	Design applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.
		CO3	Apply new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society.
		CO4	Deliver quality software products by possessing the leadership skills as an
		CO4	individual or contributing to the team development
CSCS237	Visual Programming & RDBMS Lab	CO1	understand the programming algorithm, process, and developing data base designs
		CO2	Understand the use of Structured Query Language (SQL) and learn SQL syntax.
		CO3	Apply normalization techniques to normalize the database
CSCS238	Computer Networks Lab	CO1	To educate the functions of various OSI layers in detail
		CO2	Knowledge of OSI Layers in Computer Network.
		CO3	Ability to identify transmission media, types and topologies of network.
		CO4	Familiarization with the techniques of error detection and congestion control
	Object Oriented Programming	CO4	Discuss the principles of inheritance, interface and packages and demonstrate
CSCS242	using Java	CO1	though problem analysis assignments
		CO2	To learn experience of designing, implementing, testing, and debugging graphical user interfaces in Java using applet and AWT that respond to different user events
		CO3	To understand importance of Multi-threading & different exception handling mechanisms.
		CO4	To understand the importance of Classes & objects along with constructors, Arrays and Vectors.
CSCS241	Operating Systems	CO1	Understand the basics of operating systems like kernel, shell, types and views of operating
		CO2	Describe the various CPU scheduling algorithms and remove deadlocks.
		CO3	Explain various memory management techniques and concept of thrashing
		CO4	Recognize file system interface, protection and security mechanisms
CSCS243	Client/Server Computing	CO1	Understand the concept of client-server development and learn problem solving skills through design scenarios for network environment.
		CO2	To Define the underlying concepts in client server development using common access databases
		CO3	To understand Distributed computing environment, RMI and DCOM architecture,& CORBA.
		CO4	The objective of the course is to understand various WAN technologies and related Protocols
CSCS247	Principles of Programming languages	CO1	To introduce notations to describe syntax and semantics of programming languages
		CO2	To introduce the concepts of ADT and object oriented programming for large scale software development.
		CO3	To analyze and explain behavior of simple programs in imperative languages using concepts

		CO4	To introduce the concepts of concurrency control and exception handling.
CSCS249	Computer Graphics	CO1	Gain knowledge about graphics hardware devices and software used.
	, ,	CO2	Understand the two dimensional graphics and their transformations
		CO3	Understand the three dimensional graphics and their transformations
		CO4	Be familiar with understand clipping technique
CSCS237	Object Oriented Programming Lab	CO1	To learn the basic concepts of OOP
	2.00	CO2	Ability to create packages and interfaces.
			Ability to implement error handling techniques
		CO3	using exception handling.
		CO4	Skill to write Java application programs using OOP principles and proper program structuring.
CSCS301	Programming with C++	CO1	To learn the basics of C++ programming languages.
		CO2	To learn concepts of object oriented programming in developing solutions to
		CO2	problems demonstrating usage of data abstraction, encapsulation, and inheritance
		CO3	To implement the program using the concepts
		CO3	Polymorphism, dynamic binding.
		CO4	Understand and Apply object oriented programming concepts in problem solving through C++.
CSCS351	Web Technology	CO1	Apply the concepts, principles and methods of Web engineering
		CO2	have a sufficient theoretical knowledge and analytical skills to develop Web applications;
		CO3	Apply the described concepts, principles and methods to development of complex Web applications
		CO4	Design and develop website using current Web technologies
CSCS353	Data Mining	CO1	To develop programs and methods for data Mining applications.
		CO2	To solve problems for multi0core or distributed, concurrent/Parallel environment
		CO3	To understand the Data Mining and their techniques to solve the real time problems.
		CO4	To develop ability to design various algorithms based on data mining tools
CSCS356	Systems Software	CO1	Distinguish between Operating Systems software and Application Systems software
		CO2	Identify Desktop and Windows features
		CO3	Describe the "boot" process.
		CO4	Use Utility programs.
CSCS357	Artificial Intelligence	CO1	To study the concepts of Artificial Intelligence and Methods of solving problems using Artificial Intelligence
		CO2	To understand the basic techniques of knowledge representation and their use and components of an intelligent agent
		CO3	To be able to implement basic decision making algorithms, including search based and problem solving techniques, and first-order logic.
		CO4	To know the basic issues in machine learning
CSCS259	Web Technology Lab	CO1	To inculcate knowledge of web technological concepts and functioning of internet
		CO2	To learn and program features of web programming languages.
		CO3	To understand the major components of internet and associated protocols.
		CO4	To design an innovative application for web.
CSCS402	PROLOG Programming	CO1	To learn how to create programs based on artificial intelligence
		CO2	write PROLOG programs to solve a variety of problems
		CO3	develop and test Prolog programs using a suitable Prolog interpreter
		CO4	use PROLOG as an effective AI programming tool
CSCS361	Microprocessors and	CO1	Understand the taxonomy of microprocessors and knowledge of contemporary
CSCSS01	Controllers	COI	microprocessors
		CO2	To understand the architectures and the instruction set of 8086 microprocessor
		CO3	To understand the architectures and the instruction set of 8051 microcontroller
		CO4	To learn interfacing of microprocessors and microcontrollers with various devices

CSCS362	PROJECT	CO1	An ability to use current techniques, skills, and tools necessary for computing practice.
		CO2	An ability to use current techniques, skills, and tools necessary for computing practice.
		CO3	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.

Department: M. A. SOCIAL WORK (MSW)

Programme Outcomes (POs):

- **PO1:** Students will apply the knowledge of the respective domain of knowledge and specialization to the solution of complex problems in professional, social and personal life.
- **PO2**: Develop a multidisciplinary perspective and contribute to the knowledge capital of the world in general and the country in particular.
- PO3: Acquire communication and presentation skills and become employable in the job market.
- **PO4:** Critically review research literature and pursue socially relevant research to solve problems with sustainable approach and create new knowledge in their respective domain
- **PO5**: Develop sensitivity for social issues and become proactive citizens.

Programme Specific Outcomes (PSOs):

- **PSO1:** Gain knowledge and acquire professional skills in Social Work methods of engaging with individuals, families, groups, communities and organizations.
- **PSO2:** Understand the dynamics of society and human behaviour and demonstrate ethical values of social work practice with diverse and vulnerable sections of the society to promote positive changes.
- **PSO3:** Acquire specialization based proficiency and translate suitably the Principles and Methods of Social Work in their respective settings.
- **PSO4:** Gain expertise to approach scientifically social issues and undertake sequential inquiry by adopting Social Work Research.
- **PSO5:** Engage in activities to promote the cause of social, economic, environmental Justice and Human Right Groom themselves as professional social workers and exhibit professional behaviour.

Course Outcomes

		F	FIRST SEMESTER
1.60***	T. 1977. 444	Laga	
MSW 411	MSW 411	CO1	To understand history and evolution of social Work profession, both in India and the West.
		CO2	To develop insights into the origin and Development of Ideologies and Approaches to social Change.
		CO3	To develop Skills to understand contemporary reality in its historical context.
MSW 412	INDIAN SOCIAL STRUCTURE AND SOCIAL PROBLEMS	CO1	Acquaint themselves with the basic concepts of Sociology like society, community, association, culture, social change, social stratification etc.
		CO2	Know the basic social institutions like family, marriage, kinship in a scientific way.
		CO3	Explain social change and the factors affecting social change. Realize the importance of cultural lag to understand social change.
		CO4	Learn about the Constitutional Provision for the protection of minorities and other weaker section in India.
		CO5	Learn about the Reservation Policy in India.
MSW 413	PSYCHOLOGY AND PERSONALITY DEVELOPMENT	CO1	To understand psychological concepts and its relevance to Social Work.
		CO2	To understand the basic concepts and processes in social psychology and its relevance to Social Work
		CO3	To understand determinants and processes of personality development.
		CO4	To understand social attitudes and psychosocial behaviour
		CO5	Describe how human development is the product of social, psychological, and biological factors.

MSW	SOCIAL CASE WORK	CO1	To understand the individual, family and their problems and the
414	AND COUNSELLING		social contextual factors affecting them.
		CO2	To understand Social Casework as a method of Social Work
			practice.
		CO3	To gain knowledge about the basic concepts, tools, techniques,
			processes and Skills of working with individuals.
		CO4	To develop an understanding of application of case works in
			diverse settings.
		CO5	To understand the nature and types of groups.
MSW	SOCIAL GROUP WORK	CO1	To understand Social Group Work as a method of Social Work
415			practice.
		CO2	To know the basic concepts, tools, techniques, processes and
			Skills of working with groups.
		CO3	To develop an understanding of process of group development
			and group dynamics.
		CO4	To develop an understanding of application of group works in
			diverse settings
		CO5	To work in agencies working in different types of areas of Social
			Work practice.
MSW 416	FIELD WORK & RURAL CAMP	CO1	To develop work plan in consultation with agency supervisor
		CO2	To develop capacity for observation and analysis of social
			realities.
		CO3	To practice the methods of working with individuals and groups
		CO4	To develop understanding of the needs, problems and
			Programmes for different target groups.

		S	ECOND SEMESTER
MSW 511	COMMUNITY ORGANISATION AND SOCIAL ACTION	CO1	To understand the fundamental concepts and components of community, community organization and social action
	SOCIAL ACTION	CO2	To understand the models of community organization and social action
		CO3	To understand the relationship of community organization and social action with other methods of social work.
		CO4	To understand various social movements in India
MSW 512	SOCIAL WORK RESEARCH AND	CO1	To gain understanding of nature and relevance of social science research and its application in the study of social phenomena.
	STATISTICS	CO2	To learn steps and process of formulation of research design and carry out the same
		CO3	To learn method of conducting a review of literature.
		CO4	To develop familiarity with qualitative and quantitative research methods.
		CO5	To learn how to prepare tools for collection of data. To learn process of data collection, organization, presentation, analysis and report Writing.
MSW	SOCIAL WELFARE	CO1	To understand the concept of population.
513	ADMINISTRATION	CO2	To develop skills for planning and implementing Family Planning and welfare programmes
		CO3	To study role of social workers in family welfare programmes and Environment Change.
MSW 514	DISASTER MANAGEMENT	CO1	Enable the learner to know and understand the nature and types o f disaster.
		CO2	Sensitize the learners for positive intervention in the process of r ehabilitation and resettlement, especially, in trauma care and mitigation.
		CO3	Create awareness about preparedness to cope with disaster at diff erent levels of

		CO4	Administration and thus, to encourage the youth to actively participate in disaster Management.
		CO5	Help the learner to acquire skills required during different phases of disaster Management
MSW 515	FIELD WORK	CO1	To work in agencies working in different types of areas of Social Work practice
		CO2	To develop work plan in consultation with agency supervisor
		CO3	To develop capacity for observation and analysis of social realities
		CO4	To practice the methods of working with individuals and groups
		CO5	To develop understanding of the needs, problems and Programmes for different target groups
		7	THIRD SEMESTER
MSW	HUMAN RIGHTS AND	CO1	Acquire information on the legal right of people
611	SOCIAL LEGISLATION	CO2	Gain insight into the problems faced by the people belonging to
	SPECIALISATION - I (Human Resource		different strata of society
	Management)	CO3	Develop an understanding of the process and problems of public interest litigation and
MSW 612	LABOUR WELFARE AND LABOUR	CO1	Develop the understanding of Labour Economics and its scope in industry
	LEGISLATION	CO2	Develop understanding about recent economic developments and industrial policies.
		CO3	Develop understanding about various labour problems and its im pact economic development
		CO4	Develop the knowledge of employee welfare: pre- independenc, post independence & its changin
		CO5	Know various governmental organizations working for employee welfare and Develop insight of employee welfare Programme and its relevance to work culture and productivity.

MSW 613	INDUSTRIAL RELATIONS	CO1	Develop knowledge and understanding about functions of Person nel Management
		CO2	Develop knowledge and understanding about functions of Perso nnel Management
		CO3	Develop a comprehensive understanding about trade unionism a nd industrial relations perspective
		CO4	Understand the intervention strategies and role of government
		CO5	Develop an understanding about the various factors influencing the industrial relations
MSW 614	HUMAN RESOURCE MANAGEMENT	CO1	Students will understand the - Functions and Role of HR Manager: Personnel, Welfare, clerical and legal roles
	SPECIALISATION II (Medical & Psychiatric Social Work)	CO2	Students will learn the Process of Job Analysis, Job Specification-Recruitments, Methods of recruitment and Placement process.
		CO3	Learn the process of training and career planning development and the methods of performance appraisal.
		CO4	Students are able to gain the knowledge of methods of wage and salary administration-methods of wage payments and employee benefit services etc.
		CO5	It will able to develop skills of personnel record and audit
MSW 615	HOSPITAL ADMINISTRATION	CO1	Know the meaning of hospital administration and evaluation of hospitals.
		CO2	Understand the planning process of hospital
		CO3	Develop insight in to staffing the hospital-selection and recruitment of staffs.
		CO4	Gain the knowledge of hospital budgeting
MSW 616	MEDICAL SOCIAL WORK	CO1	Develop insight in to the historical development of medical social work in the west and India.
		CO2	Describe the psycho social problems and role of medical social worker dealing patients.

		CO3	Practice the methods and Concept of Public health and preventive medicines.
		CO4	Understand the role of medical social worker in rehabilitating a physically handicapped patient.
MSW	MENTAL HEALTH	CO1	Describe the Concept of Mental Health and Mental Illness
617	SPECIALISATION III (Community Development)	CO2	Know the Classification of Mental Illness and formulation of psychological diagnosis
		CO3	Understand the concepts of Psychiatric Illness and mental handicap.
		CO4	Explain the policies and Legislations related to mental health in India.
MSW 618	RURAL COMMUNITY DEVELOPMENT	CO1	Develop an understanding about the Rural Economy and Rural C o-operation
		CO2	Develop an understanding about the Concept of Community D evelopment
		CO3	Help students to understand the Concept, & Various dimensions of governance.
		CO4	Help students to understand different Theories, approaches and s trategies of CommUnity development
MSW 619	URBAN COMMUNITY DEVELOPMENT	CO1	Develop knowledge and understanding about the Urban community development
		CO2	Help students to understand about the Development of urban are as and Urban Econom
		CO3	Develop an understanding about the Concept of Community Development
		CO4	Help students to understand different theories, approaches and st rategies of Community.
			Unity development and help students to understand the Concept, & Various dimensions of governance.

MSW 620	SOCIAL WORK WITH MARGINALIZED AND	CO1	Help Student to acquire knowledge of the status of women in India Society.
	WOMEN	CO2	Sensitize the student towards Gender Issues
		CO3	Help students to understand the need and process of women Em powerment.
		CO4	Help students to understand the need and process of women Em powerment.
MSW 621	FIELD WORK & STUDY	CO1	To develop work plan in consultation with agency supervisor
021	621 TOUR	CO2	To continue practicing the methods of working with individuals and groups
		CO3	To identify and utilize human, material and financial resources
		_	OURTH SEMESTER
MSW 711	SOCIAL WORK WITH PERSON WITH DISABILITIES	CO1	Understand the concept of disability and prevention of disabilities
	SPECIALISATION - I (Human Resource Management)	CO2	Develop insights in to the Contextual understanding of disability: historical and contemporary perspectives
		CO3	Gain knowledge of Multidisciplinary rehabilitation team and their roles
		CO4	Know the Impact of disability on persons with disability and their families
MSW 712	ORGANISATIONAL BEHAVIOUR	CO1	Develop an understanding about individual behavior, inter perso nal behavior in the organization
		CO2	Equip the HR professionals/students in managing human behavi or in organizations.
		CO3	Equip the students in facilitating a better understanding of the "s elf" and professional behavior in real life.
MSW 713	HUMAN RESOURCE DEVELOPMENT	CO1	Equip the students to know the concept and philosophy of HRD.
/13	SPECIALISATION II	CO2	Help the students to understand the performance appraisal and performance development.

	(Medical & Psychiatric social work)	CO3	Students will gain the knowledge of Career planning and Performance counseling:
		CO4	Students will develop insight in to the conceptual framework for training.
MSW 714	PSYCHIATRIC SOCIAL WORK PRACTICE	CO1	Develop insights in to the concept of psychiatric social work and its Historical development in India and abroad.
		CO2	Students can able to describe the Therapeutic Interventions in psychiatric illness and different types of therapy.
		CO3	Students can practice the Theoretical framework for Individual Psychotherapy and Counselling
		CO4	Equip the students to develop skills of Rehabilitation of Psychiatric patients:
MSW 715	COUNSELLING THEORY AND PRACTICE	CO1	Understand Concept and Process of Counselling and provide insights on Special areas and issues related to Counselling.
	SPECIALISATION III (Community Development)	CO2	Provide insights on Special areas and issues related to Counselling and Inculcate helping and guidance skills among the trainees.
		CO3	Sensitize the Students to the ethics of Counselling
		CO4	Understand the Role, responsibilities and functions of Counselor
MSW 716	PRA IN RURAL AND URBAN INTERVENTION	CO1	To experience group-living and develop attitudes conducive for effective team work
	INTERVENTION	CO2	Acquire Skills in planning, organizing, implementing the Rural areas
		CO3	To develop an understanding of group dynamics and power structures in a rural Community. To engage in research on various aspects related to the urban environment.
		CO4	To train students with a bias on practical/ experiential orientation based on scientific knowledge in advancement of sustainable urban development.
		CO5	To develop professional personnel in design, planning and management of urban areas. To establish a foundation for the graduate to practice, pursue and/or participate in professional activities/development in the urban milieu

MSW 717	ENVIRONMENT AND SOCIAL WORK	CO1	Develop the knowledge of environment and its Theoretical approaches and impacts of environment on society
	INTERVENTION	CO2	Understand the Policy related to Natural Resources.
		CO3	Students will develop insights in to Gender and environment, Environmental movement, Social Work Intervention.
MSW	FIELD WORK	CO1	To develop work plan in consultation with agency supervisor
718		CO2	To continue practicing the methods of working with individuals and groups.
		CO3	To identify and utilize human, material and financial resources.
		CO4	To develop process-oriented skills of working with individuals, families and groups with special reference to social support system.
MSW	PROJECT WORK	CO1	To develop ability to initiate and conduct research
719		CO2	To develop research Skills of identifying and selecting a research area and preparing research proposal
		CO3	To develop skills of doing literature review and steps of research methodology
		CO4	To be familiarize with the process of data analysis and report writing
		CO5	To be familiarize with the process of data analysis and report writing.
MSW 720	BLOCK PLACEMENT	CO1	Enables learners to integrate learning and generate newer learning by participating in the intervention process over a period of 6 weeks continuously, in a specific agency.
		CO2	It requires a great deal of commitment and initiative and are recommended for students who have demonstrated exceptional performance in the social work program and have significant experience in a work environment.

Department: PUBLIC ADMINISTRATION (M. A.)

Programme Outcomes (POs):

- **PO1:** Provide students with learning experiences that develop broad knowledge and understanding of key concepts of Public Administration and equip them with advanced knowledge and understanding for analysing and performing the tasks concerning public affairs.
- **PO2:** Develop students' ability to apply the acquired knowledge and skills to the solution of specific theoretical and applied problems in Public Administration settings.
- **PO3:** Develop abilities in students to come up with innovative prescriptions/solutions for the benefit of society, by diligence, leadership, team work and lifelong learning.
- **PO4:** Demonstrate critical thinking, research, and communication skills as applied to the public and private sectors.
- **PO5:** Explain the cross-cultural context of public and private institutions operating in a global.
- **PO6:** Manage diversity issues within an organizational framework.
- **PO7:** Identify major issues in today's public and private institutions.
- **PO8:** Demonstrate the integrative knowledge, skills, and ethics necessary for responsible Administrative, management and leadership positions.
- **PO9:** Demonstrate the management, legal, ethical, and behavioral skills for effective job performance and career mobility.

Programme Specific Outcomes (PSOs):

- **PSO1:** Understand the Evolution of Public Administration Theories, Approaches, different levels of Administration and functions of Government Machinery.
- PSO2: Increase knowledge of the Classical, Neo-Classical and Motivational Theories with Indian
- **PSO3:** Analyse the New Public Management concept on Non-Governmental Organisation and Human Resource Management.

PSO4: Understand the Evolution of Development Administration Principles through E-Governance in Financial, Police, Social Welfare & Labour Welfare Administration.

PSO5: Understand the Principles of Political Science and Compare the Asian Political System

PSO6: Explain the Research and analytical skills, including the ability to think critically; to construct logical arguments; to collect, analyze, and interpret evidence and data; and to formulate reasoned conclusions.

Course Outcomes

FIRST SEMESTER				
MPAD 111	Public Administration	CO1	Explain meaning, nature and scope of Public Administration.	
111		CO2	Illustrate the strategies and techniques of organizational development and discuss various approaches of Public Administration.	
		CO3	Understand the contemporary administrative theories of Organization.	
		CO4	Describe Good Governance and Citizen's Charter.	
		CO5	Discuss concepts New Public Administration and new Public Management.	
MPAD 112	Public Personal Administration	CO1	To Appreciate the nature, scope and changing paradigms of Public Administration.	
		CO2	Grasp the administrative theories, concepts and principles to make sense of administrative Practices with emerging trends.	
		CO3	Understand the world of public administration from the public perspective and provide foundation for further studies in Public Administration.	
		CO4	Understand the synthesizing nature of knowledge of public administration from public Perspective.	

MPAD 113	Indian Administrative Systems	CO1	To understand the historical evolution and socio-economic, political, cultural and global context of Indian Administration
		CO2	Explain development administration process and Administrative Development in India and explain relationship between Bureaucracy and Development.
		CO3	To identify the transformative role of Indian Administration.
		CO4	To make out the multi-dimensionality of problems and processes of Indian Administration
		CO5	Acquaint with the functioning of the Indian administration, at central levels and the responses of these systems in addressing the concerns of the people.
MPAD 114	Financial Administration	CO1	Learn the financial administration of India
114		CO2	Understand the Role of Political and Administrative organizations in managing Public Finances
		CO3	Analyze the Budgetary process of union and state
		CO4	Interpret the Financial control of legislative and CAG
		CO5	Illustrate the Economic Relations between Center and state
MPAD 115	Environmental Administration	CO1	This course intends to aware the student about the basics of environment, Environmental administration, regulations, and policies in India
		CO2	To analyse the environmental degradation and India's concern on environmental protection.
		CO3	To examine the environmental policy on pre independence and post-independence.
		CO4	To aware about the NGO's, pollution control board and movement's role and responsibilities to protect environment.
		CO5	To know about environment policies and to evaluate Constitutional aspects of Environmental

			SEMESTER - II
MPAD	Organizational Behaviour	CO1	This course attempts to enable the students to understand the
121			complex nature of organization behavior, conflicts and
			challenges in the organizational setting.
		CO2	Study of the acceptable human behavior and hyphenating
			organization into the behavior- management specter provides
			enhanced application capacity to the students.
		CO3	study and application of knowledge about human behavior in
			organization as it relates to other system elements.
MPAD 122	HRM	CO1	Learn the concepts of Internal Security and Threats in India
122		CO2	Illustrate the relevant mechanism in dealing with internal security
			challenges
		CO3	Analyze the strategies followed by the government in dealing
			with security challenges
		CO4	Evaluate the prevailing structures and understand the need for
			reform
		CO5	Analyze the emerging issues in Law and order and internal
			security.
MPAD 123	Public Policy Analysis	CO1	Explain Meaning, nature, scope of Public Policy
		CO2	Discuss Role of Executive in public policy making
		CO3	Explain Objectives and Goals of Public Policy
		CO4	Discuss Policy Making Characteristics, and Categorize stages and
			techniques in Policy implementation
		CO5	Discuss Citizens Participation in Policy Implementation

MPAD	Comparative Public	CO1	Attempts to develop a better understanding of theoretical as well
124	Administration		as practical aspects of comparative public administration.
		CO2	Develop the knowledge of different approaches, administrative
			system of different national setting.
		CO3	Understand the emergence of Comparative Public Administration.
		CO4	Compare the administrative systems of developed and under developed countries.
		CO5	Interpret the linkage between development administration and sustainable development.
		. I	SEMESTER - III
MPAD 231	Police Administration	CO1	Explain basic concept of Police Administration
		CO2	Discuss Social problems and the laws implemented to solve them
		CO3	Describe concept of social welfare planning and role of voluntary organizations at The Centre, State and Local levels
		CO4	Discuss Administrative Structures in the society.
MPAD 232	Administrative Law	CO1	Acquire the basic knowledge about the concept of administrative law.
		CO2	Understand the theoretical perspective of ethical conducts adopted by the society.
		CO3	Learn the role and purpose of the establishing the tribunals at various levels.
		CO4	Illustrate the newly evolving laws in protection of Minorities, women, children and whistle blowers.

		CO5	Analyzing evaluation and monitoring methods of administrative and political bureaucracy duties
MPAD 233	SOCIAL WELFARE ADMINISTRATION	CO1	To understand the concept of population
		CO2	To develop skills for planning and implementing Family Planning and welfare programmes
		CO3	To study role of social workers in family welfare programmes and Environment Change.
MPAD 234	Research Methodology	CO1	Explain Meaning, Method of Research Methodology
234		CO2	Discuss concept of variables and hypotheses, their nature, importance and types
		CO3	Discuss sample and describe the steps involved in the process of sampling.
		CO4	Explain different tools of data collection.
		CO5	Discuss writing report for Public Administration project.
		CO4	Students would be able to perform financial planning, budgeting, controlling and auditing decisions in a healthcare organization.
		F	OURTH SEMESTER
MPAD 242	ICT in Public Administration	CO1	Acquaint the role of ICT in the domain of administration and governance
		CO2	Understand the concept of E-Governance, theories and various models
		CO3	Understand the policy framework and evolving institutional framework of e-governance
		CO4	Assess the capacity building measures required for digital intervention
		CO5	Analyze the role of e- governance in enhancing the efficiency and transparency
MPAD 243	Local Government in India	CO1	Gain basic knowledge about the concepts of local government development in India

		CO2	Exemplifying the fundamental structure of local governance in Indian context
		CO3	Explain the Structure and Functions of rural local government
		CO4	Assess the policies and programmes implemented by the governments at gross root level
		CO5	Analyse the importance of role of District Collector in Local Government Administration and Understand the working of Municipality
MPAD 241	Disaster Management	CO1	Learn the concepts and meaning of disaster & crises
241		CO2	Understanding the contemporary remedies of disaster management & preparedness
		CO3	Articulate the increased role of Risk Analysis, Resource management & Rehabilitation challenges.
		CO4	Analyse the role of Governance in disaster management and environment protection
		CO5	Understand the disaster management strategies at National, state and local level and assess the role of international conventions in achieving the SDGs
	Dissertation work	CO1	provide an opportunity to students to apply their research skill through review of literature and field studies on any of their chosen topics to produce a dissertation writing.
		CO2	students would be able to get a systematic knowledge on how to develop scientific writing
		CO5	Complex interrelations among domestic and international governmental, intergovernmental and nongovernmental actors.
		CO4	Interpret the cumulative role ethics in the public sector and cognizance of moral & social responsibility of public managers
		CO5	Analyze the shift of governance to citizen centric governance