

2.6 Students Performance and Learning Outcomes			
2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution			
Stated and Displayed in website of the institution(to provide the weblink)			
	Department of		
	Programme Outcome(POs)		
Upon Completion of the degree requirements, students will be able			
S.No.	PO Number	PO Statements	
1	PO1	தாய்மொழியின் சிறப்புகளை அறிதல்	
2	PO2	படைப்பாற்றலை வளர்த்தல்	
3	PO3	அடிப்படைத் திறன்களை அறிதல்	
4	PO4	சிந்தனை வளத்தை மேம்படுத்தல்	
5	PO5	மொழிப்பற்றை வளர்த்தல்	
Programme Specific Outcome(PSO)			
S.No.	POS Number	POS Statements	
1	PSO1	தாய்மொழியின் சிறப்புகளை திறனாய்வு செய்யும் ஆற்றல் பெறுதல்.	
2	PSO2	தமிழ்மொழியின் இலக்கணங்களை அறிதல்	
3	PSO3	சிந்தனையை வலுப்படுத்துதல்	
4	PSO4	ஆற்றல்களை வெளிக்கொணருதல்	
5	PSO5	சமூகப் பண்பாட்டு மரபினை அறிதல்	
DR.R.K.Shanmugham College of Arts and Science			
Dept of Tamil (BA TAMIL)			
Semster	Course	TitleThe Course	Course Outcome

	Core-1	இக்கால இலக்கியம்-1	<ul style="list-style-type: none"> □ புதுக்கவிதை, புதினம், உரைநடை, சிறுகதை ஆகியவற்றை படைக்கும் ஆற்றலை வளர்ப்பதையும், இக்கால இலக்கியங்களின் சிறப்பை அறிந்து போற்ற வேண்டும் என்பதனையும் நோக்கமாகக் கொண்டுள்ளது. □ ஏடுகளிலும் ஓலைகளிலும் தவழ்ந்த இலக்கியம் புதிய மறுமலர்ச்சி அடைந்து கவிதை நடையிலிருந்து உரைநடை, நாடகம், புதினம், சிறுகதை என இக்கால இலக்கியமாக மலர்ந்தது. □ படைப்பாற்றலில் சிறந்து விளங்குவதற்கும், இக்கால இலக்கியங்கள் துணை புரிகின்றன. கலைஆர்வத்தை தூண்டுவதோடு கலைஞர்களையும் உருவாக்குகிறது
1	Core-2	நன்னூல் - எழுத்ததிகாரம்	<ul style="list-style-type: none"> □ மொழியில் நற்புலமை அடையவும், இலக்கியத்தில் நல்ல பயிற்சியடையவும், மொழி மரபு பிறழாமல் பிழையின்றி எழுதவும் இலக்கணப் புலமை மிகவும் அவசியமான ஒன்றாகும். □ பழமையும் முழுமையும் கொண்ட தொல்காப்பியத்தை பின்பற்றி எழுந்த நூல்களுள் குறிபிடத்தகுந்த இடத்தைப் பெற்றிருப்பது நன்னூல். □ கி. பி. முதல் நூற்றாண்டு முதல் கி. பி. 11 ஆம் நூற்றாண்டு வரையிலான 1200 ஆண்டுகால மொழி வளர்ச்சியை அறிவதற்கு நன்னூல் பெரிதும் பயன்படுகிறது. □ இடைக்காலத்தில் மொழியில் ஏற்பட்ட மாற்றங்களை அறிய நன்னூல் உதவுகின்றது. எழுத்துகளின் இலக்கணத்தைக் கூறுகின்ற பல இயல்களைக் கொண்டுள்ளதால் இது எழுத்ததிகாரம் எனப் பெயர் பெற்றது.

Allied -1	தமிழக வரலாறும் பண்பாடும்-1	<p>☐ தமிழக வரலாறு தமிழர்கள் ஈராயிரம் ஆண்டுகளாக வாழ்ந்து வந்த தமிழின பண்பாட்டுக் கூறுகள், ஆட்சி முறைகள், பழக்கவழக்கங்கள், வாழ்க்கை முறைகள் போன்றவற்றை உணர்த்துகிறது.</p> <p>☐ தமிழக வரலாற்றையும் மக்களின் பண்பாட்டையும் கற்பித்தலே இதன் நோக்கம் ஆகும்.</p> <p>☐ தமிழக வரலாற்றுக்கான அடிப்படை ஆதாரங்கள், தமிழகத்தின் இயற்கை அமைப்புகள், வரலாற்றுக் காலத்துக்கு முந்திய தமிழகம், சிந்துவெளி, அகழ்வாராய்ச்சி, பண்டைத்தமிழரின் அயல்நாட்டுத் தொடர்புகள் என அனைத்தையும் தமிழக வரலாறு காட்டுகிறது.</p>
Core-3	இக்கால இலக்கியம்-2	<p>☑ இலக்கியப் பற்றினை ஏற்படுத்துவதோடு கருத்துணர் ஆற்றல், சுவையுணர் ஆற்றல், கற்பனை ஆற்றல், ஓசைநயம், ஒலிநயம் அறிதல், சொற்சுவை பொருட்சுவை அறிதல் போன்றவற்றையும் மேம்படுத்துகிறது.</p> <p>☑ கற்பனைத் திறனை வளப்படுத்திக் கொள்ளவும், படைப்புத் திறனை மேம்படுத்துவதற்கும் துணை நிற்கின்றன. ☑ மக்கள் பண்பாட்டினை பழக்கவழக்கங்களை நன்கறியச் செய்கின்றன. சமூக பாரம்பரியங்களை அறிந்து கொள்ளவும் சமுதாய நிகழ்வுகளை அறிந்திடவும் உதவுகின்றன.</p>
II Core-4	நன்னூல்- சொல்லதிகாரம்	<p>☑ எழுத்துக்களால் அமைவது சொல். அச்சொல் பற்றிய இலக்கணங்களை விரிவாகக் கூறுவதால் சொல்லதிகாரம் எனப்பட்டது. சொற்களைப் பற்றிய பல இயல்களின் தொகுதியே சொல்லதிகாரம்.</p> <p>☑ பெயரியல், வினையியல், பொதுவியல், இடையியல், உரியியல் என ஐந்து இயல்களையும் உடையது.</p> <p>☑ மொழி மரபை பாதுகாக்கவும், செய்யுள் மரபு அறிந்து இயற்றவும் புதிய மரபினை அமைக்கவும் இலக்கணமே துணைசெய்கின்றது.</p>

Allied -2	தமிழகவரலாறும் பண்பாடும்-2	<p>❑ வரலாற்றையும் மக்களுடைய வரலாற்றையும் அறிந்து கொள்வதற்கு பாடமாக வைக்கப் பட்டுள்ளது.</p> <p>❑ தமிழர் பண்பாட்டு வரலாறு மிகப்பழமையுடையது. நீண்ட நெடிய வரலாற்றுப் பெருமையுடையது. நாம் வாழும் நாட்டையும் நாட்டு மக்களின்</p> <p>❑ பண்பினையும் கலாச்சாரம் மற்றும் பண்பாட்டுச் சிறப்புகளையும், வளத்தையும் நாகரிகத்தையும் அறிந்து போற்றி புகழ் சேர்ப்போம்.</p>
Core-5	இலக்கியம் 3 சமயப்பாடல்களும் சிற்றிலக்கியங்களும்	<p>❑ தமிழ் இலக்கிய வரலாற்றிலும் அரசியல் வரலாற்றிலும் இருண்ட காலம் என்று அழைக்கப்படுகின்ற (கி. பி. 250-500) காலப்பகுதியின் பின்னர் தமிழக அரசியல், சமூக, இலக்கிய வாழ்வில் புதிய மறுமலர்ச்சியை ஏற்படுத்தியவை சமய இலக்கியங்களே ஆகும்.</p> <p>❑ சமயப்பாடல்கள் தமிழ் இலக்கிய வரலாற்றில் முக்கியத்துவம் பெற்று விளங்கியதை இதன்மூலம் அறியமுடிகிறது. பக்தி இலக்கிய காலத்தில் தமிழக அரசியல், சமூகம், இலக்கியம் ஆகியவற்றில் ஏற்பட்ட மாற்றங்களை அறிந்து கொள்ள உதவுகிறது.</p> <p>❑ மக்களை அறநெறிப்படுத்தி அச்சமூகத்தை மேம்படுத்துவதற்குப் பக்தி நெறியை பாடல்கள் வாயிலாக உருவாக்கியமையே இதன் பயனாக அமைகிறது.</p>
Core-6	இலக்கணம்-3 யாப்பருங்கலக்காரிகை	<p>❑ யாப்பருங்கலம் என்னும் நூலுக்குத் துணை (சார்பு) நூலாக எழுதப்பட்டதே யாப்பருங்கலக் காரிகை ஆகும். யாப்புப் பற்றிய விதிகளை கட்டளைக் கலித்துறையால் எடுத்துரைப்பதால் இந்நூல் பாவகையால் இப்பெயர் பெற்றுள்ளது.</p> <p>❑ உறுப்பியல், செய்யுளியல், ஒழிபியல் என்னும் மூன்று இயல்களையும் 44 காரிகைகளையும் கொண்டுள்ளது.</p> <p>❑ யாப்பிலக்கணத்தின் சிறப்புக் கூறுகளை விவரித்து தெளிவுற பயிற்றுதலையே நோக்கமாகக் கொண்டுள்ளது. யாப்பிலக்கணத்தை முழுமையாகக் கற்று செய்யுள்கள் பல இயற்றுதல் யாப்பிலக்கணத்தின் பயனாகும்.</p>

Allied -3	தமிழ் இலக்கிய வரலாறு - I	<p>தமிழரின் தொன்மை, வரலாறு, பண்பாடு மற்றும் கலை இலக்கியம் ஆகியவற்றை அறிந்து பெருமிதம் கொள்ள வைக்கிறது இலக்கிய வரலாறு.</p> <p>தமிழ் இலக்கிய வரலாற்று பெருமிதத்தையும், பண்பாட்டு வளத்தின் சிறப்பையும் அறிந்து கொள்வதற்காகவே தமிழ் இலக்கிய வரலாறு பயிற்றுவிக்கப்படுகிறது.</p> <p>வாழ்க்கைக்குத் தேவையான உயிர்ப்பும் உணர்வும் தமிழ்மொழியில் உள்ளது. தன் இனத்திற்கு இலக்கியத்தின் வாழ்க்கைப் பாதையை காட்டுவதையே தமிழ் இலக்கிய வரலாறு நோக்கமாகக் கொண்டுள்ளது.</p>
skill-1	பயன்பாட்டுத் தமிழ்	<p>மனித மொழியானது இயற்கையான மொழியாகும். பல்லாயிரம் ஆண்டுகளாக வளர்ச்சி பெற்று வரும் ஒரு கலையாக உள்ளது. மக்களைச் சென்றடையும் செய்தி ஊடகங்களில் மொழியின் பயன்பாடு குறித்து விளக்குவதை பயன்பாட்டுத் தமிழ் கூறுகிறது.</p> <p>மொழி எவ்வாறு பயன்படுகிறது என்பதனை கற்பித்தலே பயன்பாட்டுத் தமிழின் நோக்கமாக அமைகிறது.</p> <p>பயன்பாட்டுத் தமிழ் கற்போர் பகுதி நேர வேலைக்கும் தயாராக முடிகின்றது. பல்துறை வேலை வாய்ப்புகளை ஏற்படுத்திக் கொடுப்பதையே இதன் பயனாகக் கொள்கிறது.</p>
Core-7	இலக்கியம்-4 காப்பியங்கள்	<p>பழந்தமிழ் நாட்டில் ஆன்மீகக் கொள்கைகள் வலிமையும், செழுமையும் தெளிவும் பெற்று விளங்கின. அவற்றைப் பற்றிய சிந்தனைகளை செறிவுடனும், தெளிவுடனும் சமுதாய மேம்பாட்டை வலியுறுத்தவும் காப்பியங்கள் இயற்றப்பட்டன.</p> <p>காப்பியங்கள் சமத்துவ நல்லுறவைக் காட்டுகின்றன.</p> <p>சமயம் அரசியலோடு தொடர்பு கொள்ளவில்லை என்பதனையும், சமயம் அறத்தோடும் உயர்ந்த பண்புகளோடும் தொடர்பு கொண்டவை என்றும் வெளிப்படுத்துகிறது.</p>

IV

Core-8	இலக்கணம்-4 தண்டியலங்காரம்	<p>தமிழ்மொழியின் இலக்கணத்தை விளக்கும் வகையில் அமைந்த அணியிலக்கணத்தைக் கூறும் நூல் தண்டியலங்காரம்.</p> <p>தனக்கென பலவகைச் சிறப்புக்களை உடையது. ஐந்தாகப் பகுக்கப்பட்ட தமிழ் இலக்கணத்துள் கற்றோரால் மிகவும் போற்றப்படத்தக்க வகையில் விளங்குவது தண்டியலங்காரம்.</p> <p>கல்வியை எவ்வாறு கற்க வேண்டும் என்பதனையும் இலக்கணப் பாடம் விளங்குகிறது. தாய்மொழியாம் தமிழ்மொழியின் சிறப்பியல்புகளை அறிந்து பயனடையவும், மொழியறிவினை மேம்படுத்திக் கொள்ளவும் பயன்படுகின்றது.</p>
Allied -4	தமிழ் இலக்கிய வரலாறு - 2	<p>இலக்கியத்தைப் புரிதல்-புரியவைத்தல் ஆகிய நோக்கத்தை இலக்காகக் கொண்டு, சங்கம் தொடங்கி இன்றைய இணையம் வரை அறிந்து கொள்ள உதவுகிறது.</p> <p>காலத்திற்கேற்ப புதுப்பொலிவுடன் புதுப்புதுக் கருத்துக்களைப் புதிய துறைகளை உள்ளடக்கி தமிழ் இலக்கியத்தின் வரலாறுகளை வரிசைப்படுத்தி முழுமையாகத் தருவது தான் இலக்கிய வரலாற்றின் சிறப்பாகும்.</p> <p>மக்கள் வாழ்க்கையில் இருந்து தோன்றுவது தான் இலக்கியம் அத்தகைய இலக்கியங்களை பற்றி தமிழ் இலக்கிய வரலாறு விளக்குகின்றது.</p>

<p>skill-2</p>	<p>படைப்பிலக்கியம் மொழிபெயர்ப்பும்</p>	<p>படைப்பிலக்கியம், கவிதை, சிறுகதை, நாடகம் போன்றவற்றை எழுதுவதற்கு பயிற்சியளித்தலையே நோக்கமாகக் கொண்டுள்ளது.</p> <p>கணினியின் பயன்பாடு புகுத்தப்பட்ட பிறகு அறிவியல் தொழில்நுட்பக் கருவிகளும், மொழிபெயர்ப்பு வளர்ச்சியில் வேகத்தையும் வீச்சையும் உருவாக்கி வருகின்றன.</p> <p>சிறந்த பயிற்சியினைத் தந்து படைப்புகளை உருவாக்கும் திறனை மேம்படுத்தி, மொழிபெயர்ப்புக் கலையை கற்றுத்தந்து கற்போரின் செயலாக்கத்திறனை ஊக்குவித்து அறிவுத்திறனைச் சிறக்கச் செய்து படிப்பதோடு படைப்பையும் உருவாக்கி பயன் பெறவேண்டும் என்று படைப்பிலக்கியம் அறிவுறுத்துகிறது.</p>
<p>Core-9</p>	<p>சங்க இலக்கியம் (அகம்)</p>	<p>உலக இலக்கியங்களில் தனிச்சிறப்பு வாய்ந்தது தமிழ் மொழியின் சங்க இலக்கியங்கள் ஆகும். சங்க இலக்கியங்களில் அமைந்த அகத்துறைப் பாக்கள் உலகப் பேரிலக்கியங்களோடு ஒப்பிடப்படுகிறது.</p> <p>சங்க இலக்கியங்கள் காலத்தைக் கடந்து இன்றும் கருத்துக் கருவூலமாகவும், கற்பனைக் களஞ்சியமாகவும் திகழ்கின்றன.</p> <p>சங்க இலக்கியம் தமிழர்தம் சொத்து. தமிழரின் ஒளி படைத்த வாழ்வை உலகுக்கு உணர்த்திக் கொண்டே இருக்கும் கருத்துப் பேழையாக இருப்பதனையே இதன் பயனாகக் கொள்ளலாம்.</p>

<p>Core-10</p>	<p>இலக்கணம் - 5 (அகம்)</p>	<p>தலைவன் தலைவியின் அகவாழ்க்கையைக் கதைப்போக்கில் நம்பியகப்பொருள் கூறுகிறது. தலைவன்-தலைவியின் இன்பத்தைப் பற்றி பேசுகின்ற இல்லற நெறியாகும்.</p> <p>பிறருக்கு எடுத்துக்கூற முடியாததால் தாமே உணர்ந்து மகிழ்த்தக்கதாய் அமைவது அகப்பொருள். உயிர்களின் வாழ்க்கைக்கு அகவாழ்க்கையே அடிப்படையாக உள்ளது. தமிழரின் அக வாழ்க்கைக்கு இலக்கணம் கூறுகின்றது.</p> <p>தமிழர் தம் வாழ்க்கை முறையை வெளிப்படுத்துகிறது. இயற்கையோடு இணைந்த வாழ்க்கைத் திறனையும் இலக்கிய மரபையும் அறிந்து கொள்ளச் செய்வதே இதன் பயனாக இருக்கிறது.</p>
<p>Core-11</p>	<p>தமிழ் மொழி வரலாறு</p>	<p>காலந்தோறும் மொழியில் ஏற்படும் மாற்றத்தையும் வளர்ச்சியையும் மொழி வரலாறு என்கிறோம். வரலாற்றின் பல காலகட்டங்களில் தமிழ்மொழியில் நேரிட்ட மாற்றங்களையும் வளர்ச்சிகளையும் தெரிந்து கொள்ளும் வரலாறாகத் தமிழ் மொழி வரலாறு அமைந்துள்ளது.</p> <p>பழங்காலம் முதல் இக்காலம் வரை தமிழ் ஒலி வடிவ, வரி வடிவ சொற்பொருள் மாற்றங்களை அறிவித்தலையே தமிழ் மொழி வரலாறு நோக்கமாகக் கொண்டுள்ளது.</p> <p>உலகின் மூத்த மொழியாக விளங்குகின்ற தமிழ்மொழியின் பழமை, பெருமை, எழுத்து வரி வடிவங்கள், காலந்தோறும் ஏற்பட்ட மாற்றங்கள் ஆகியவற்றை அறியச் செய்தலே இதன் பயனாக உள்ளது.</p>

Core-12	இலக்கியத்திறனாய்வு	<p>இலக்கியத்தின் மீது அல்லது இலக்கியம் பற்றி எழுதுவது திறனாய்வு. இலக்கியத்தை மேலும் படிப்பதற்கும் விளங்கிக் கொள்வதற்கும் தூண்டுகோலாக அமைய வேண்டும். இதுவே திறனாய்வின் அடிப்படை நோக்கமாகும்.</p> <p>இலக்கியத் திறனாய்வியல் மூலமாக பல்வேறு இலக்கியங்களை குறித்து அறிந்து கொள்வதையும், திறனாய்வுக் குறித்த அறிவை மேம்படுத்துவதையும் நோக்கமாகக் கொண்டுள்ளது.</p> <p>இலக்கியத்தைப் படிக்கும் வாசகன் படைப்பாளனாக மாறுவதற்கும் ஆய்வுநோக்கத்தோடு செயல்படுவதற்கு திறனாய்வு பயன்படுகிறது.</p>
Elective -1	நாட்டுப்புறவியல்	<p>வாழையடி வாழையாக வாழ்ந்து வளர்ந்து வருகின்ற நாட்டுப்புறவியல் மக்களின் வாழ்வைப் படம்பிடித்துக் காட்டும் இயல் நாட்டுப்புறவியல் ஆகும். நாட்டுப்புறப் பாடல்கள் எளியவை; இனியவை, எழுதப்படாதவை, நாவில் பிறந்து செவிகளில் உலவிக் காற்றில் மிதந்து கருத்தில் இனிப்பவை ஆகும். நாட்டுப்புறவியல் குறித்த அறிவை மேம்படுத்துதலையும் நாட்டுப்புற மக்களின் நம்பிக்கைகளையும், கலைகளையும், இலக்கியங்களையும் அறிந்து கொள்ள வேண்டும் என்பதனையும் நோக்கமாகக் கொண்டுள்ளது.</p> <p>மனித சமுதாயத்தில் காணப்படும் அனைத்து வழக்காறுகளையும் நாட்டுப்புறவியல் அறிஞர் ஆராய்வதால் நாட்டுப்புறவியல் அனைத்துத் துறைகளோடும் தொடர்பு கொண்டுள்ளது. மக்களது உணர்ச்சிகள், சமய நம்பிக்கைகள், மனோபாவங்கள் போன்றவற்றை அறிந்திட உதவுகிறது.</p>

<p>skil-3</p>	<p>கல்வெட்டியல்</p>	<p>☐ கல்வெட்டு எழுத்துகளை அறிந்து, அவற்றின் பொருளை விளக்கும் கலையே கல்வெட்டியல் எனப்படுகிறது. வரலாற்றை அறிய உதவும் சான்றுகளில் முதல்நிலைச் சான்றாகக் கல்வெட்டு அமைந்துள்ளது.</p> <p>☐ கல்வெட்டுக்கள் குறித்த அறிவை மேம்படுத்துவதையே நோக்கமாகக் கொண்டு உள்ளது. கல்வெட்டுக்கள் பல ஆயிரம் ஆண்டுகள் நிலைத்திருக்கக் கூடியவை. பழங்கால வரலாற்று நிகழ்வுகளுக்கான சான்றுகளாகத் திகழ்கின்றன. தென்னிந்திய பண்பாட்டினை கல்வெட்டியல் சான்றுகள் அடிப்படையில் ஆய்வு செய்யவும் அகழ்வாராய்ச்சி புரியவும் வித்திடுகிறது.</p> <p>☐ கல்வெட்டுக்களை ஆய்வு செய்வதன் மூலம் எழுத்துகளின் படிமுறை வளர்ச்சிகளை அறிந்து பயனடைய முடிகிறது. வழக்கொழிந்த மறக்கப்பட்டுவிட்ட மொழிகள் பலவற்றையும் வாசித்து அறியவும், மீட்டுருவாக்கம் செய்யவும் உதவுகின்றன.</p>
<p>Core-13</p>	<p>சங்க இலக்கியம் (புறம்)</p>	<p>☐ சங்க இலக்கிய புறப்பாடல்கள் எட்டுத்தொகையில் புறநானூறும் பதிற்றுப்பத்தும் ஆகும். புறப்பாடல்கள் வீரம், கொடை, புகழ் முதலிய பண்புகளை எடுத்துக் காட்டி நாட்டு வாழ்வினை நலமுற எடுத்துக் கூறுகின்றன. பதிற்றுப்பத்து சேர அரசர்கள் பற்றிக் கூறுகிறது. சேரநாட்டு வரலாற்றை அறிய சான்றாக உள்ளது.</p> <p>☐ தமிழரின் சிறந்த சமுதாய வாழ்வு அரசியல் எழுச்சி, விருந்தோம்பல், உயர்ந்த ஒழுக்கம், உறுதியான கொள்கை, தன்னலமற்ற ஈதல், தலைநிமிர்ந்த வீரவாழ்வு, பரிசில் வாழ்க்கை, பகுத்துண்ணும் அறம் ஆகியவற்றை புறநானூறு எடுத்துரைக்கிறது. குறுநில மன்னர்களின் வரலாற்றை அறிவிக்கும் ஆவணமாகவும் திகழ்கிறது.</p> <p>☐ சங்க இலக்கியம் தமிழர்தம் சொத்து. தமிழரின் ஒளி படைத்த வாழ்வை உலகுக்கு உணர்த்திக் கொண்டே இருக்கும் கருத்துப் பேழையாக இருப்பதனையே இதன் பயனாகக் கொள்ளலாம்.</p>

Core-14	இலக்கணம் - 6 (புறம்)	<p>தமிழில் புற இலக்கணம் மட்டும் கூறும் ஒரே முழு நூல் புறப்பொருள் வெண்பாமாலை. புறப்பொருள் தமிழரின் புற வாழ்க்கைக்கு இலக்கணம் கூறுகின்றது. தொல்காப்பிய புறத்திணை இலக்கணத்தைப் பின்பற்றி புறப்பொருள் இலக்கணத்தை புறப்பொருள் வெண்பாமாலை கூறுகிறது.</p> <p>புறப்பொருள் தனிமனிதனின் கல்வி, ஈகை, புகழ், வீரம் போன்றவற்றைப் பற்றி விளக்குகிறது. எளிய மக்களும் புரிந்து கொள்ளும் வகையில் எழுதப்பட்டிருப்பது இந்நூலின் சிறப்பாகும்.</p> <p>பழந்தமிழ் நாட்டு போர், வீரம், கொடை, மக்கள்வாழ்வு முதலான செய்திகளை அறிந்து பயனடைய உதவுகிறது. தமிழரின் பண்பாட்டை, வீரத்தை, வாழ்க்கை முறையை புறப்பொருள் வழி உணர்தலே சிறப்பாகும்.</p>
Core-15	திராவிட மொழிகளின் ஒப்பிலக்கணம்	<p>திராவிட மொழிகள் அனைத்தும் ஒரு மொழியிலிருந்து தோன்றியவை. எல்லாத் திராவிட மொழிகளுக்கும் மூலமாக இருந்த மொழியினை மூலத் திராவிட மொழி அல்லது தொல் திராவிட மொழி என்று மொழியியலார் கூறுகின்றனர்.</p> <p>திராவிட மொழிகளின் சிறப்பியல்புகளையும் திராவிட மொழிகளின் இலக்கணங்களையும் கற்பித்தலையே நோக்கமாகக் கொண்டுள்ளது.</p> <p>மூலத்திராவிட மொழிகளுடன் நெருங்கிய தொடர்பு கொண்ட மொழி. இன்று பேச்சுவழக்கில் உள்ள மொழிகளில் பழங்காலத்திலேயே பண்பட்ட மொழி தமிழ் என்று அறிந்து கொள்வதற்கு திராவிட மொழிகளின் ஒப்பிலக்கணம் துணை செய்கிறது.</p>

Elective -2	இதழியல்	<p>☐ மக்களின் தகவல் தொடர்பு தேவைகளை சரிவர நிறைவேற்றுவதும் செய்திகளையும், கருத்துக்களையும் ஊடகங்கள் வாயிலாக மக்களுக்கு வழங்குவதும், செய்திகளைத் திரட்டுவதும், பரப்புவதுமே இதழியலின் பணியாகும்.</p> <p>☐ இதழியல் குறித்து கற்பித்தலையும் இதழ்கள் பற்றிய அறிவை மேம்படுத்துதலையும் நோக்கமாகக் கொண்டுள்ளது.</p> <p>☐ இந்திய இதழ்களின் வளர்ச்சி அநீதிகளை வெளிக்கொணர்வது, தவறுகளை சுட்டிக்காட்டுவது, நல்ல மதிப்புமிக்க ஆலோசனைகளை வழங்குவது, ஆதரவற்ற மக்களுக்கு உதவுவது என தனது பங்களிப்பை வெளிப்படுத்துகிறது.இதழியல் வளர்ச்சி போற்றப்படக்கூடிய அளவில் பலமடங்கு வளர்ந்துள்ளது. இளைஞர்களுக்கு வேலைவாய்ப்புகளை தந்து தொழிற்வாய்ப்பை பெருக்கும் துறையாகவும் பயனளிக்கிறது.</p>
Elective -3	சுற்றுலாவியல்	<p>☐ சுற்றுலா மனிதனுக்கு மகிழ்ச்சியையும் புத்துணர்ச்சியையும் அளிக்கிறது. சுற்றுலா ஒரு முக்கியமான தொழிற்சூழையாகவே மாறியுள்ளது. தமிழகத்தில் சுற்றுலாத் தலங்கள் தமிழ் நாகரிகத்தையும், வரலாற்றையும், கலை பண்பாட்டையும் அறிவிக்கும் செய்தி தொடர்பு கருவியாகவும், சின்னமாகவும் விளங்குகின்றன.</p> <p>☐ சுற்றுலாவியல் குறித்து அறிந்துகொள்ளவும், இந்தியாவின் சுற்றுலா வளர்ச்சியை தெரிந்து பயனடைய வேண்டும் என்பதனையும் நோக்கமாகக் கொண்டுள்ளது.</p> <p>☐ உலகமெங்கும் வளர்ந்து வரும் சுற்றுலாத்துறைக்கும், சுற்றுலாச்செல்ல ஏற்ற வகையிலும், பாரம்பரியச் சின்னங்கள் உடைய நாடாக இந்தியா திகழ்கிறது. சுற்றுலாத் துறையை மேம்படுத்த திட்டமிடுதல் மிகவும் அவசியமாகிறது. சமூக-பொருளாதார விளைவுகளை வைத்து ஆலோசிக்க வேண்டும். தேசியப் பொருளாதார வளர்ச்சிக்கு சுற்றுலா வித்திடுகிறது. அதிக அளவில் வேலை வாய்ப்பினை ஏற்படுத்துகிறது. சுற்றுலா மூலம் தொழில்களும், கைத் தொழில்களும் வளர்ச்சியடைகின்றன.</p>

skill-4	தகவல் தொடர்பியல்	<p>☐ மனிதனின் அடிப்படைத் தேவைகளில் ஒன்று தகவல் பரிமாற்றம். பேச்சு, எழுத்து, அச்சு, தொலைபேசி, வானொலி, தொலைக்காட்சி, கணினி என பல நுட்பமுறைகள் தகவல் பரிமாற்றத்திற்கு பயன்படுகின்றன.</p> <p>☐ தகவல் தொழில் நுட்பங்கள், கடிதங்கள், அச்சத்துறை, அறிவியல் கருவிகள் என்ற நிலையிலிருந்து கணினி, இணையம், மின்னஞ்சல் என்று அதிவேகமாக பரவிவருகின்றன. மக்கள் செய்தி ஊடகங்கள் உடனுக்குடன் தகவல்களை பரிமாறுகின்றன.</p> <p>☐ அரசியல், நாகரிக மாற்றங்கள் பண்பாட்டு செயல்கள் ஆகியவற்றை வெளிப்படுத்தவும் துணைநிற்கின்றன.</p>
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Dept of Tamil (MA TAMIL)

emste	Course	TitleThe Course	Course Outcome
I	Core-1	இக்கால இலக்கியம்	<p>X-ஐரோப்பியர் வருகைக்குப் பின்னர் அச்சு இயந்திரம், புதிய கல்விமுறை, செய்தித்தொடர்பு, திரைப்படம் முதலான புதிய இலக்கியப்படைப்புகள் ஆகியவற்றின் தாக்கத்தால் தமிழ் இலக்கிய வரலாற்றில் பல மாற்றங்கள் ஏற்பட்டன.</p> <p>X-புதிய தொடர்பு அமைப்புகள் புதிய கலைச்சொல் ஆக்கம் ஆகியவை இக்கால இலக்கிய வரலாற்றில் குறிப்பிடத்தக்க சிறப்பு அம்சங்கள் ஆகும். இக்கால பேச்சுத்தமிழும் இலக்கியத் தமிழும் தனித்தனி மொழிகளாக வேறுபட்டுள்ளன. பிறமொழிச் சொற்கள் அதிகமாக கலந்துள்ள வகையிலும் இலக்கியங்கள் படைக்கப்பட்டன. X-கலைத்திறத்தை அறியவும் உதவுவதோடு புதிய சிந்தனைகளைத் தனதாக்கிக் கொள்ளவும் சிறுகதை இலக்கியம் உதவுகிறது. தமிழ் சிறுகதைகள் உலகத்தரத்தோடு போட்டியிடக்கூடிய அளவிற்கு எல்லைகளை வளர்த்திருக்கிறது.</p>

	Core-2	அற இலக்கியம்	<p>X-ஓழுக்கம், அன்பு, விருந்தோம்பல், ஈகை போன்ற சமூகப் பண்புகள் மக்களிடத்து மேலோங்கின. நீதி நூல் இலக்கியம் தோன்றியது.”</p> <p>X-அறக்கருத்துக்களையும், நீதிக் கொள்கைகளையும், இம்மை-மறுமை வாழ்வியல் நெறிகளையும் சமயக் கோட்பாட்டுக் கூறுகளையும் கற்பித்தலையே நோக்கமாகக் கொண்டுள்ளது.</p> <p>X-தனி மனித அறம், விருந்தோம்பல் பண்பு, சான்றோர் நட்பு, வறியோர்க்கு உதவுதல் போன்ற பல நல்ல பண்புகளைபெற்றுக்கொள்ள நீதி இலக்கியம் உதவுகிறது.</p>
	Core-3	தொல்காப்பியம் - எழுத்ததிகாரம்	<p>X-தொல்காப்பியம் முழுமையையும் சிறப்பாக கற்பித்தலையே நோக்கமாகக் கொண்டுள்ளது. இலக்கண அறிவை பெற்றுக்கொள்ள தாய்மொழி மீதான பற்று மிகவும் அவசியமானதாகும்.</p> <p>X-தொல்காப்பியம் தமிழ் நூல்களுள் முதன்மையானதாகக் கருதப்படும் இலக்கண நூலாகும். தொல்காப்பியம் அக்கால இலக்கண நூற்கொள்கைகளை அறிந்து கொள்ளப் பயன்படுகிறது. தமிழரின் பண்டைப் பெருமையை பாராட்டுவதற்கும், போற்றுவதற்கும் உதவுகிறது.</p> <p>X-நெடுங்காலமாக இலக்கியப் பயிற்சியும் முயற்சியும் தமிழகத்தில் நிலவியது என்பதற்கு தொல்காப்பியம் சான்றாக உள்ளது. இலக்கண மரபிற்குச் சான்றாகத் தொல்காப்பியரின் தொல்காப்பியம் கருதப்படுகிறது.</p>
	Core-4	தமிழர் பண்பாட்டு வரலாறு	<p>சிந்து சமவெளி நாகரிகம் அறிதல் களப்பிரர் காலம் குறித்து அறிதல். பல்லவர் காலம் குறித்து அறிதல். தமிழரின் பண்பாட்டு கருவூலங்களை அறிதல்</p>

	Elective - 1	தொல்லியல்	<p>பழங்கால சிற்பங்கள், ஓவியங்கள் போன்றவற்றின் தொன்மைகளை அறியச் செய்தல்.</p> <p>சிற்பங்கள், கலைகள் போன்றவற்றை மாணவர்கள் அறியச் செய்தல்.</p> <p>தொல் பழங்கால மக்களின் வாழ்க்கைமுறையினையும் அவர்களின் புழங்கு பொருட்களின் தன்மையினையும் அறிந்துகொள்ளுதல்</p>
II	Core-5	காப்பியங்கள்	<p>X-காப்பியம் பெருங்காப்பியம் சிறுகாப்பியம் என இருவகைப்படும். அறம், பொருள், இன்பம், வீடு என்ற நாற்பொருளையும் கூறுவது பெருங்காப்பியம் எனப்படும். அறம், பொருள், இன்பம், வீடு எனும் நான்கில் ஒன்றோ பலவோ குறைந்து வருவது சிறுகாப்பியம் ஆகும்.</p> <p>X-சோழர் காலத்தில் தான் பெரும்பாலானக் காப்பியங்கள் தோன்றின. முதற் காப்பிய காலம், பிற்காப்பிய காலம் எனவும் பகுத்துக் கூறுவர். அன்று முதல் இன்று வரை காப்பியங்கள் என்ற வகைமை தமிழில் வளர்ந்து வருகிறது.</p> <p>X-சமயம் அரசியலோடு தொடர்பு கொள்ளவில்லை என்பதனையும், சமயம் அறத்தோடும் உயர்ந்த பண்புகளோடும் தொடர்பு கொண்டவை என்றும் வெளிப்படுத்துகிறது. எளிய மக்களின் துயரங்களைப் படைத்துக் காட்டி, அனைவரும் பயனடைய வேண்டும் என்ற சமுதாய நோக்கம் கருதியே காப்பியங்கள் படைக்கப்பட்டு பயன்தருகின்றன.</p>

	Core-6	பக்தி இலக்கியம்	<p>X-சங்கத்தமிழ் மரபினை, தமிழருக்கே உரிய அகமரபை சமய இலக்கியங்கள் மீண்டும் உயிர்ப்பித்து தந்தன. மேலும் புதிய புதிய இலக்கிய வடிவங்களைத் தமிழுக்கு அறிமுகம் செய்தன. பக்தி இலக்கியங்கள் தமிழ் இலக்கிய வரலாற்றில் தனிச்சிறப்பு பெற்றுத் திகழ்ந்தன. இதன் பயனாக சைவமும் வைணவமும் தலைத்தோங்கின. X-தமிழகத்தின் பண்டைய இலக்கிய சமய வாழ்க்கை முறைகளை உயிரூட்டி மறுமலர்ச்சியை ஏற்படுத்தியது சமய இலக்கியங்கள். பல்லவர் காலத்தில் சைவ, வைணவ சமயங்கள் புத்துயிர் பெற்றன. X-தமிழகத்தில் ஆழ்வார்கள் வைணவ சமயத்தினையும் நாயன்மார்கள் சைவ சமயத்தினையும் வளர்ப்பதற்காக பல்வேறு இலக்கியங்களை படைத்தனர். மக்களை அறநெறிப்படுத்தி அச்சமூகத்தை மேம்படுத்துவதற்குப் பக்தி நெறியை பாடல்கள் வாயிலாக உருவாக்கியமையே இதன் பயனாக அமைகிறது.</p>
	Core-7	தொல்காப்பியம் - சொல்லதிகாரம்	<p>X-தொல்காப்பியம் முழுமையையும் சிறப்பாக கற்பித்தலையே நோக்கமாகக் கொண்டுள்ளது. இலக்கண அறிவை பெற்றுக்கொள்ள தாய்மொழி மீதான பற்று மிகவும் அவசியமானதாகும். X-சொல்லதிகாரம் கிளவியாக்கம், வேற்றுமையியல், வேற்றுமை மயங்கியல், விளி மரபு, பெயரியல், வினையியல், இடையியல், உரியியல், எச்சவியல் போன்றவற்றை விவரிக்கிறது. இவ்வதிகாரம் 462 நூற்பாக்களை உடையது. X-தொல்காப்பியம் தமிழ் நூல்களுள் முதன்மையானதாகக் கருதப்படும் இலக்கண நூலாகும். தொல்காப்பியம் அக்கால இலக்கண நூற்கொள்கைகளை அறிந்து கொள்ளப் பயன்படுகிறது. தமிழரின் பண்டைப் பெருமையை பாராட்டுவதற்கும், போற்றுவதற்கும் உதவுகிறது. பெண்ணியம் குறித்த சொல்லாடல்களை அறிதல். பெண்கள்</p>
	Elective -1	பெண்ணியப் படைப்புகள்	<p>அன்றும் இன்றும் உள்ள சூழலை அறிதல். பெண்படைப்பாளர்களின் படைப்புகளை அறிதல்.</p>

III	Core-9	சுற்றிலக்கியம்	<p>X-அறம், பொருள், இன்பம், வீடு எனும் நான்கு உறுதிப்பொருட்களுள் ஏதேனும் ஒன்றைத் தருவதாக அமைவது சுற்றிலக்கியம். பாடப்படும் கடவுள் (அ) மன்னன் (அ) வள்ளல் ஆகியோரின் ஒரு சிறு கூறு மட்டுமே விளக்கப்பட்டிருக்கும்.</p> <p>X-சுற்றிலக்கியங்கள் அளவில் சிறியனவாக இருந்தாலும் நூற்பொருளிலும் உணர்த்தும் திறனிலும் பேரிலக்கியங்களுக்கு இணையாகக் கருதப்படுகின்றன. சுற்றிலக்கியங்களின் மூலமாக சமூகத்தின் செயல்பாடுகளை போக்குகளை அறிந்து தமிழ்மொழிக்கு புதிய வடிவம் கொடுத்து இலக்கிய வரலாற்றில் தனியிடம் பிடித்திருப்பதையே பயனாகக் கருதலாம்.</p> <p>X-சுற்றிலக்கியங்கள் தமிழ்மொழிக்கு ஆற்றியத் தொண்டினை அறிந்து கொள்ளவும், இலக்கியங்கள் வாழ்க்கையோடு தொடர்புடையவை மட்டுமல்ல அகம் சார்ந்தும் இருக்கின்றன என்பதனையும், தமிழோடு பக்தியும் வளர்ந்தது என்றும் அறிந்து கொள்ள துணைசெய்கின்றன.</p>
	Core-10	ஆராய்ச்சி நெறிமுறைகள்	<p>X-‘ஆய்தல்’ என்றால் ‘உள்ளதன் நுணுக்கம்’ எனப் பொருள் தருகிறார் தொல்காப்பியர். “எந்த ஒன்றிலும் அமைந்து இருக்கும் மேலோட்டமான பொருளைத் தாண்டி, ஆழத்தில் அடிப்படையாக அமைந்துள்ள பொதுவான உண்மைகளை அறிவியல் நெறிமுறைப்படி தேடி அடையும் முயற்சிதான் ஆய்வு” எனப் பொதுவாக வரையறுப்பர். X-ஆராய்ச்சி நெறிமுறைகளை கற்பித்தலையும் ஆய்வு நோக்கில் சிறந்த ஆராய்ச்சியாளர்களாக ஒவ்வொருவரையும் உருவாக்குதலையும் நோக்கமாகக் கொண்டுள்ளது. ஆய்வின் நோக்கம் மனிதர்களின் அறிவுத்தேடல் என்ற பெரிய போராட்டத்தில் தன்னாலான பங்களிப்பை செலுத்தி தான் வாழும் சமூகத்திற்கு நன்மை செய்வதாகும்,</p> <p>X-ஆராய்ச்சி நெறிமுறைகளால் நமக்கு கிடைக்கிற பயன்கள் பலவாகும். நமது உழைப்பு வீணாகாமல் காப்பாற்றப்படுகிறது. நெறிமுறைகளை பின்பற்றி ஆய்வு செய்யும் போது குறைந்த காலத்தில் நிறைந்த பயனைப் பெறமுடிகிறது. குறிப்பிட்ட காலத்திற்குள் குறிப்பிட்ட ஆய்வினைக் குறிப்பிட்ட நேரத்திற்குள் முடிக்க இந்த ஆராய்ச்சி நெறிமுறைகள் அடிப்படையாகத் தேவைப்படுகின்றன.</p>

	Core-11	தொல்காப்பியம் – பொருளதிகாரம்	<p>X-மொழிக்கு மட்டுமின்றி வாழ்க்கைக்கும் இலக்கணம் சொல்கிறது. எழுத்ததிகாரம், சொல்லதிகாரம் ஆகிய இரு பகுதிகளில் மொழிக்கு இலக்கணம் சொல்லப்பட்டுள்ளது. பொருளதிகாரம் என்ற பகுதியில் வாழ்க்கைக்கு (இலக்கியத்திற்கு) இலக்கணம் சொல்லப்பட்டுள்ளது.</p> <p>X- பொருளதிகாரம், அகத்திணையியல், புறத்திணையியல், களவியல், கற்பியல், பொருளியல், மெய்ப்பாட்டியல், உவமையியல், செய்யுளியல், மரபியல் ஆகியவற்றை விளக்குகிறது. இவ்வதிகாரம் 445 நூற்பாக்களை உடையது.</p> <p>X-தொல்காப்பியப் பொருளதிகாரம் வாழ்க்கையின் பொருளை, இலக்கியத்தின் பொருளை உணர்த்துகிறது. இது தமிழர்களின் இலக்கியத்திற்கும் பண்பாட்டிற்கும் வாழ்க்கை முறைக்கும் இலக்கணம் சொல்வதாக அமைந்துள்ளது.</p>
IV	Core-13	சங்க இலக்கியம்	<p>சங்ககாலத்தில் குறிப்பாக கடைச்சங்க காலத்தில் எழுந்த இலக்கியங்கள் ஆகும். சங்க இலக்கியத்தைப் பாட்டும் தொகையும் எனக்குறிப்பிடுபவர். ஈராயிரம் ஆண்டுகளுக்கு முன்னர் தமிழர் வாழ்ந்த வாழ்க்கையினை இவ்விலக்கியங்கள் விளக்கி நிற்கின்றன. சங்க இலக்கியங்கள் காலத்தைக் கடந்து இன்றும் கருத்துக் கருவூலமாகவும், கற்பனைக் களஞ்சியமாகவும் திகழ்கின்றன. தலைவன் தலைவியரின் அன்பு வாழ்க்கையின் இனிய காட்சிகளை அகப்பாடல்கள் எடுத்தியம்புகின்றன. அன்பு வாழ்க்கையின் அழியாத காட்சிகள் அனைத்தையும் எழிலோவியமாகக் காட்டுகின்றன. பண்டைத் தமிழரின் வாழ்வியல் நெறிகளையும் பண்பாட்டினையும் எடுத்துக்காட்டுகின்றன. இத்தகைய காரணங்களால் சங்க இலக்கியங்கள் காலத்தைக் கடந்து இன்றும் கருத்து கருவூலமாகவும், கற்பனைக் களஞ்சியமாகவும் திகழ்கின்றன. இவை உணர்த்தும் தமிழர்களின் விழுமியங்கள் வரலாற்றில் பொறிக்கப்பட வேண்டியவை ஆகும்.</p> <p>சங்க இலக்கியம் தமிழர்தம் சொத்து. தமிழரின் ஒளி படைத்த வாழ்வை உலகுக்கு உணர்த்திக் கொண்டே இருக்கும் கருத்துப் பேழையாக இருப்பதனையே இதன் பயனாகக் கொள்ளலாம்.</p>

	Core-14	அகராதியியல்	<p>ஒரு மொழியிலுள்ள சொற்கள் அனைத்தையும் அகர முதலிய எழுத்து வரிசையில் அமையும்படி ஒருசேரத்தொகுத்து அவற்றின் பொருள்களை அம்மொழியிலேயே விளக்கும் நூல் அகராதி எனப்படும். அகராதி என்னும் சொல்லின் ஆதி என்னும் சொல் வடமொழி என்பதால் பாவாணர் அகரமுதலி என்று அழைத்தார். சொல்லின் பொருளைத் தவிர, அதன் தோற்றம், ஆட்சி, அது வந்துள்ள நூல், இடம் முதலியவற்றையும் பெரிய அகராதிகளில் காணலாம். அகராதிக் கலையை அறிந்து கொள்வதற்காகவும், நிகண்டுகள் முதல் இக்கால அகராதி ஆய்வுக் கொள்கை வரை ஆய்வு நோக்கில் கற்பித்தலையே நோக்கமாகக் கொண்டுள்ளது. ஆங்கிலத்திலுள்ள NEW ENGLISH DICTIONARY-யின் முறைகளைத் தழுவி, ஒரு தமிழ்ப் பேரகராதி இயற்றுதல் தமிழ் அறிஞர்களின் தலையாயக் கடமையாகும்.</p>
	Core-15	தொல்காப்பியம் – பொருளதிகாரம்	<p>X-இன்று நமக்குக் கிடைக்கின்ற மிகப் பழமையான நூல் தொல்காப்பியம் ஆகும். இது இலக்கணமாக இருந்தாலும் இலக்கியமாகவும் கருதப்படக் கூடிய பெருமையை உடையது. எனவேதான் இதன் பழமையும் நூற்பொருளும் விளங்குமாறு இதற்குத் தொல்காப்பியம் எனப் பெயரிடப்பட்டுள்ளது.</p> <p>X-மொழிக்கு மட்டுமின்றி வாழ்க்கைக்கும் இலக்கணம் சொல்கிறது. எழுத்ததிகாரம், சொல்லதிகாரம் ஆகிய இரு பகுதிகளில் மொழிக்கு இலக்கணம் சொல்லப்பட்டுள்ளது. பொருளதிகாரம் என்ற பகுதியில் வாழ்க்கைக்கு (இலக்கியத்திற்கு) இலக்கணம் சொல்லப்பட்டுள்ளது.</p> <p>X-நெடுங்காலமாக இலக்கியப் பயிற்சியும் முயற்சியும் தமிழகத்தில் நிலவியது என்பதற்கு தொல்காப்பியம் சான்றாக உள்ளது. இலக்கண மரபிற்குச் சான்றாகத் தொல்காப்பியரின் தொல்காப்பியம் கருதப்படுகிறது.</p>
	core-16	ஆய்வேடு	<p>X-மாணவர்களின் ஆராய்ச்சி நிலையை வளர்ச்சி படுத்தும்.</p> <p>X-திறனாய்வாளன் மாணவன் மனதிற்குள் திறமை ஏற்படும்</p> <p>X-முனைவர்பட்ட ஆய்வாளர் படிப்பிற்கு மாணவர்கள் மனநிலை எளிதாக செல்லும் ஆய்வு மனப்போக்கு இயல்பாக ஏற்படும்</p>

	Elective -4	கணினியும் தமிழும்	தமிழ் மொழியில் பதிவாகியுள்ள கணினி செய்திகளை அறிந்துகொள்ளுதல். தமிழ் இலக்கியத்தோடு கணிப்பொறி இலக்கியங்களை ஒப்பிட்டு அறிந்து கொள்ளுதல். அடிப்படைக் கணினி அறிவினையும், தமிழ் வலைப்பூக்களையும் அறிந்துகொள்ளுதல். வலைப்பூவில் தமிழ் இலக்கியங்கள் பதிவிடல், தேடல் போன்றவற்றை அறிந்துகொள்ளுதல்
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2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of BA ENGLISH

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	An understanding English Literature
2	PO2	Providing english as a Global language
3	PO3	Developing language skill
4	PO4	learning LSRW

Programme Specific Outcome (PSO)

S.No.	POS Number	POS Statements
1	PSO1	Acquiring KNOWLEDGE about literature
2	PSO2	Ability to understand the literary genere
3	PSO3	Demonstrate effectively oral and written communication
4	PSO4	Demonstrate ability to linguastics and phonetics

Course Outcome (Cos)

Semester	Course	Title of the Course	Course Outcome
	Core I	Indian writing in english	CO1: To know about Indian writer and their poems, plays, and novels
			CO2: Accuring knowledge and skill about indian culture
			CO3 : To know about indian famous writers and their unique qualities

SEM 1			CO4: To know traditional concepts in Indian English
			CO5: To understand the value of myth of Indian culture
SEM 1	Core II	Advanced English Grammar	CO1 : To know the basic grammar and usage
			CO2 : To give knowledge of parts of speech,sentence pattern and articles
			CO3 : To knowthe way of usage grammar and rules. Teach about modern grammar
			CO4: To know rules and application in day today life
			CO5: The usage of important grammars in working days
Allied	Literary forms and terms		CO1: To provide the knoweledge of literary genere.
			CO2: Enable students to acquire and exhibit knowledge skills in literature.
			CO3 : To give insight on figures of speech and various types of genere.
			CO4: Find the difference between tragedy and comedy

I			CO5: To know different images used by poet in his poetry
	Core II	Environmental Studies	CO1 : Understand and evaluate the global scale of environmental problems CO2 : Communicate complex environmental information to both technical and non - technical audiences CO3 : Articulate interconnected and interdisciplinary nature of environment studies CO4; To know the value of ECO system of world CO5; To find impact of soil pollution
	Core I	Communicative English	CO1: To understand importance of listening CO2: To find different between formal and informal writing CO3 : To find difference between skimming and scanning CO4: To know the function of verb CO5: To understand the importance of speaking in working place
	Core I	Professional English	CO1: To the art of speaking CO2: To find different between formal and informal letter CO3; To understand the value of technical speaking CO4: To know the art of facial interview CO5: To understand the key points for writing poem

S.No.	PO Number	PO Statements
1	PO1	An understanding of american literature
2	PO2	Providing social history of england
3	PO3	To know about British literature and important writers

4	PO4	Providing british and american poem and theme
5	PO5	To know about American literature

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PSO1	Acquiring knoweldge of american writers and theirs poems
2	PSO2	Ability to analyze American culture and the life of people
3	PSO3	To know about british culture and people life
4	PSO4	To know about various revelutions and history of england
5	PSO5	To know the historical informtion of England

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
II	Core I	British Literature	CO1 : Explain the general purposes of British Literature and culture.
			CO2 : Explain the differences between British Literatre and American
			CO3 : Describe the main elements of British Poetry and culture.
			CO4: To find different between Indian British Literature
			CO5: To know aesthetic sense in British poetry
II	Core II	American Literature	CO1 : To know current literary trends in literature.
			CO3 : Accuring the knowledge of american culture and movement of
			CO4: To find different between American and British Literature
			CO5: To know aesthetic sense in American poetry
			CO1 : Students will understand the importance of
II		Value Education	CO2 : Students will gain deeper understanding about
			CO3 : Students will understand and start applying
			CO4:To know the value of moral story
			CO5: To find the value of in present society
			II
CO2 : Write precise briefs or reports and technical			
CO1 : To know about england history and people life			

II	Allied	Social History of England	CO2 : To provide revolution of England. To know about Victorian age and
			CO3 : To distinguish among various levels of Revolutions and life of
			CO4: To know the ruler of England
			CO5: To know different acts of England Parliament
II	Language	Communicative English	CO1: To understand importance of listening
			CO2: To find difference between formal and informal writing
			CO3 : To find difference between skimming and scanning
			CO4: To know the function of verb
	CO5: To understand the importance of speaking in working place		
II	Language	Professional English	CO1: To the art of speaking
			CO2: To find difference between formal and informal letter
			CO3; To understand the value of technical speaking
			CO4: To know the art of facial interview
			CO5: To understand the key points for writing poem

S.No.	PO Number	PO Statements
1	PO1	To expose the students to the neo-classical tradition in literature
2	PO2	to enable them to explore the remarkable changes in literary forms
3	PO3	To expose and train them literature
4	PO4	Literary expression of the particular period
5	PO5	To know the authors from British Literature

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring knowledge about Neo-classical age
2	PO2	Ability to analyze literary forms
3	PO3	Demonstrate the remarkable change of literature and literary forms
4	PO4	to know about neo-classical poems and novels
5	PO5	To know about Classical poems and novels

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
III	Core I	British Literature II	CO1 : students know about classical poems and them.
			CO2 : Analyze and evaluate prose amd poetry in neo-classical age
			CO3 : theme of neo-classical novels and poetry
			CO4: To know about the British Drama
			CO5: To know about the melodrama
	Core II	American Literature II	CO1 : Acquire conceptual knowledge of american writers and theirs works
			CO2 : Identify the american life of people and culture in prose and plays.
			CO3 : Describe the role of prose and poetry.
			CO4: To know about the American Drama
			CO5: To know about the American writing
III	Allied	History of English Literature I	CO1 : students knows various age of writers and their themes
			CO2 :Discuss the major works shakespeare and his plays
			CO3 : Discuss the life of Milton and Dryden
			CO4: To know about the chronolgical orders of England
			CO5: To know about the different ages in English Literature
	Elective	Soft Skill	CO1 : Understand the basic concepts of oral communication
			CO2 : To understand LSRW
			CO3 : Learn the basics of documentation and reading strategies
	Skill based subje	Internet its Application	CO1 : To know about word.word process and data entering.
			CO2 : To understand the email and web quest.
			CO3 : To understand the concept of searching engine

S.No.	PO Number	PO Statements
1	PO1	An understanding the roots of romantic literature
2	PO2	Providing outstanding writers of the period of romantic age
3	PO3	Developing Critical and Analytical Thinking of romantic writers
4	PO4	To know about romantic poems
5	PO5	To know the origin of English Language

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring knowledge of romantic poems
2	PO2	Ability to analyze various poems of romantic age
3	PO3	To know about romantic writers knowledge
4	PO4	the theme of romantic poems and love
4	PO4	the theme of restoration poems and love

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
IV	Core I	British Literature III	CO1 : To understand the romantic writers and works
			CO2 : To know about the life of romantic writers and the style
			CO3 : Identify, study, compare, and evaluate the prose and poetry in
			CO4: To know landscape of England
			CO5: to understand the theme of british poems
	Core II	History of English Language	CO1 : Acquire conceptual knowledge of origin of english language.
			CO2 : Identify the Ino-eropean family language
			CO3 : Develop the skill of Pronunciation ,spelling,and vocabulary.
			CO4: To find standard English Meaning
			CO5: To know the contribution os Shakespeare
IV	Allied	History of English Literature I	CO1 : To know about the age of Pope and Johanson
			CO2 : To know about the age of wordsworth and Tennyson
			CO4: To know the meaning of Romantic Age
	Skill for Employment		CO5: To find the drama from Restoration Age
			CO1 : Understanding the basic concepts of Interpersonal communication
			CO2 : To know about body language and facial language
IV	Non Major Elective	Internet it applications II	CO1 : To develop an understanding of internet and process
			CO2 : To provide knowledge about internet programmes
			CO3 : To understand the concept web and web sources.

S.No.	PO Number	PO Statements
1	PO1	An understanding the roots of victorian literature
2	PO2	Providing outstanding writers of the period victorian age
3	PO3	Developing Critical and Analytical Thinking of victorian writers
4	PO4	To know about victorian poems

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring knoweledge of victorian poems
2	PO2	Ability to analyze literature
3	PO3	Demonstrate effectively analysis of literature
4	PO4	Demonstrate ability to know about novel and plays

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
V	Core I	British Literature IV	CO1 : Students will be know strong conceptual
			CO3 : Students know about fiction and critical ananalysis of literature
			CO4: Students know about literary theory
			CO5: To know about the Criticism
	Core II	Language and Linguistics	CO3 : Analyse the principle of communication process and barriers to
			CO4: To demonstrate the language principles
CO5: To know about the morphology and phonology			
v	Core II	Introduction to Literary Criticism	CO2 : Identify classical criticism and modern criticism and their works
			CO3 : Identify and analyze the romantic criticism and diffrence between
			CO4: To understand the Structaralism

v			CO5: To know about the Surrealism
	Core II	Indian Literature In Translation	CO2 : Develop, interpret, and express ideas through CO3 : Analyze, evaluate, and synthesize of translation and communication
V	Elective	Journalism and Mass Communication	CO1 : To develop the understanding of the concept journalism and mass CO2 : To develop necessary skill for writing journalism and news CO3 : To analyse the strategic issues and strategies required to editig and CO4: To know about the Newspaper Editing CO5: To find the importance of Media
			CO1 : Understand the basic concepts and technologies used in the field of CO2 : the knowledge of the different types of asking permission and making CO3 : Understand the processes of developing and implementing information CO4 : Analyze, evaluate, and synthesize of translation and communication CO5 : To understand the LSRW
			CO1 : Understand the basic concepts and technologies used in the field of CO2 : the knowledge of the different types of asking permission and making CO3 : Understand the processes of developing and implementing information CO4 : Analyze, evaluate, and synthesize of translation and communication CO5 : To understand the LSRW
	Skill Based Subject	Conversational English	CO1 : Understand the basic concepts and technologies used in the field of CO2 : the knowledge of the different types of asking permission and making CO3 : Understand the processes of developing and implementing information CO4 : Analyze, evaluate, and synthesize of translation and communication CO5 : To understand the LSRW

S.No.	PO Number	PO Statements
1	PO1	To enable the students to read the plays
2	PO2	critical approach of plays
3	PO3	the review of tradional concepts of genre
4	PO4	Tragedy and the Romantic comedy
5	PO5	TO Know about Igbo Cultre

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring knoweledge of commedy and tragedy
2	PO2	Ability to analyze modern writers
3	PO3	To know about techenical writing
4	PO4	To know about editing and journalism
5	PO5	To know about the editing process in a book

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
VI	Core I	Shakespeare	CO1 : The students should able to know about shakespeare life and his works
			CO2 : To know about comedy and tragedy of shakespeare plays
			CO3 : Students should able to know about theaters and characters of
			CO4: To know about the Shakespeare writing style
			CO5: To understand Shakespeare Sonnet
	Core II	British Literature V	CO1 : To know about modern writers poems and life style.
			CO2 :Understand the 20th century poet and their works.
			CO3 : To give the students knowledge of literature.
			CO4: To know about the style of Jane Austen
			CO5: To understand personal elements of Charles Lamb
VI	Core II	New Literature in English	CO1 : Understand about modern poems and novels of Africa
			CO3 : Analyze the learning and understand Afro-American literature.
			CO4: To know about the African Culture
	Core II	English Language Teaching	CO1 : To analysis of problems of the teaching of english and teaching of
			CO2 : students know about teaching of prose and grammar.
			CO3 : Methods of teaching of english and teaching compotions
VI	Elective	Technology mediated English	CO2 : To give practice of writing of News and projects
			CO4: To know about the Email
			CO5: To know about the VAN network
	Skill Based Subject	Copy Editing and Proof Reading	CO2 : Apply capital letters and using traditional
			CO4; To know the use of Capital Letters writing
			CO5 ; To understand about the Editing

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of MA ENGLISH

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	An understanding English Literature
2	PO2	Providing english as a Global language
3	PO3	Developing language skill
4	PO4	learning LSRW
5	PO5	To know the basic sounds of English

Programme Specific Outcome (PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring KNOWLEDGE about literature
2	PO2	Ability to understand the literary genere
3	PO3	Demonstrate effectively oral and written communication
4	PO4	Demonstrate ability to linguistics and phonetics
5	PO5	To know the power of women

Course Outcome (Cos)

Semster	Course	Title of the Course	Course Outcome
I	Core I	Chaucer and Elizabethan Literature	elizabethan period
			european forms such as the Sonnet, Allegory and the which reflects in the writings and the transition from CO4: To know about the Shakespeare writing style CO5: To understand Shakespeare Sonnet
	Core I	American Literature	major authors in American Literature
			givensignificant contributions to the development of influenced the literary movements can be

			CO4: To know about the style of Jane Austen
			CO5: To understand personal elements of Charles
I	Core I	Indian Literature in English	Indian Writing in English
			Writers in English
			Literature In english
			CO4: To know about the African Culture
			CO5: To know about the landscape of Canada
Core I	Modern English Grammar	proficiency in the use of english	
		and analytical aspects of the use of language	
		contemporary English Grammer	
I	Core I	British Poetry	womens writers.
			women in anciant india
			contemporary women writer's.
			CO4; To know about victorian poetry
			CO5: To understand the concept of nature
	Based Stu	Public speaking and creativing	CO1; To know the structure of paragraph
			CO2 : Apply capital letters and using traditional
CO3 : To know about headlines and title page and			
I	Elective	Indian writing translation	CO4; To know the use of Capital Letters writing
			CO5 ; To understand about the Editing
			CO1: To help the students appreciate the richness in
			CO2: To acquaint the students to the eminent Indian
			CO3 : To reach the students knowledge about Indian
			CO4: To know about the Indian Culture
			CO5: To know about the landscape of India

S.No.	PO Number	PO Statements
1	PO1	An understanding English Literature
2	PO2	Providing english as a Global language
3	PO3	Developing language skill
4	PO4	learning LSRW

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring KNOWLEDGE about literature
2	PO2	Ability to understand the literary genere
3	PO3	Demonstrate effectively oral and written communication
4	PO4	Demonstrate ability to linguistics and phonetics

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
II	Core I	Restoration and Eighteenth century Literature	CO1:To survey the emergence of new models of CO2 :To know the drama in this period of high CO3 : To study the broadening of the literary CO4: To know about the Shakespeare writing style CO5: To understand Shakespeare Sonnet
	Core I	The Romantic Revival Literature	CO1:To provide an overview of the transformation CO2 :To enable the students to appreciate the CO3 : Accuring the knowledge of Romantic period. CO4: To know about the style of Jane Austen CO5: To understand personal elements of Charles
II	Core I	Language and Linguistics	CO1 : To examine the representative text of the CO2 :To expose the students to the concepts of the CO3 : Students to know about the literary criticism CO4: To know about the African Culture CO5: To know about the landscape of Canada
	Core I	Literary criticism	CO1: To know about the Indian Constitution CO2 : To know about the basic fundamental rights. CO3 : To know about the Indian Penal Code ,and
	Elective	Post colonial studies	CO1 :To introduce the political and socio cultural CO2 :To trace the historical contents laying CO3 : To help the students to appreciate the post

II	Open elective	Journalism and mass communication	CO4: To know about the Email
			CO5: To know about the VAN network
II	Elective	Subaltern literary studies	CO1 : To know about the rule of copy editing and
			CO2 : Apply capital letters and using traditional
II	Core I	Translation theory and practice	CO3 : To know about headlines and title page and
			CO4; To know the use of Capital Letters writing
II	Core I	British Drama	CO5 ; To understand about the Editing
			CO1 : To examine the representative text of the
II	Core I	British Drama	CO2 :To expose the students to the concepts of the
			CO3 : Students to know about the literary criticism
II	Core I	British Drama	CO4: To know about the African Culture
			CO5: To know about the landscape of Canada
II	Core I	British Drama	CO1: To know about the Indian literature
			CO2 : To know about the basic fundamental rights.
II	Core I	British Drama	CO3 : To know about the Indian translation
			CO1 :To introduce the political and socio cultural
II	Core I	British Drama	CO2 :To trace the historical contents laying
			CO3 : To help the students to appreciate the post
II	Core I	British Drama	CO4: To know about the Elizabethan drama
			CO5: To know about the Victorian drama

S.No.	POS Number	POS Statements
1	PO1	Acquiring KNOWLEDGE about literature
2	PO2	Ability to understand the literary genere
3	PO3	Demonstrate effectively oral and written communication
4	PO4	Demonstrate ability to linguastics and phonetics
5	PO5	To find social impact in victoria novel

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
			CO1 : To enable the students to read the plays in the
			CO2 : To study the plays of shakespeare in the

III	Core I	Shakespeare Studies	CO3:Students to know about the sixteenth century.
			CO4: To know about the Shakespeare writing style CO5: To understand Shakespeare Sonnet
III	Core I	Victorian Literature	CO1 :To study Victorian Literature in the CO2 : To study victorian literature impromentsns CO3 :To analyse Victorian Literature as an art that CO4: To know about the style of Jane Austen CO5: To understand personal elements of Charles
III	Core I	Contemporary literary theoryI	theory as a system to critically interpret literay texts. CO2:To enable the students to understand the broad CO3 : To help the students to understand the literary CO4: To know about the African Culture CO5: To know about the landscape of Canada
	Core I	Research Methodology	CO2 :To enable the students to present the CO3 : Learn the basics methods of research.
III	Elective	Literature AAA	CO1 : To develop the reading and writing skills of CO2 : To enhance the interpretation skills CO3 : TO the students to critically analysis appreciate CO4: To know about the Email CO5: To know about the VAN network

S.No.	PO Number	PO Statements
1	PO1	An understanding English Literature
2	PO2	Providing english as a Global language
3	PO3	Developing language skill
4	PO4	learning LSRW

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring KNOWLEDGE about literature
2	PO2	Ability to understand the literary genere
3	PO3	Demonstrate effectively oral and written communication
4	PO4	Demonstrate ability to linguistics and phonetics

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome	
IV	Core I	20 th century literature	CO1 : To help the sudents retrace the diversity of	
			CO2 : To introduce the students throughly	
			CO3 : to enable the students to know about modern	
			CO4: To know about the Shakespeare writing style	
			CO5: To understand Shakespeare Sonnet	
	Core I	ELT	CO1 : Acquire conceptual knowledge of origin of eng	
			CO2 : Identify the Ino-eropean family language	
			CO3 : Develop the skill of Pronunciation	
			CO4: To know about the style of Jane Austen	
			CO5: To understand personal elements of Charles	
IV	Core I	Contemporary literary theory II	CO1 :To help the students to understand literary	
			CO2 :To enable the students to understand the broad	
			CO3 :To help the students to understand the literary	
			CO4: To know about the African Culture	
			CO5: To know about the landscape of Canada	
	Core I	Research project	CO1 : To provide an opportunity for the students to p	
			CO2 : To develop the students in the ability to carry	
				CO1 : To develop an understanding of children's
				CO2 : To provide knoweledge about children's

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of Mathematics (UG)

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	Promotion of self study
2	PO2	Promotion of thinking
3	PO3	Problem Solving
4	PO4	Understanding Concepts

Programme Specific Outcome (PSO)

S.No.	POS Number	POS Statements
1	PO1	To enable the students to quantify their experiences in other subjects they study.
2	PO2	To enable the students to study mathematics for themselves.
3	PO3	To provide high quality mathematical education at all levels that will be vital for scientific and technological developments.
4	PO4	structures through applications.

Course Outcome (Cos)

Semster	Course	Title of the Course	Course Outcome
	Core-I	Algebra	CO1 know the relationship between roots and coefficients.
			CO2 identify the nature of the roots of the given equation .
			CO3 evaluate sum to infinity of the given binomial, exponential and logarithmic series.
			CO4 identify the types of matrices and calculate the Eigen values of a given square matrix.

I	Core-II	Trigonometry	CO5 know the number theory concepts.	
			CO1 know the expansions of $\cos n\theta$, $\sin n\theta$ in powers of $\cos\theta$ and $\sin\theta$	
			CO2 expand powers of sines and cosines of θ in terms of functions of multiples of θ	
			CO3 know the concept of hyperbolic functions	
			CO4 know the logarithm of complex quantities	
				CO5 find the summation of trigonometric series.
	Allied	numerical methods -I	CO1 Define First and higher order differences-forward differences and Backward differences	
			CO2 Determine Central difference Operators Central difference formulae: Gauss Forward and Backward formulae	
			CO3 Know about the Divided differences-Newton's divided differences formula and Lagrange's Estimating the Missing terms	
			CO4 Understand Lagrange's method and Reversion of series method	
CO5 Apply the knowledge of Gauss elimination method-matrix inversion method-Gauss-Jordan Method, Gauss Seidal method				
II	Core-I	Calculus		
			CO2 know the concept of Cartesian and polar coordinates	
			CO3 gain the knowledge of curvature, evolutes and envelope concepts	
			CO4 solve integration problems	
				CO5 evaluate double and triple integrals.
	Core-II	Analytical geometry and three dimensions	CO1 know the equation of the plane and its applications	
			CO2 gain the knowledge of straight line and its applications	
			CO3 solve sphere related problems	
			CO4 know the concepts of cone, right circular cone and enveloping cone	

			CO5 know the concepts related to cylinder..
	Allied	numerical methods -II	CO1 know about the Newton's forward and backward differences to compute derivatives
			CO2 understand the General Quadrature formula-Trapezoidal rule-Simpson's one third rule Simpson's three-eight rule
			CO3 Know about the Linear differences equations-Linear homogeneous difference equation
			CO4 Understand Solution of Algebraic and Transcendental Equations
			CO5 Apply the knowledge of Euler's method, Euler's modified method-Picard's method, Taylor's methods
III	Core-I	Differential Equations	CO1 Solve the first order higher degree differential equations.
			CO2 Solve the second order differential equations.
			CO3 Know the concept of total differential equations.
			CO4 know the applications of Laplace transform.
			CO5 solve the partial differential equations.
	skill based	Mathematics for competitive Examinations I	
			CO2 Find the average, square root and cubic root
			CO3 solve the problems on ages and numbers
			CO4 know the percentage, profit and loss
			CO5 analyze the proportion and partnership problems
	Allied	Mathematical Statistics I	CO1 Study the concept of Sample space, events and probability
			CO2 know about the concepts of random variables and expectation and moments
			CO3 know about the concepts of Characteristic Function - Properties
			CO4 Describe Integer Linear Programming and Gomory's all integer cutting plane method.
			CO5 know about the Concept of Bivariate Distribution - Correlation and regression.

IV	Core-I	Vector analysis and fourier series	CO1 know the physical and geometrical meaning of the derivative
			CO2 know the physical and geometrical meaning of the divergen
			CO3 evaluating line, surface and volume integrals
			CO4 know the applications of Stoke's Theorem, Gauss Divergence Theorem and Green's theorem
			CO5 analyze the Fourier series in both theory and application level
	Core-II	Mechanics	Equilibrium of a particle
			CO2 Knowledge pertaining to Parallel forces and coplanar forces
			CO3 3. To know about Center of mass
			CO4 4. Gain the knowledge of projectile and its applications
			CO5 5. Understand the concept of impact
	Allied	Mathematical Statistics II	CO1 know about the Statistical Population Census and Sampling Survey
			CO2 Explore about the Test of significance - Large sample test and Exact test based on 't', Chi - square and F distribution
			CO3 Explain the different types of discrete and continuous distributions and their utilization.
			CO4 Briefly study about Test of Hypothesis - Likelihood Ratio Test
			CO5 : Gains knowledge in theory of estimation, methods of finding estimates, confidence intervals and Theory of hypothesis.
	skill based	Mathematics for competitive examinations - II	CO1 Understands Chain rule -Time and work.
			CO2 Time and Distance
			CO3 Problems on Trains.
			CO4 Boats and Streams.

			CO5 Alligation or Mixture.
V	core I	Real analysis I	CO1 know the concept countability
			CO2 identify convergent, divergent sequences
			CO3 solve conditional convergence and absolute convergence problems
			CO4 evaluate limit of a function
			CO5 know the concepts of open, closed sets.
	Core-II	Abstract algebra	CO 1 Students able to identify groups and subgroups.
			CO2 to understand homomorphism and isomorphism
			CO3 to do the problems in permutation.
			CO4 to study the basics of rings, ideals and integral domain.
			CO5 to apply Euclidean rings in theorems.
	Core-III	Complex Analysis	CO1 gain knowledge about Complex functions and its nature, limits and Analytic functions.
			CO2 gain knowledge about elementary transformations.
			CO3 gain knowledge about line integrals and techniques for solving problems.
			CO4 gain knowledge about elementary transformations
			CO5 know about Integrals, Cauchy-Goursat's Theorem
	Core IV	Statics	CO1 Describes about forces, and types of forces
			CO2 know about moment of forces, parallel forces
			CO3 know about the couples and equilibrium
			CO4 reduction of coplanar forces, laws of friction
			CO5 know about centre of mass of all particles.
Core V	Dynamics	CO1 know about velocity, power and energy	
		CO2 know about the projectile and ranges	
		CO3 know about the impulsive forces and laws of impact	
		CO4 know about the central forces and keplers laws	

		CO5 know about the moment of inertia and sphere
Allied	Graph Theory	CO1 Know about the graph and subgraph
		graphs
		CO3 know about the walk , trail and paths
		CO4 know about the connectivity graph and eulerian and hamiltonian graph
		CO5 know about the tree and theorems and simple graph
skill based	Mathematics for competitive examinations - III	CO1 Understands Chain rule -Time and work.
		CO2 Time and Distance
		CO3 Problems on Trains.
		CO4 Boats and Streams.
		CO5 Alligation or Mixture.
core I	Linear Algebra	CO1 Understands linear dependence and independence
		CO2 understands the dual products space
		CO3 understand the algebra of linear transformations
		CO4 Know the matrices, canonical forms
		CO5 know the trace and transpose
core II	Real Analysis II	CO1 Understands the open sets and complete metric spaces
		CO2 understands the compact metric spaces and continuity of inverse functions
		CO3 understand the riemann intergral , their properties and derivatives
		CO4 Know the role's theorem and fundamental and taylor's theorem
		CO5 know the sequence and series of function
		CO1 Understands Morera's theorem - Maximum Moduli of functions
		CO2 understands the Taylor's and Laurent's theorem

VI

VI	core III	Complex Analysis II	CO3 Know the Singularities and Cauchy's Residue theorem
			CO4 Know the Improper integrals involving Trigonometric functions
			CO5 know the Zeros of Analytic functions , Poles and zeros
	core IV	Programming in C language	CO1 Understands C Constants, variables, Data-type, Declaration of variables
			CO2 understands the Operators, expression and input output operations
			CO3 Know the Decision making: branching and looping
			CO4 Know the One - dimensional array, two - dimensional array
			CO5 know the Need for User-defined function, Multi-function program
	skill based	Mathematics for competitive examinations - IV	CO1 Understands Simple Interest.
			CO2 understands Compound Interest
			CO3 Know the Logarithms - Races and Games of Skill.
			CO4 know about the Area
			CO5 Know about the Volume and surface areas.
	Elective	Fuzzy Mathematics	CO1 Understands fuzzy subsets and boolean algebra
			CO2 understands the product and sum of fuzzy sets and cartesian product
			CO3 Know the algebra of fuzzy sets
			CO4 know about the fuzzy subgroups and homomorphic image
			CO5 Know about the fuzzy invariant subgroups and subrings
	Elective	Operations Research	CO1 Understands the networks and critical path method
			CO2 understands the Network scheduling by PERT Method- PERT Computation
CO3 Know the inventory model and EOQ model.			

	Elective	Operations Research	CO4 know about the Sequencing problem and n jobs through 2 machines, n jobs through 3 machines
			of M/M/1 and M/M/N systems

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution

Stated and Displayed in website of the institution(to provide the weblink)

Department of Mathematics (PG)

Programme Outcome(POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Numbe	PO Statements
1	PO1	Promotion of self study
2	PO2	Promotion of thinking
3	PO3	Problem Solving
4	PO4	Understanding Concepts

Programme Specific Outcome(PSO)

S.No.	POS Numbe	POS Statements
1	PO1	To enable the students to quantify their experiences in other subjects they study.
2	PO2	To enable the students to study mathematics for themselves.
3	PO3	To provide high quality mathematical education at all levels that will be vital for scientific and technological developments.
4	PO4	the students to learn the basic structures of mathematics through unifying concepts and to motivate these structures through ap

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
I	Core-I	Algebra-I	CO1 Utilize the class equation and Sylow theorems to solve different related problems
			CO2 Use various types of Direct products ,Finite abelian groups, Modules
			CO3 Analyze of Linear Transformations: Canonical forms , Triangular form and Nilpotent transformations.
			CO4 Analyze and demonstrate Jordan form and rational canonical form
			CO5 Use the concepts of Trace and transpose - Hermitian, unitary, normal transformations, real quadratic form
	Core-II	Real analysis- I	CO1 Define Riemann integrable and Riemann sums
			CO2 Prove a theorem about Riemann sums and Riemann integrals
			convergence of sequences and series of functions, and confidence in applying them.
			CO4 Recognize the difference between pointwise and uniform convergence of a sequence of functions,
			CO5 Illustrate the convergence properties of power series.
	Core-III	Ordinary differential equations	CO1 Distinguish between linear, nonlinear, partial and ordinary differential equations.
			CO2 State the basic existence theorem for 1st order ODE's and use the theorem to determine a solution interval.
			CO3 Recognize and solve a variable separable differential equation.
			CO4 Recognize and solve an exact differential equation.

		CO5 Make a change of variables to reduce a differential equation to a known form.
Elective-I	Mechanics	CO1 Use Euler-Lagrange equation to find stationary paths and its applications in some classical fundamental problems.
		CO2 Describe and understand the motion of a mechanical system using Lagrange Hamilton formalism.
		CO3 Define Kinematics of Velocity, Impact and law of impact.
		CO4 Explain Types of forces and Equilibrium of a uniform homogeneous string
		CO5 Define Force and Newton's Laws of motion and Forces on a rigid body.
Elective-II	Public Speaking and Creative Writing	CO1 Understand the process of communicating with others.
		CO2 Describe the fundamental elements in a speech.
		CO3 Outline the goals of a speech,
		CO4 Identify appropriate use of pauses in your speech
		CO5 Identify the importance of eye contact in public speaking.
Core-I	Algebra-II	CO1 Implement different methods to find complex roots.
		CO2 Use various Roots or Polynomials and More about roots Use the definition and properties of linear transformations and matrices of linear transformations and change of basis, including kernel, range and isomorphism
		CO3 Express Wedderburn's theorem on finite division rings
		CO4 Design, analyze and implement the concepts of Gauss Lemma, Einstein's irreducibility criterion, separable extensions etc.

II

		CO5 Utilize the Polynomial rings, UFD, ED, PID to solve different related problems.
Core-II	Real analysis- II	CO1 Define Riemann integrable and Riemann sums
		CO2 Prove a theorem about Riemann sums and Riemann integrals
		CO3 Explain Functions with non-zero Jacobian determinants ,The inverse function theorem and The Implicit function theorem.
		CO4 Describe basic topology of Metric spaces, Compact sets Perfect sets, Connected sets.
		CO5 Properties of the Lebesgue integral for bounded measurable functions.
Core-III	Partial differential equations	CO1 Define genesis of First Order P.D.E and Prove the Pfaffian Differ
		CO2 Determine integral surfaces passing through a curve, characteristic curves of second order PDE and compatible systems.
		CO3 Be competent in solving linear PDEs using classical solution methods.
		CO4 Understand partial differential equations of first order (linear and nonlinear), second and higher order.
		CO5 Apply the knowledge of PDEs and their solutions in order to understand physical phenomena.
Elective-I	Difference equation	CO1 Understands the concept of difference equations.
		CO2 Solve linear homogeneous equations with constant coefficients and linear non-homogeneous equations.
		CO3 Express system of difference equation
		CO4 Apply the Z- transform for analyze of difference systems.

III

		CO5 Understand regular and normal spaces and some important theorems in these spaces.
Core-III	Operations research	CO1 Study the concept of Operations Research and Mathematical Formulation of the Problems.
		CO2 Solving a LPP by Graphical Method and Simplex Method.
		CO3 Obtain Initial Basic Feasible Solution (IBFS) Transportation Problems.
		CO4 Describe Integer Linear Programming and Gomory's all integer cutting plane method.
		CO5 Extend knowledge to Non Linear Programming Problems.
Elective-I	Probability theory	CO1 Recognize the role of probability theory, descriptive statistics and inferential statistics in the applications of many different fields.
		CO2 Apply Chebyshev's theorem
		CO3 Define, illustrate and apply certain frequently used discrete and continuous probability distributions.
		CO4 Illustrate and apply theorems concerning the distributions of functions of random variables and the moment-generating functions..
		CO5 Define probability and axiomatic
Elective	Tensor analysis and Relativity theory.	CO1 Understand the concept of Tensor and their properties
		CO2 Understand the conventions like summation convention and comma notations
		CO3 Understand the concepts of strain, stretch, rotation and shall be able to apply the knowledge in solving real world problems related to continuum mechanics
		CO4 Christoffel Symbols and their properties

			CO5 Explain Galilean Transformation and Maxwell's equations
IV	Core-I	Complex analysis-II	CO1 Express the Cauchy's Derivative formulas
			CO2 Evaluate Complex Integration using Cauchy's theorem.
			CO3 Calculate the Schwarz-Christoffel formula and Mapping on a rectangle.
			CO4 Express general properties of Elliptic functions.
			CO5 Prove that the Weierstrass ρ -function.
	Core-II	Functional analysis	CO1 Define and illustrate Banach Space.
			CO2 State and Prove Hahn Banach theorem and open mapping theorem.
			CO3 Define and illustrate Hilbert spaces and orthogonal.
			CO4 Prove Spectral theorem
			CO5 Understand the nature of abstract mathematics and explore the concepts in further details.
	Core-III	Mathematical statistics	CO1 Tackle big data and draw inferences form it by applying appropriate statistical techniques.
			CO2 Explore the basic ideas about measures of central tendency, dispersion and their applications in other statistical problems.
			CO3 Explain the different types of discrete and continuous distributions and their utilization.
			CO4 Briefly study about Student's t-distribution, χ^2 distribution and tests of significance.
			CO5 : Gains knowledge in theory of estimation, methods of finding estimates, confidence intervals and Theory of hypothesis.
			CO1 Understands the concept of difference equations.

Core-IV	Difference equation	CO2 Solve linear homogeneous equations with constant coefficients and linear non-homogeneous equations.
		CO3 Express system of difference equation
		CO4 Apply the Z- transform for analyze of difference systems.
		CO5 Prove the Poincare's Theorem of difference equation.
Elective	Mathematical softwares practicals	CO1 Describes the development process of TeX and LaTeX.
		CO2 Tells the advantages of LaTeX over other more traditional softwares.
		CO3 Lists LaTeX compatible operating systems.
		CO4 Able to use Matlab for interactive computations.
		CO5 Familiar with memory and file management in Matlab.

DEPARTMENT OF PHYSICS

Upon completion of the degree requirements, student will be able

S.NO	PO Number	PO statements
1	PO1	Nuclear Physics deals with study of the structure of matter at the atomic level. A few other applications of the subject are nuclear medicine, ion implantation in material engineering, magnetic resonance imaging, and radiocarbon dating in geology and archaeology.
2	PO2	working of various Electronic circuits. The students will understand how to use the basic test and measuring instruments to test the circuits. continuous and discrete time signals and systems. Understand and resolve the signals in frequency domain using Fourier series and Fourier transforms.
3	PO3	The course gives an introduction to solid state physics, and will enable the student to employ classical and quantum mechanical theories needed to understand the physical properties of solids. Emphasis is put on building models able to explain several different phenomena in the solid state.
4	PO4	the structure and dynamics of atoms and simple molecules. the interaction between atoms, molecules and electromagnetic fields. collision processes involving atoms, charged particles and molecules. the structure of the periodic system, many-electron and relativistic effects.
5	PO5	The student will get an introduction to the discipline of optics and its role in the modern society. The student shall master the geometrical approximation, including Gauss thin lens formula, Fermat's and Huygen's principles, and the paraxial matrix formalism for refractive and reflective surfaces.

Programme Specific Out come (PSOs)

S.NO	PO Number	PO Statement
1	PO1	After completing the course, you will: know what radioactivity is and how it arises. know about radioactivity in nature and why it is there. know about fundamental concepts e.g. half-life, radioactive series and isotope generators.
2	PO2	Characteristics and applications of operational amplifiers (op-amps). Design and analysis of op-amp amplifiers, comparators, voltage and current regulators, summers, integrators, and differentiators. Frequency response of op-amp circuits. Applications of the op-amp in power supplies and control systems.
3	PO3	Explain the measurement of crystal size distribution. Discuss the impact of additives, solvents and impurities on crystal growth and purity. Explain the design of batch and industrial crystallizers. Scale up from the laboratory to the Pilot Plant and beyond/Impact of mixing.
4	PO4	describe the structure of atoms in terms of protons, neutrons and electrons. understand what is meant by a chemical element and how they are arranged in the periodic table. explain what is meant by atomic number and relative atomic mass of a chemical element.
5	PO5	Recognize and classify the structures of Optical fiber and types. 1. Discuss the channel impairments like losses and dispersion. 2. Analyze various coupling losses. 3. Classify the Optical sources and detectors and to discuss their principle

Course Outcome(Cos)				
Semester	Course	Title of the course	Course Outcome	
I	CORE	MECHANICS	CO1 :Study the basics of vectors algebra and the dynamics of a system	
			CO2: To understand the dynamics of rigid bodies	
CO3: To learn the concept of work, energy and collisions				
CO4: Study the basics of elasticity and bending of beams				
CO5:Study the gravitational and satellites				
	ALLIED	CHEMISTRY I	in allied subject areas. (i). Systematic and coherent understanding of the fundamental concepts in Physical chemistry, Organic Chemistry, Inorganic Chemistry, Analytical Chemistry and all other related allied chemistry subjects.	
II	CORE	HEAT AND THERMODYNAMICS	CO1:Understand the nature of calorimetry by specific heat of solids and law of thermodynamics and entropy	
			CO2:Analyses of zeroth law of thermodynamics and entropy	
			CO3:Understanding the low temperature physics	
			CO4:Analyses thermal conductivity and black body radiation	
			CO5:Understanding the statistical methods	
		ALLIED	CHEMISTRY II	in allied subject areas. (i). Systematic and coherent understanding of the fundamental concepts in Physical chemistry, Organic Chemistry, Inorganic Chemistry, Analytical Chemistry and all other related allied chemistry subjects.
	CORE	PRACTICAL I		CO1:Study the elastic behaviour of materials
				CO2:Analyse the relationship between various types of experiments
				CO3:Perform the procedure as per standard values
				CO4:Understan the applications
	ALLIED	PRACTICAL I		CO1:Study the elastic behaviour of materials
				CO2:Analyse the relationship between various types of experiments
CO3:Perform the procedure as per standard values				
CO4:Understan the applications				
CORE		ELECTRICITY AND MAGNETISM	CO1:Get clear idea about the specific heat capacity and kinetic theory of gases	
			CO2: Study the conduction, radiation and low temperature physicswill be gained	
			CO3:Analyse the thermodynamic system and its laws	

III		MAGNETISM	CO4:Understand the concept of entropy and Mawell'sthermodynamical relations
			CO5:Analyse basic ideas of statistical mechanics
	ALLIED	MATHEMATICS I	CO1:Students will solve nonlinear equations using analytic methods.
			CO2:Outcome 2: Students will use mathematics concepts in real world situations. expressions.
	SBS	BASIC ELECTRICAL TECHNOLOGY	CO1: Students can know the basics principles of electricity.
			CO2: To expose the knowledge on different kinds of cells and batteries
			CO3: To state the different theorems for DC circuits and know the function of DC
			CO4: To acquire the basic ideas of alternating voltage and current.
IV	CORE	WAVES AND OPTICS	CO1:Study of the interaction of forces between solids in mechanical systems.
			CO2:Centre of mass and inertia tensor of mechanical systems. results.
			CO4:Newton's laws of motion and conservation principles.
	ALLIED	MATHEMATICS II	CO1:Students will solve nonlinear equations using analytic methods.
			CO2:Outcome 2: Students will use mathematics concepts in real world situations. expressions.
	SBS	PHYSICS WORKSHOP SKILLS	CO1:Employ the specific skillss in the testing of instruments
			CO2: Express the function and working of different power supply system. appliances
			communication.
	CORE	PRACTICAL II	CO1:Study the elastic behaviour of materials
			CO2:Analyse the relationship between various types of experiments
			CO3:Perform the procedure as per standard values
			CO4:Understan the applications
	CORE	Optics	CO1:Understand the natural behaviour of aberration in lens
			CO2:Study the theory and experiment of interference using air wedge, newtons rings and michelson interferometer
			fraunhoffer methods
			CO4:Study the theeories for production of polarization of light
			hertz method
		ATOMIC PHYSICS AND SPECTROSCOPY	CO2:Analyse the relationship between various types of couplings
			CO3:Understand the properties of x-ray s verification
		characteristics	

V		BASIC ELECTRONICS	CO2:Analyse the characteristics of transistor and transistor biasing circuits amplifier
			CO4:Analyse the relationship between amplifier and oscillators
			CO5:Understand the applications of op-amps i inverting and non inverting modes.
	ELECTIVE-I	MATERIAL SCIENCE	CO1:explain importance of materials in materials science and engineering field.
			CO2:relate between material and engineering.
			CO3:classify materials according to their types. of materials.
			CO5:follow new developments in materials application field.
	SBS	ASTROPHYSICS	CO1: To study about the stars of the universe
			CO2: To learn about the astronomical instruments
			CO3: To described solar system
			CO4: To knowledge about milky way.
	VI	CORE	NUCLEAR PHYSICS AND PARTICLE PHYSICS
			CO3:explain the deuteron behavior at ground and excited states.
CORE		QUANTUM MECHANICS,RELATIVITY AND MATHEMATICAL PHYSICS	and numerical methodsand atoms in different systems based on quantum mechanics
			CO2:interpret the results. explain the physical states of elementary particles
			CO3:Understand the negative result of michelson morley experiment , galilean and lorentz transformation
			CO4;conservative and central-conservative forces mathematically understand the conservative theorems of energy, linear momentum and angular Momentum.
CORE		SOLID STATE PHYSICS	molecules
			conductivity
			CO3:Understand the properties of matter and classifications - polarization
			CO4:Understand the properties of semi conducotrs
			CO5:Analyse the relationship between semiconducotor devices and understand the applications of semiconductor devices
ELECTIVE-I		APPLIED ELECTRONICS	CO1:Understand the fundamentals of codes and number system
		CO2:Understand the binary arithmetic , logics and boolean functions	
		counters	

		CO4:Perform the procedures into applications
		CO5:Understand the applicattions into memory circuits
ELECTIVE-II	LASER AND FIBRE OPTICS	CO1Understand the basic principle of laser and characterisitcs
		CO1:Undertand the theory of types of lasers
		CO2:Perform the procedures into applications oriented one
		CO3:Understand the basic concepts of optical fibres
		systems
SBS	INSTRUMENTATION TECHNIQUES	CO1: How to connect the bridge circuits
		CO2: To learn about the converters(ADC)
		CO3: How to working the CRO with measurment of frequency
		CO4: To knowledge about the principle and function of ECG & EMG
PRACTICAL III	PHYSICS PRACTICAL	CO1:Study the elastic behaviour of materials
		CO2:Analyse the relationship between various types of experiments
		CO3:Perform the procedure as per standard values
		CO4:Understan the applications
PRACTICAL IV	PHYSICS PRACTICAL	CO1:Study the elastic behaviour of materials
		CO2:Analyse the relationship between various types of experiments
		CO3:Perform the procedure as per standard values
		CO4:Understand the applications

DEPARTMENT OF M.Sc PHYSICS

Upon completion of the degree requirements, student will be able

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Semester	Course	Title of the course	Course Outcome
I	CORE	MATHEMATICAL PHYSICS I	CO1:Employ appropriate instruments to measure given sets of parameters.
			CO2:Practice the construction of testing and measuring set up for electronic systems.
			CO3:To have a deep understanding about instrumentation concepts which can be applied to Control systems.
		CLASSICAL MECHANICS AND STATISTICAL MECHANICS	CO1:Students learn about Lagrangian and Hamiltonian formulation of Classical Mechanics.
			CO2:state the conservation principles involving momentum, angular momentum and energy and understand that they follow from the fundamental equations of motion
			CO3:Have a deep understanding of Newton's laws,
		QUANTUM MECHANICS-I	CO1:solve the Schrödinger equation for standard systems with both analytical and numerical methods
			CO2:interpret the results. explain the physical states of elementary particles
			CO3:atoms in different systems based on quantum mechanics
	ELECTIVE-I	ELECTRONIC DEVICE AND APPLICATIONS	CO1:Ability to analyze PN junctions in semiconductor devices under various conditions.
			CO2:Ability to design and analyze simple rectifiers and voltage regulators using diodes.
			CO3:Ability to describe the behavior of special purpose diodes.
			CO4: Ability to design and analyze simple BJT and MOSFET circuits.
OPEN		CO1: The students will be able to acquire knowledge of fertilizers	
		CO2: Appreciate the importance of sugar industries in India	

	OPEN ELECTIVE I	INDUSTRIAL CHEMISTRY I	CO3: Acquire knowledge of Chemical explosives Illustrate the importance of leather industries Identify the importance of water industry
II	CORE	MATHEMATICAL PHYSICS II	To teach the basics of complex variables and formulate the different theorems
			To provide the knowledge on partial differential equations and to get the solutions of two and three dimensional heat flow
			To describe the basics of group theory and different representation of a group
			To explain the different probability distributions and theory of errors
		QUANTUM MECHANICS-II	The primary objective is to teach the students various approximation methods in quantum mechanics.
			The important topic of quantum scattering is also dealt with. Relativistic quantum theory like Klein-Gordon equation and Dirac equation is also covered
			CO1:Understand the basic mathematical concepts related to electromagnetic vector fields. .
		ELECTROMAGNETIC THEORY	CO2:Apply the principles of electrostatics to the solutions of problems relating to electric field and electric potential,
			CO3:boundary conditions and electric energy density.
	ELECTIVE-II	NANO SCIENCE	CO1:The student will develop a fundamental knowledge of nanomaterials
			CO2:The student will demonstrate an understanding of approaches to engineering nanomaterials and nanostructures.
			CO3:The student will demonstrate an understanding of the challenges on safe nanotechnology
OPEN ELECTIVE I	DAIRY CHEMISTRY	The students will be able to Identify the importance of diary chemistry	
		Acquire knowledge of milk-lipids, proteins, carbohydrates and vitamins	

			Acquire knowledge of milk powder and ice- creams Illustrate the importance of diary detergents
	ORE PRACTICAL	GENERAL EXPERIMENT	CO1:Study the elastic behaviour of materials CO2:Analyse the relationship between various types of experiments CO3:Perform the procedure as per standard values CO4:Understan the applications
	ORE PRACTICAL	ELECTRONICS EXPERIMENT	CO1:Study the elastic behaviour of materials CO2:Analyse the relationship between various types of experiments CO3:Perform the procedure as per standard values CO4:Understan the applications
III	CORE	CONDENSED MATER PHYSICS	CO1: To understand the basic crystal structures,bounding of solids and the energy calculation
			CO2: To study the lattice dynamics and phono momentum.
			CO3: To explaini the free electron gas in three dimensions and electronics heat capacity.
			CO4: To understand basics concept of magneyism and its application.
			CO5: To study the properties of superconducting material and its application
		NUCLEAR PHYSICS	CO1:The course covers tools (accelerators, detectors), particles and nuclei and their substructure, Fermi gas model, shell model, collective model
CO2:symmetries and conservation laws, interactions (electromagnetic, weak, strong), electroweak theory of the Standard Model and QCD, nuclear models (quark model, liquid drop model,			
MICRO PROCESSOR AND MICROCONTROLLER	CO1:recall and apply a basic concept of digital fundamentals to Microprocessor based personal computer system.		
	CO2:identify a detailed s/w & h/w structure of the Microprocessor.		

			CO3:illustrate how the different peripherals (8255, 8253 etc.) are interfaced with Microprocessor.
	ELECTIVE - III	RESEARCH METHODOLOGY	CO1: To teach the basic of rsearch philosophies and research approches. CO2: To know how to do the review of literature. CO3: To expose the importance of internet in research.
IV	OPEN ELECTIVE-I	INDUSTRIAL CHEMISTRY II	CO1: To make the students learn about electrochemical industries CO2: To understand the importance of agrochemical industries CO3: To learn the importance of petroleum an fuel gases CO4: To study about the paints and varnishes.
	CORE	SPECTROSCOPY	CO1: To give an ide about rotatioinal spectra of different molecules using rotational spectroscopy CO2: To study the vibrational spectroscopy of diatomic and polyatommic molecules using IR spectroscopy CO3: To acquire knowledge on raman spectroscopy and its application CO4: To expose the concept of UV spectroscopy and its application.
	ELECTIVE - IV	CRYSTAL GROWTH AND THIN FLIM	CO1: To introduce theories of crystal growth. CO2: To study the crystal symmetry and crystal structures. CO3: To teach the various mechanisms of crystal growth. CO4: To know the basics of thin flim deposition techniques.
	OPEN ELECTIVE - I	POLYMER CHEMISTRY	CO1: To make the students learn the concept of polymers and plastics CO2: To understand theh classification of polymers. CO3: To understand the methods of molecular weight determination CO4: To learn the importance of freons and rubber.
	CORE PRACTICAL	ADVANCED GENERAL EXPERIMENT	CO1:Study the elastic behaviour of materials CO2:Analyse the relationship between various types of experiments CO3:Perform the procedure as per standard values

			CO4:Understand the applications
	CORE PRACTICAL	MICRO PROCESSOR AND MICROCONTROLLER AND C PROGRAMMING	CO1:Study the elastic behaviour of materials
			CO2:Analyse the relationship between various types of experiments
			CO3:Perform the procedure as per standard values
			CO4:Understan the applications
	CORE	PROJECT WITH VIVA VOCE	CO1:Understand the basic ideas about the project
			CO2:Understand the working procedure of the project
			CO3:Perform the procedure as the labarotary standards
			CO4:Understand the calues obtained and its applications

B.SC. CHEMISTRY

Programme Outcome(POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	Demonstrate, solve and an understanding of major concepts in all
2	PO2	Employ critical thinking and the scientific knowledge to design, carry
3	PO3	Create an awareness of the impact of chemistry on the environment,
4	PO4	Find out the green route for chemical reaction for sustainable

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Gain the knowledge of Chemistry through theory and practical's.
2	PO2	To explain nomenclature, stereochemistry, structures, reactivity,
3	PO3	Identify chemical formulae and solve numerical problems.
4	PO4	Know structure-activity relationship.

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
I	Core Theory	General Chemistry - I	CO1 Basic concepts regarding Atomic structure, Periodic properties
			CO2 Bonding concepts, VSEPR and MO theories
			CO3 Basic concepts of organic chemistry
			CO4 To know about the states of matter
			CO5 Application of volumetric analysis
	Allied-I	Allied Physics -I	CO1 Know properties of matter
			CO2 Basic knowledge on specific heat and Newtons Law
			CO3 Basic concepts of electricity and magnetism

			CO4 To know about sound and acoustics Building
			CO5 coulumb law
II	Core Theory	General Chemistry - II	CO1 Know the Alkali metals, Alkaline Earth Metals, P-block Elements and their properties
			CO2 Learning the preparation and properties of Alkanes, Alkenes and Alkynes
			CO3 Know the Dienes and Cycloalkanes with their Stability
			CO4 Study the Planck's Quantum theory of radiation, Schrodinger wave equation and Basics of Thermodynamics
			CO5 Understand the Thermodynamic process, First Law of Thermodynamics and Their relationship
	Core Practical	Volumetric Analysis	CO1 Study the Volumetric analysis of Acidimetry Iodometry and Potentiometry
			CO2 Understand to calculate the strength of solutions
	Allied-I	Physics –II	CO1 Know the experimental study of Matter Wave
			CO2 Learn the Particle accelerators and Conservation Laws
			CO3 Understanding conventional energy and Non-conventional energy
			CO4 Study the Crystal structures, Unit cell, Lattices and Miller Indices
			CO5 Learn Electronics and Digital Electronics
	Allied Practical	Physics	CO1 Experiments based on Young's and Rigidity modulus
			CO2 Practical in Surface Tension and Sonometer
			CO3 Experiments based on Spectrometer and Potentiometer

III

III	Core Theory-III	General Chemistry-III	CO1- Know the principles and application of inorganic qualitative analysis and acid base equilibria, solubility product, spot test reagent types of solvent
			CO2- study about carbon, nitrogen, oxygen family for oxide, hydride, oxyacides
			CO3- Study a. aliphatic and aromatic nucleophilic substitution reaction. Elimination reaction.
			CO4 study the aromaticity, Huckel rule, Electrophilic substitution reaction reaction, ortho and para ratio
			CO5- Study second law of thermodynamics, Carnot cycle entropy, reversible irreversible process
	Allied-I(Theory)	Biochemistry-I	CO1- Know the complete study about carbohydrates
			CO2- Study the amino acids reaction with ninhydrin and common properties
			CO3- Study and learning for primary, secondary, tertiary, quaternary structure of protein
			CO4- Study the concept of DNA and RNA biological function and their type difference between DNA, RNA
			CO5- Study about classification and function of lipids. simple and compound lipids and their properties
	SBS-1	Water treatment and analysis	CO1- Understand characteristic of water, units of water purification of water by various method
			CO2- Explained softening of water by various method. Determination of hardness of water
			CO3- Study about the industrial treatment of water. Effluent treatment of water
			CO4- Studying water analysis of colour, odour, turbidity, taste, temperature, pH. Analysis of solids
			CO5- analysis of chemical substance affecting health. measurements of toxic chemical substance.
	Introduction to Information	CO1- study about introduction computer	
		CO2- clarify the concept of web browser	

IV	NME I	Introduction to Information Technology	CO3- demonstrating the concept of web browser
			CO4- Learning HTML programs
			CO5- get knowledge about web marketing
	Core Theory-IV	General Chemistry-IV	CO1- Know the Electronic configuration of Noble gases, Compounds of Xenon
			CO2- study about Carboxylic acid, Amines
			CO3- Have a Knowledge about Alcohols, Phenols
			CO4- Derive Maxwell relation, free energies
			CO5- Study Third law of thermodynamics, Partial Molar properties
	Core Practical-II	Inorganic qualitative analysis and Preparations	CO1- Have a complete Knowledge about salt analysis
			CO2- Prepare some inorganic compounds
			CO3- Clarify Basic knowledge of inorganic practicals
	Allied-II(Theory)	Biochemistry-II	CO1- Know the complete study about Metabolism of Glycolysis, TCA cycle
			CO2- Studying metabolic disorders such as Jaundice, Ketosis,, Dehydration
			CO3- Have a knowledge of Enzymes and its classification, Mechanism.
			CO4- Identify the concept of DNA and RNA
			CO5- Study about types of vitamins
	Allied Practical-II	Biochemistry Practical	CO1- Have a complete Knowledge about volumetric estimation of amino acids
CO2- Qualitative Analysis of Carbohydrates			
CO3- Qualitative analysis of Amino Acids			
			CO1- Impart Knowledge about Cereals and its classification

SBS II	Food Chemistry	CO2- Explain Vegetables, Fungies, algae.
		CO3- Have knowledge about beverages, appetizers
		CO4- Studying beverages, Preservatives
		CO5- knowing food additives, food colors
NME II	Introduction to Information Technology	CO1- study about introduction computer
		CO2- clarify the concept of web browser
		CO3- demonstrating the concept of web browser
		CO4- Learning HTML programs
Core Theory-V	INORGANIC CHEMISTRY-I	CO5- get knowledge about web marketing
		CO1- Study about the halogen family and related components
		CO2- study about the coordination compounds, structural, geometrical, optical isomerism
		CO3- Understandig sidwick theory VBT AND CFT
		CO4- knowledge about copare VBT, CFT. Bonding, hybridization structure of carbonyls. application of coordination compound
CO5- Study about the nature and structure of solid, defects of solid and semiconductor		
Core theory-V	organic Chemistry I	CO1- Know the complete study about carbohydrates
		CO2- Understanding stereo isomerism, geometrical isomerism and optical activity of compounds
		CO3- Study about the nitroalkane preparation properties, structure. Reagent and their application mechanism of naming reaction.
		CO4- know the completely study of conformation analysis of compounds

		CO5- Study about the hetrocyclic compounds
Core theory-V	Physical chemistry	CO1- know about the completely study of solutions derivation of Gibbs duhem equation, nertst distribution law
		CO2- Study about the phase rule.application of phase rule and thermal analysis,cooling curve
		CO3- completely study of colligative properties and chemical equilibrium,vont Hoff reaction
		CO4- Studying about specific and equivalent conductance,Debye Huckels theory and mobility of ions
		CO5- knowing about application of conductometric measurements,concept of pH,buffer solutions, Henderson equation and hydrolysis of solid
Elective paper I	Analytical Chemistry I	CO1- Important knowledge about data analysis, purification of organic compound
		CO2- Study about purification of liquid, gravimetric analysis and electro magnetic radiation
		CO3- Study about the micro wave spectroscopy,UV visible spectroscopy and types of electronic transition
		CO4- Study about IR spectroscopy and their application
		CO5- know about the completely study of Raman spectroscopy and their application
Elective paper II	pharmaceutical Chemistry	CO1- impart knowledge about various disease and their treatment
		CO2- knowing about Indian medicinal plants and their uses,blood function, control of anemia and diabetes
		CO3- study about sulpha drugs vitamins,antiseptic and disinfection
		CO-4 Knowing completely study of analgesics and anesthetic,drugs affecting CNS
		CO5- Study about antineoplastic drugs,Harmons and their classification

SBS-I	Applied Chemistry	CO1- know about completely study of gases fuel
		CO2- knowing about manufacturing pulp and paper technology
		CO3- study about sugar industry in India, recovery of glucose from molasses and preparation of Bagasse
		CO-4 Study the explosive, photography and coal
		CO5- know about the completely study of milk and milk product, chemical change in milk
Core Theory-VI	INORGANIC CHEMISTRY II	CO1- Know the important knowledge of nuclear chemistry
		CO2- study about Radio activity
		CO3- Have a Know about metallurgy
		CO4- Know the inner transition elements
		CO5- Study the organometallic and Bioinorganic compounds
Core Practical-III	Gravimetric estimation	CO1- Estimation of Sulphate as Barium sulphate
		CO2- Estimation of Barium as Barium sulphate
		CO3- Estimation of Barium as Barium chromate
Core theory-VI	organic Chemistry II	CO1- Know the complete study about Molecular rearrangement
		CO2- Studying Amino acids and Polypeptides
		CO3- Have a knowledge Protein and Nucleic acid
		CO4- Identify the concept chemistry of natural product
		CO5- Study about Organo- synthesis reagents
Core Practical-III	Organic qualitative analysis and	CO1- Identification of Functional group
		CO2- Organic preparation Nitration, Acylation

VI		preparation	CO3- Organic preparation Oxidation, halogenation and hydrolysis
	Core theory-VI	Physical chemistry	CO1- Impart Knowledge about electrochemistry
			CO2- Derivation of Nernst equation and polarization
			CO3- Impart Knowledge about surface chemistry
			CO4- Studying about chemical kinetics
			CO5- knowing about photochemistry
	Core Practical-III	Physical chemistry practical I	CO1- knowing kinetic reaction
			CO2- Finding molecular weight
			CO3- Knowing electrochemistry reaction
			CO4- known the potentiometric titration
			CO5- Knowing about calorimetric reaction
	Elective paper III	Analytical Chemistry II	CO1- Important knowledge about Chromatography
			CO2- Study about TLC and paper, ion exchange Chromatography
			CO3- Knowing ideas about HPLC
			CO4- Study about NMR spectroscopy
			CO5- Study about mass spectroscopy
	SBS IV	Agriculture and leather Chemistry	CO1- Study about soil Chemistry
			CO2- knowing about Fertilizer and Manures
			CO3- study about Insecticides and Fungus
CO-4 Knowing about leather Chemistry			
CO5- Study about Tannery effluents			

M.SC. CHEMISTRY

Programme Outcome(POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	Determine molecular structure by using UV, IR and NMR.
2	PO2	Synthesis of Natural products and drugs by using proper mechanisms
3	PO3	Solve the reaction mechanisms and assign the final product.
4	PO4	. Determine the aromaticity of different compounds.

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Know the structure and bonding in molecules/ ions and predict the Structure of molecule/ions.
2	PO2	Study of free radical, bicyclic compound, conjugate addition of Enolates and pericyclic reactions.
3	PO3	Study of free radical, bicyclic compound, conjugate addition of Enolates and pericyclic reactions.
4	PO4	Understand good laboratory practices and safety.

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
	Main	Organic Chemistry- I	CO1 Concept of stereochemistry
			CO2 Conformational analysis and their application
			CO3 Mechanism of aliphatic substitution reactions
			CO4 To understand the Elimination reactions
			CO5 Mechanism of nucleophilic and electrophilic substitution reactions
	Main	Inorganic Chemistry- 1	CO1 To learn about the Inorganic polymers
			CO2 To know the Boron hydrides
			CO3 Concept of coordination chemistry

I			CO4 Stability of the complexes
			CO5 To know about the structure of bonding of inorganic compounds
	Main	Physical Chemistry- I	CO1 To study the partial molar property
			CO2 To acquire knowledge on phase equilibria of three component system
			CO3 To study the basics of colloids
			CO4 Theories and basic concept of chemical kinetics
			CO5 Mechanism of acid, base and enzyme catalysis reaction
	ELECTIVE	Advanced polymer chemistry	CO1 To learn about basic concept of polymers
			CO2 Kinetics and mechanism of polymers
			CO3 Structure and properties of polymers
			CO4 To learn about industrial and natural polymers
			CO5 Advances in polymers
	Core Theory-II	Organic Chemistry-II	CO1- Know the addition to carbon-carbon and carbon hetero multiple bonds
			CO2- study about oxidation and reduction reaction of some organic compounds
			CO3- Have a Knowledge about molecular rearrangement
CO4- the modern synthetic methods reaction and reagent			
CO5- Study heterocycles, vitamins and steroids compound			
Core Theory-II	Inorganic chemistry-II	CO1- Have a complete Knowledge about the chemistry of solid state	
		CO2- study the introduction of nuclear chemistry	
		CO3- Have a complete Knowledge about nuclear reactor in various methods	
		CO4- to study the chemistry of lanthanides and actinides in nanotech	
		CO5- Clarify Basic knowledge of bioinorganic chemistry	
		CO1- Know the complete study about chemical kinetics and fast reaction	

II	Core Theory-II	physical chemistry-II	CO2- Studying in basic electrochemistry reaction
			CO3- Have a knowledge of anode and cathode reaction
			CO4- Identify the group theory in elements
			CO5- Study about types of group theory and its application
	Elective-II	Green chemistry	CO1- Have a complete Knowledge about the basic principle of green chemistry
			CO2- study the uv sound and microwaves
			CO3- Have a complete Knowledge about the green synthesis compounds
			CO4- have a knowledge of ionic liq and green solvents
			CO5- studied about the industrial case studies
	core practical-I	organic Chemistry-I	CO1- Impart Knowledge about identification of organic compound in mixture
			CO2- to get knowledge about the preparation of some organic compounds
	core practical-I	inorganic chemistry-I	CO1- study about the knowledge semimicro qualitative analysis of mixture contain two common and two rare cation
			CO2- to get knowledge about the complexometric titration
			CO3- to get knowledge of the preparation inorganic complex
	core practical-I	physical chemistry-I	CO1- knowledge about physical methods in non electrical instruments
			CO2- clarify the concept of thermodynamically colligative properties
CO3- to study the experiments of phase rule and chemical equilibrium			
			CO1 Understand the factors affecting UV-absorption spectra, Interpret IR-spectra on basic values of IR-frequencies.
			CO2 Discuss the problem of Proton NMR and Carbon-13 NMR

III

III	Main	Organic Chemistry- III	CO3 Study of mass spectrometry: Instrumentation, various methods of ionization. Different detectors rules of fragmentations of different functional groups.
			CO4 Study alkaloids and Teroenoids with their structure elucidation
			CO5 Learning the free radicals and understanding name reactions based on free radicals
	Main	Inorganic Chemistry- III	CO1 Study the different types of Carbon Donars And different types of Reactions
			CO2 Know the Various Catalysis
			CO3 Learning Complementary, non-complementary electron transfer reactions
			CO4 Understand the Substitution in square planar complexes and reactivity
			CO5 Know Photo-substitution, Photoredox and isomerisation process Inorganic Photochemistry
	Main	Physical Chemistry- III	CO1 Learn Mechanism of electrode reactions
			CO2 Know Classification of Solids and Magnetic properties
			CO3 Learn the Raman, Electronic and Microwave Spectrascopy and its application.
			CO4 Study the Zeeman effect, ^{13}C , ^{19}F , ^{31}P NMR spectra - applications
			CO5 Understand Fermi - Dirac and Bose - Einstein statistics, Partition function
	ELECTIVE	Scientific Research Methodology	CO1 Know Nature and importance of research
			CO2 Learn Analysis and methods of separation Techniques
			CO3 Understand the accuracy and precision and classification error.
CO4 Know the students test, F test and Q test			

			CO5 Realise Thesis and Assignment writing format
IV	Main	Organic Chemistry-IV	CO1- Know the study of aromaticity
			CO2- study about the introduction of photochemistry
			CO3- Have a Knowledge about protein and nuclic acid
			CO4- Have study of the human antibiotics compounds
			CO5- Study of organic dyes compounds
	Main	Inorganic chemistry-IV	CO1- Have a complete Knowledge about the basic inorganic spectra
			CO2- study the introduction of inorganic spectra
			CO3- Have a complete Knowledge about instrumentation of inorganic spectra
			CO4- To study the inorganic compound instrumental analysis
			CO5- Glarify Basic knowledge of spectra in inorganic chemistry
	Main	physical chemistry-IV	CO1- Know the complete study about the introduction of inorganic photochemistry
			CO2- Studying in basic elemental analysis
			CO3- Have a knowledge of photo reduction and oxidation
			CO4- Identify the basic quantum chemistry
			CO5- Study about the statistical thermodynamics
	Elective-IV	Environmental chemistry	CO1- Have a complete Knowledge about the air and water pollution
			CO2- study the air and water pollution controled
			CO3- Have a complete Knowledge about the sampling and analysis of air and water
			CO4- have a knowledge of noise pollution
			CO5- studied about the indian and other radio active pollution in some material
core practical-II	organic Chemistry-II	CO1- Impart Knowledge about two stage preparation of organic compounds	

core practical-II	organic Chemistry-II	CO2- to get knowledge about the estimation of some organic compounds
core practical-II	inorganic chemistry-II	CO1- study about the knowledge of volumetric and gravimetric estimated
		CO2- to get knowledge about the complexometric titration
		CO3- to get knowledge of the preparation inorganic complex
core practical-II	physical chemistry-II	CO1- knowledge about the conductometric titration method
		CO2- clarify the concept of the photometric titration methods
		CO3- to study the experiments related interpretation of the spectrum

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of Computer Science

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	Understand fundamental concepts of key areas in Computer Science and enable students expose technical, analytical and creative skills.
2	PO2	Build student's effective communication, ethical attitudes, team work and logical proficiency
3	PO3	Students are to be passionately engaged in primary learning with intend to think differently, understanding and applying knowledge of mathematical, algorithmic and computing skills to acquire employability.
4	PO4	Students are to be imparted with a broad conceptual background in the Computing sciences to design, implement and evaluate a computational system.

Programme Specific Outcome (PSO)

S.No.	POS Number	POS Statements
1	PO1	Possess basic knowledge on core concepts of Computer Science the knowledge of Computer Science through theory and practicals.
2	PO2	Apply problem-solving skills and the knowledge of programming languages in computer science to solve real world problems.
3	PO3	Empowered with analytical mind and critical thinking.
4	PO4	Develop practical skills to fulfill the needs of industry and society

Course Outcome (Cos)

Semster	Course	Title of the Course	Course Outcome
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I	Core-I	Programming in C	CO1 The Student will be able to understand the concepts of Constants, Variables, and Data Types, Operators and Expressions
			CO2 The Student will be able to understand the concepts of Managing Input and Output Operations, Decision Making and Branching, Decision Making and Looping
			CO3 The Student will be able to understand the concepts of Arrays, Character Arrays and Strings, User Defined Functions.
			CO4 The Student will be able to understand the concepts of Structure and Unions, Pointers, File Management in C.
			CO5 The Student will be able to understand the concepts of Fundamental Algorithms, Factoring Methods
	Allied - I	Mathematics - I	CO1 Evaluate the validity of logical arguments and construct mathematical proofs.
			CO2 Analyse whether given graphs are isomorphic and apply different algorithms to find the shortest path
			CO3 Apply the concept of two dimensional random variables to correlation, regression and Central limit theorem
			CO4 Learn and apply multivariate analysis necessary for Principal Component Analysis
			CO5 Identify the Markovian queueing model in the given system, find the performance measures and analyse the results.
			CO1 Enhance the analyzing and problem solving skills and use the same for writing programs in C

II	Practical - I	Programming in C Lab	CO2 Write diversified solutions, draw flowcharts and develop a well-documented and indented program according to coding standards
			CO3 Learn to debug a given program and execute the C program.
			CO4 To have enough practice the use of conditional and looping statements.
			CO5 To implement arrays, functions and pointers.
	Core-II	C++& Data Structures	CO1 The Student will be able to understand the concepts of object oriented programming Apply structure and inline functions.
			CO2 The Student will be able to understand the concepts of the types of inheritances and Applying various levels of Inheritance for real time problems Apply the OOPs concepts class and object. Understand Explain the file concept and exception handlings in C++ .
			CO3 The Student will be able to understand the concepts of Stacks and Queue using array and pointers.
			CO4 The Student will be able to understand the concepts of Recursion, Binary Search Tree and graphs.
			CO5 The Student will be able to understand the concepts of Sorting and Searching Algorithms.
	Allied - I	Mathematics - II	CO1 Ability to apply mathematical logic to solve problems.
			CO2 Understand sets, relations, functions, and discrete structures.
			CO3 Able to use logical notation to define and reason about fundamental mathematical concepts such as sets, relations, and functions
			CO4 Able to formulate problems and solve recurrence relations.

		CO5 Able to model and solve real-world problems using graphs and trees.
Practical - II	C++ and Data Structure lab	CO1 Understand the Creating and Deleting the Objects with the Concepts of Constructors and Destructors.
		CO2 Demonstrate the Polymorphism Concepts and Operator Overloading.
		CO3 Understand basic Data Structures such as Arrays, Linked Lists, Stacks, Queues, Doubly Linked List and Infix to Postfix Conversion.
		CO4 Apply Algorithm for solving problems like Sorting and Searching.
		CO5 Apply Algorithms and use Graphs and Trees as tools to visualize and simplify Problems
Core-III	Java Programming	CO1 Identify classes, objects, members of a class and relationships among them needed for a specific problem
		CO2 Write Java application programs using OOP principles and proper program structuring
		CO3 Demonstrate the concepts of polymorphism and inheritance
		CO4 Write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE
		CO5 Write Java programs to implement error handling techniques using exception handling
Allied - II	Statistical Methods and their Applications - II	CO1 Use the basic probability rules, including additive and multiplicative laws, using the terms, independent and mutually exclusive events
		CO2 Analyze statistical data graphically using frequency distributions and cumulative frequency distributions
		CO3 Derive the probability density function of transformation of random variables

III			CO4 Calculate probabilities, and derive the marginal and conditional distributions of bivariate random variables
			CO5 Translate real-world problems into probability models
	Practical - III	Java Programming Lab	CO1 Describe the features of Java
			CO2 Design classes with object-oriented features
			CO3 Describe advanced features of Java like exception handling, multithreading etc.
			CO4 Write programs in JAVA featuring its core capabilities
			CO5 Able to know JDBC and ODBC Connectivity
	Skill Based - I	Design & Analysis of Algorithm	CO1. Analyze algorithms and improve the efficiency of algorithm.
			CO2. Apply different designing methods for development of algorithms realistic problems, such as divide and conquer, greedy method and etc.
			CO3. Construct minimal spanning trees and find shortest path Between source and sink.
			CO4. Analyze and estimate the performance of algorithm.
			CO5. Describe the notations of P, NP, NP-complete, and N Phard.
	Core-IV	Database Management Systems	CO1. Demonstrate the basic elements of a relational database management system.
			CO2. Identify data models for relevant problems.
			CO3. Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data.
CO4. Apply normalization for the development of application software's.			
CO5. Design and implement a full real size database system			
			CO1 Describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis

IV	Allied - II	Statistical Methods and their Applications II	CO2 Critically evaluate the underlying assumptions of analysis tools
			CO3 Understand and critically discuss the issues surrounding sampling and significance
			CO4 Discuss critically the uses and limitations of statistical analysis
			CO5 Solve a range of problems using the techniques covered
	Practical - IV	RDBMS LAB	CO1.Design and implement a database schema for given problem.
			CO2. Capable to design and build a GUI application.
			CO3. Apply the normalization techniques for development of application software to realistic problems.
			CO4. Formulate queries using SQL DML/DDI/DCL commands.
			CO5. Search trees, and hash tables to solve various computing problems
	Skill Based - II	Computer Organisation and Architecture	CO1 Describe the fundamental organisation of a computer system
			CO2 Explain the functional units of a processor
			CO3 Explain addressing modes, instruction formats and program control statements
			CO4 Distinguish the organization of various parts of a system memory hierarchy
			CO5 Describe fundamentals concepts of pipeline and vector processing
	Core-V	Mobile Application Development	CO1 Understands the basic technologies used by the Android platform. Recognizes the structure of an Android application project. Uses the tools necessary for Android application project.
CO2 Use built-in widgets and components			
CO3 Work with the database to store data locally,			
CO4 Recognizes and uses Android Environment Emulator and Application life cycle			
CO5 Defines user interfaces using XML layouts			

Core-VI	Operating System	CO1 To understand the main components of an OS & their Functions
		CO2 To study the process management and scheduling.
		CO3 To understand various issues in Inter Process Communication (IPC) and the role of OS in IPC.
		CO4 To understand the concepts and implementation Memory management policies and virtual memory
		CO5 To understand the working of an OS as a resource manager, file system manager, process manager, memory manager and I/O manager and methods used to implement the different parts of OS
Core-VII	Data Communication & Network	CO1 Understand the rudiments of how computers communicate
		CO2 Be familiar with the architecture of a number of different networks
		CO3 Understand the principles of protocol layering
		CO4 Be familiar with modern telecommunications.
		CO5 Understand about WWW and Working of E-Mail
Practical - V	Mobile Applications Development - Lab	CO1 Demonstrate the android features and create ,develop using android
		CO2 Demonstrate and Understanding anatomy of an Android application
		CO3 Apply the android geo location based services
		CO4 Illustrate the android wifi features and advance android development
		CO5 Demonstrate the linux security and implement ADL interface
		CO1 Demonstrate the fundamental UNIX commands & system calls

Practical - VI	Operating System - Lab	CO2 Apply the scheduling algorithms for the given problem
		CO3 Apply the process synchronous concept using message queue, shared memory, semaphore and Dekker's algorithm for the given situation
		CO4 Experiment an algorithm to detect and avoid dead lock
		CO5 Demonstrate the various operations of file system
Skill Based - III	Software Engineering	CO1.Adapt the basic software engineering methods and practices in their appropriate applications
		CO2. Distinguish the various software process models such as waterfall model, evolutionary models, etc.
		CO3. Compose the requirements document by understanding the software requirements
		CO4. Relate the software architectural styles to the suitable applications.
		CO5. Determine the need for, and an ability to engage in, life-long learning.
Elective - I	Computer Graphics	CO1: Understand input and output devices of computer.
		CO2: Understand how to scan convert the basic geometrical primitives, how to transform the shapes to fit them as per the picture definition.
		CO3: Visualize the colors in computer graphics.
		CO4: Comprehend and analyze the fundamentals of animation.
		CO5 : Knowing about virtual reality, underlying technologies, principles, and applications.
Core-VIII	Cloud Computing	CO1. Analyze the virtualization and cloud computing concepts.
		CO2. Learn the architecture, deployment models, and infrastructure models of Cloud Computing.
		CO3. Demonstrate knowledge on the cloud computing security, federation, presence, identity, and privacy

		CO4. Familiar with open source cloud computing software, and free/commercial cloud services.
		CO5. Learn the privacy policy of cloud providers
Core-IX	Open Source Programming	CO1 Implement various applications using build systems
		CO2 Understand the installation of various packages in open source operating systems
		CO3 Create simple GUI applications Using Visual Basic.
		CO4 Understand various version control systems
		CO5 Understand the kernel configuration and virtual environment
Practical - VII	ASP .NET Lab	CO1 Able to design web applications using ASP.NET
		CO2 Students will be able to use ASP.NET controls in web applications
		CO3 Students will be able to debug and deploy ASP.NET web applications
		CO4 Students will be able to create database driven ASP.NET web applications and web
		CO5 Performing Database operations for Windows Form and web applications.
Practical - VIII	Open Source Programming - Lab	CO1 Demonstrate the installation process of various operating systems.
		CO2 Implement virtualization by installing Virtual Machine software.
		CO3 Apply UNIX/LINUX operating system commands.
		CO4 Understand different UNIX/LINUX shell scripts
		CO5 execute various shell programs.
		CO1 Understand and identify the GSM, GPRS and Bluetooth software model for mobile computing
		CO2 The ability to develop applications that are mobile-device specific and demonstrate current practice in mobile computing contexts.

	Elective II	Mobile Computing	CO3 Understanding of the characteristics and limitations of mobile hardware devices including their user-interface modalities
			CO4 Analyze QoS over wire and wireless channels
			CO5 Able to promote the awareness of the life-long learning, business ethics, professional ethics and current marketing scenarios.
	Elective III	Multimedia Systems	CO1 To learn and understand technical aspect of Multimedia Systems.
			CO2 To understand the standards available for different audio, video and text applications.
			CO3 To Design and develop various Multimedia Systems applicable in real time.
			CO4 To learn various multimedia authoring systems.
			CO5 To understand various networking aspects used for multimedia applications.
	Skill Based -IV	ASP .NET	CO1 Understand and explain ASP.NET Programming.
			CO2 Interpret the fundamental ASP.NET syntax and semantics.
			CO3 Understand the concept of scripting and the contributions of scripting languages.
			CO4 Articulate the Object-Oriented Programming concepts used in ASP.NET
			CO5 Connect a ASP.NET program with a database.

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution(to provide the weblink)

Department of Computer Science

Programme Outcome(POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	Understand the advanced concepts of key areas in Computer Science and enable students to expose technical, analytical and creative skills
2	PO2	Understanding and applying knowledge of mathematics, science, algorithmic and computing skills to acquire solution of complex scientific problems.
3	PO3	Students are to be imparted with a broad conceptual background in the Computing sciences to design, implement and evaluate a computational system.
4	PO4	Develop research oriented skills to identify, analyze and synthesize scholarly literature relating to the field of Computer Science.

Programme Specific Outcome(PSO)

S.No.	POS Number	POS Statements
1	PO1	Posses the knowledge in the field of Computer Science through theory and practicals.
2	PO2	Students will demonstrate high-level expertise in computer Science research and in the synthesis of research.
3	PO3	Communicate computer science concepts, designs, and solutions effectively and professionally.
4	PO4	Use software development tools, software systems, and modern computing platforms.

Course Outcome(COs)

Semster	Course	Title of the Course	Course Outcome
			CO1 - Students are able to have a broad understanding of database concepts and databasemanagement system software

Core-I	Relational DataBase Management System	CO2 - Students are able to have a high-level understanding of major DBMS components and their function
		conceptual modeling tools like ER diagrams and design database schemas based on the conceptual model.
		CO4 - Students are able to write SQL commands to create tables and indexes, insert/update/delete data, and query data in a relational DBMS.
		CO5 - Students are able to program a data-intensive application using DBMS APIs
Core-II	Enterprise Java Programming	CO1 - Students are able to develop Applet Programming using various techniques
		CO2 - Students are able to develop applications using Abstract Window Toolkit and Events
		CO3 - Students are able to update and retrieve the data from the databases using JDBC-ODBC
		CO4 - Students are able to develop server side programs in the form of Servlets
		CO5 - Students are able to build up Java Applications using collections and JSP Tags.
Core-III	Programming using C#.Net	CO1 - Students are able to know the differences between desktop application and web application.
		CO2 - Students are able to construct classes, methods, and access modifier and instantiate objects.
		CO3 - Students are able to create and manipulate GUI components in C# for windows application.
		CO4 - Students are able to code solutions and compile C# projects within the .NET framework.
		CO5 - Students are able to build the desktop application with Database.

Core Practical I	Enterprise Java Programming (Lab)	CO1 Learn the Internet Programming, using Java Applets.
		CO2 Apply event handling on AWT and Swing components.
		CO3 Create a full set of UI widgets and other components, including windows, menus, buttons, checkboxes, text fields, scrollbars and scrolling lists, using Abstract Windowing Toolkit (AWT) & Swings.
		CO4 Learn to access database through Java programs, using Java Data Base Connectivity (JDBC).
		CO5 Create dynamic web pages, using Servlets and JSP.
Core Practical II	Programming using C#.Net(Lab)	CO1 Create user interactive web pages using ASP.Net.
		CO2 Create simple data binding applications using ADO.Net connectivity.
		CO3 Performing Database operations for Windows Form and web applications.
		CO4 Develop dynamic web applications, create and consume web services.
		CO5 Use appropriate data sources and data bindings in ASP.NET web applications.
Core Practical III	Relational DataBase Management System (Lab)	CO1 Apply the basic concepts of Database Systems and Applications.
		CO2 Use the basics of SQL and construct queries using SQL in database creation and interaction.
		CO3 Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.
		CO4 Analyze and Select storage and recovery techniques of database system.
		CO5 Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B tree, and hashing.
		CO1 - Students are able to identify the types of instructions and the organization of registers and memory

Elective I	Computer Organization	CO2 - Students are able to describe the translation model of assembly language to machine language.
		CO3 - Students are able to understand the micro-program by mapping the instructions.
		CO4 - Students are able to recognize the types of computer organizations.
		CO5 - Students are able to accept the better way of processing by Parallel and Vector processing.
Elective I	Public Speaking and Creative Writing	CO1 The student will learn how to appreciate and analyze the poems
		CO2 The student will get an idea of how to write poem
		CO3 The student will receive the adequate knowledge about the paragraph writing
		CO4 The student will become a good writer after getting the ideas about writing methods
		CO5 The student will be able to know how to differentiate between fiction and nonfictional writings
Core-IV	Advanced Enterprise Java Programming	CO1 - Students are able to work with JSP, JSF and Servlet using MVC approach
		CO2 - Students are able to develop the web applications using the MVC framework provided by Apache Struts
		CO3 - Students are able to develop Enterprise web application using EJB.
		CO4 - Students are able to implement the Object-Relation Mapping technique using Hibernate
		CO5 - Students are able to get knowledge of Aspect Oriented Programming using Spring and Spring MVC.

Core-V	Design and Analysis of Algorithm	CO1 - Students are able to prove the correctness and analyze the running time of the basic algorithms for those classic problems.
		CO2 - Students are able to understand the basic knowledge of algorithm design and its implementation.
		CO3 - Students are able to learn the key techniques of Divide-and-Conquer and Greedy Method.
		CO4 - Students are able to recognize the concept of Dynamic Programming and its algorithms
		CO5 - Students are able to familiarize with Backtracking algorithms.
		CO6 - Students are able to understand Branch and Bound techniques for designing and analyzing algorithms.
Core-VI	Web Applications using C#	CO1 Understand basic concept of .NET using C#
		CO2 Design and develop web app interfaces with database connectivity
		CO3 Can know about web services, AJAX and MVC
		CO4 Build a graphical user interface by using XML.
		CO5 Create and use an entity data model for accessing a database and use LINQ to query and update data.
Core Practical IV	Advanced Enterprise Java Programming Lab.	CO1 Enhanced Java Programming Skills such as abstract Windows Toolkit, Java Input Output, Networking
		CO2 Develop applications using JDBC, RMI, Java Beans
		CO3 Develop applications using servlets, JSP and spring-hibernate
		CO4 Design and develop applications using servlets, JSP and spring-hibernate
		CO5 Design and Develop server side applications with database Connectivity
		CO1 - Students are able to prove the correctness and analyze the running time of the basic algorithms for those classic problems.

Core Practical V	Design and Analysis of Algorithm (Lab)	CO2 - Students are able to understand the basic knowledge of algorithm design and its implementation.
		CO3 - Students are able to learn the key techniques of Divide-and-Conquer and Greedy Method.
		CO4 - Students are able to recognize the concept of Dynamic Programming and its algorithms
		CO5 - Students are able to familiarize with Backtracking algorithms.
		CO6 - Students are able to understand Branch and Bound techniques for designing and analyzing algorithms.
Core Practical VI	Web Application using c#.NET	CO1 Implement the basic concepts of C#.
		CO2 Demonstrate the concepts of Object Oriented Concepts in C#
		CO3 Use Exception Handling for testing and debugging.
		CO4 Develop Graphical User Interface and work with database.
		CO5 Develop a real world projects using C# and Evaluate it.
Elective II	Social Information N/W	CO1 - Students are able to clear understanding of real world applications
		CO2 - Students are able to comprehend the elements of the social network
		CO3 - Students are able to demonstrate and envision the social network
		CO4 - Students are able to understand the role of web in the social network
		CO5 - Students are able to apply the concept of social network in appropriate application
		CO1 Clear understanding on several resource management techniques like distributed shared memory and other resources.

Core-IX	Distributed Operating Systems	CO2 Knowledge on mutual exclusion and Deadlock detection of Distributed operating system.
		CO3 Able to design and implement algorithms of distributed shared memory and commit protocols.
		CO4 Able to design and implement fault tolerant distributed systems
		CO5 Learn the structure and design issues of Multiprocessor and Database Operating Systems.
Core-X	Software Project Management	CO1 Analyze the scope, cost, timing, and quality of the project, at all times focused on project success as defined by project stakeholders.
		CO2 Align the project to the organization's strategic plans and business justification throughout its lifecycle/
		CO3 Identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders.
		CO4 Implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success.
		CO5 Adapt projects in response to issues that arise internally and externally.
Core-XI	Mobile Computing	CO1 Understand and identify the GSM, GPRS and Bluetooth software model for mobile computing
		CO2 The ability to develop applications that are mobile-device specific and demonstrate current practice in mobile computing contexts
		CO3 Understanding of the characteristics and limitations of mobile hardware devices including their user-interface modalities
		CO4 Analyze QoS over wire and wireless channels
		CO5 Able to know about different types of OS that are used in different devices.
		CO1 Understand fundamental algorithmic design concepts and techniques for computational problem solving.
		CO2 Apply an appropriate algorithm design techniques for solving problem.

Core-XII	Design and Analysis of Algorithms	CO3 Ability to analyze the performance of algorithms by comparing the efficiency of algorithms with asymptotic complexity.
		CO4 Ability to design algorithms using standard paradigms like: Greedy, Divide and Conquer, Dynamic Programming Backtracking and branch and bound.
		CO5 Ability to understand P & NP class problems for formulating solutions using standard approaches.
Core Practical VII	Mobile Computing Lab	CO1 demonstrate their understanding of the fundamentals of Android operating systems
		CO2 demonstrate their skills of using Android software development tools
		CO3 demonstrate their ability to develop software with reasonable complexity on mobile platform
		CO4 Demonstrate their ability to deploy software to mobile devices
		CO5 Demonstrate their ability to debug programs running on mobile devices
Core Practical VIII	Design and Analysis of Algorithms Lab	CO1 Ability to analyze the performance of algorithms
		CO2 Ability to choose appropriate algorithm design techniques for solving problems.
		CO3 Ability to understand how the choice of data structures and the algorithm design methods impact the performance of programs.
		CO4 To clear up troubles the usage of set of rules design methods including the grasping approach, divide and overcome, dynamic programming, backtracking and department and certain.
		CO5 To understand the variations among tractable and intractable problems.
Core Practical IX	Mini Project	CO1 Students will be able to practice acquired knowledge within the chosen area of technology for project development.
		CO2 Identify, discuss and justify the technical aspects of the chosen project with a comprehensive and systematic approach.
		CO3 Reproduce, improve and refine technical aspects for engineering projects.

			CO4 Work as an individual or in a team in development of technical projects.
			CO5 Communicate and report effectively project related activities and findings.
	Elective III	Software Quality Assurance	CO1 Describe fundamental concepts of software quality assurance.
			CO2 Understand fundamental concepts of software automation.
			CO3 Apply Selenium automation tool for testing web based application.
			CO4 Demonstrate the quality management, assurance, and quality standard to software system.
			CO5 Demonstrate Software Quality Tools and analyze their effectiveness.
IV	Core-XIII	Project work	CO1 Understand project domain knowledge
			CO2 Analyze and Design project documentation
			CO3 Complete an independent research project, resulting in at least a thesis publication, and research outputs in terms of publications in high impact factor journals, conference proceedings, and patents.
			CO4 Demonstrate knowledge of contemporary issues in their chosen field of research.
			CO5 Demonstrate an ability to present and defend their research work to a panel of experts.

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of Computer Application

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	Understand fundamental concepts of key areas in Computer Application and enable students expose technical, analytical and creative skills.
2	PO2	Build student's effective communication, ethical attitudes, team work and logical proficiency
3	PO3	Students are to be passionately engaged in primary learning with intend to think differently, understanding and applying knowledge of mathematical, algorithmic and computing skills to acquire employability.
4	PO4	Students are to be imparted with a broad conceptual background in the Computing sciences to design, implement and evaluate a computational system.

Programme Specific Outcome (PSO)

S.No.	POS Number	POS Statements
1	PSO1	Possess basic knowledge on core concepts of Computer Application the knowledge of Computer Science through theory and practicals.
2	PSO2	Apply problem-solving skills and the knowledge of programming languages in computer science to solve real world problems.
3	PSO3	Empowered with analytical mind and critical thinking.
4	PSO4	Develop practical skills to fulfill the needs of industry and society

Course Outcome (Cos)

Semster	Course	Title of the Course	Course Outcome
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I	Core-I	Programming in C	CO1 The Student will be able to understand the concepts of Constants, Variables, and Data Types, Operators and Expressions
			CO2 The Student will be able to understand the concepts of Managing Input and Output Operations, Decision Making and Branching, Decision Making and Looping
			CO3 The Student will be able to understand the concepts of Arrays, Character Arrays and Strings, User Defined Functions.
			CO4 The Student will be able to understand the concepts of Structure and Unions, Pointers, File Management in C.
			CO5 The Student will be able to understand the concepts of Fundamental Algorithms, Factoring Methods
	Allied - I	Mathematical Foundation I	CO1 Evaluate the validity of logical arguments and construct mathematical proofs.
			CO2 Analyse whether given graphs are isomorphic and apply different algorithms to find the shortest path
			CO3 Apply the concept of two dimensional random variables to correlation, regression and Central limit theorem
			CO4 Learn and apply multivariate analysis necessary for Principal Component Analysis
			CO5 Identify the Markovian queueing model in the given system, find the performance measures and analyse the results.
	Practical - I	Programming in C Lab	CO1 Enhance the analyzing and problem solving skills and use the same for writing programs in C
			CO2 Write diversified solutions, draw flowcharts and develop a well-documented and indented program according to coding standards
			CO3 Learn to debug a given program and execute the C program.
			CO4 To have enough practice the use of conditional and looping statements.
			CO5 To implement arrays, functions and pointers.
Core-II	C++ & Data Structure	CO1 The Student will be able to understand the concepts of object oriented programming Apply structure and inline functions.	
		CO2 The Student will be able to understand the concepts of the types of inheritances and Applying various levels of Inheritance for real time problems Apply the OOPs concepts class and object. Understand Explain the file concept and exception handlings in C++ .	

II

II	Core-II	C++ & Data Structure	CO3 The Student will be able to understand the concepts of Stacks and Queue using array and pointers.
			CO4 The Student will be able to understand the concepts of Recursion, Binary Search Tree and graphs.
			CO5 The Student will be able to understand the concepts of Sorting and Searching Algorithms.
	Allied - I	Mathematical Foundation II	CO1 Ability to apply mathematical logic to solve problems.
			CO2 Understand sets, relations, functions, and discrete structures.
			CO3 Able to use logical notation to define and reason about fundamental mathematical concepts such as sets, relations, and functions
			CO4 Able to formulate problems and solve recurrence relations.
			CO5 Able to model and solve real-world problems using graphs and trees.
	Practical - II	C++ and Data Structure lab	CO1 Understand the Creating and Deleting the Objects with the Concepts of Constructors and Destructors.
			CO2 Demonstrate the Polymorphism Concepts and Operator Overloading.
			CO3 Understand basic Data Structures such as Arrays, Linked Lists, Stacks, Queues,
			CO4 Apply Algorithm for solving problems like Sorting and Searching.
			CO5 Apply Algorithms and use Graphs and Trees as tools to visualize and simplify Problems
	Core-III	Java Programming	CO1 Identify classes, objects, members of a class and relationships among them needed for a specific problem
			CO2 Write Java application programs using OOP principles and proper program structuring
CO3 Demonstrate the concepts of polymorphism and inheritance			
CO4 Write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE			
CO5 Write Java programs to implement error handling techniques using exception handling			
			CO1 Define book keeping and accounting
			CO2 Explain the general purpose and functions of accounting

III	Allied - II	Financial Accounting I	CO3 Explain the difference between financial and management accounting
			CO4 Describe the main element of financial accounting information - assets, liabilities, revenue and expenses
			CO5 Identify the main financial statements and their purposes
	Practical - III	Java Programming Lab	CO1 Describe the features of Java
			CO2 Design classes with object-oriented features
			CO3 Describe advanced features of Java like exception handling, multithreading etc.
			CO4 Write programs in JAVA featuring its core capabilities
			CO5 Able to know JDBC and ODBC Connectivity
	Core - IV	E-Commerce	CO1 Explain basic concepts of E-Commerce
			CO2 Define and demonstrate the use of firewalls in Network Security
			CO3 Design and implement a World Wide Web
			CO4 Design and implement EDI and its applications
			CO5 Make Digital library & advertising in a Internet
	Skill Based - I	Web Technology	CO1. Analyze a web page and identify its elements and attributes
			CO2. Create web pages using XHTML and Cascading Style Sheets
CO3. Build dynamic web pages using JavaScript (Client side programming).			
CO4. Create XML documents and Schemas			
CO5 Build interactive web applications using AJAX.			
Core-VI	Relational Database Management Systems	CO1. Demonstrate the basic elements of a relational database management system.	
		CO2. Identify data models for relevant problems.	
		CO3. Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data.	
		CO4. Apply normalization for the development of application software's.	
		CO5. Design and implement a full real size database system	
Allied - II	Financial	CO1 Preparing financial statements in accordance with appropriate standards.	
		CO2 Prepare ledger accounts using double entry bookkeeping and record journal entries accordingly	

IV

	Accounting II	CO3 Preparing accounting information for planning and control and for the evaluation of finance
		CO4 Interpreting the business implications of financial statement information
		CO5 Prepare Bank reconciliation statement from incomplete statement
Practical - IV	RDBMS LAB	CO1.Design and implement a database schema for given problem.
		CO2. Capable to design and build a GUI application.
		CO3. Apply the normalization techniques for development of application software to realistic problems.
		CO4. Formulate queries using SQL DML/DDI/DCL commands.
		CO5. Search trees, and hash tables to solve various computing problems
Core - VII	Enterprise Resource Planning	CO1 To Explain basic principles of ERP
		CO2 To Define and demonstrate the life cycle & methodology in ERP
		CO3 To Design and implement a business modules.
		CO4 Design and implement Packages in ERP.
		CO5 To Make present & future of ERP
Core - VIII	Wireless Data Communications	CO1 Explain the Classification of mobile communication systems
		CO2 Determine the type and appropriate model of wireless fading channel based on the system parameters and the property of the wireless medium
		CO3 Analyse and design receiver and transmitter diversity techniques.
		CO4 Analyze the radio channel characteristics and the cellular principle
		CO5 Ability to analyze improved data services in cellular communication
Skill Based - II	Internet Of Things	CO1 Analyze various protocols for IoT
		CO2 Develop web services to access/control IoT devices.
		CO3 Design a portable IoT using Rasperry Pi
		CO4 Deploy an IoT application and connect to the cloud.
		CO5 Analyze applications of IoT in real time scenario.
Core- IX	Mobile Application	CO1 Understands the basic technologies used by the Android platform. Recognizes the structure of an Android application project. Uses the tools necessary for Android application project.
		CO2 Use built-in widgets and components

V	Development	CO3 Work with the database to store data locally,	
		CO4 Recognizes and uses Android Environment Emulator and Application life cycle	
		CO5 Defines user interfaces using XML layouts	
	Core-X	Operating System	CO1 To understand the main components of an OS & their Functions
			CO2 To study the process management and scheduling.
			CO3 To understand various issues in Inter Process Communication (IPC) and the role of OS in IPC.
			CO4 To understand the concepts and implementation Memory management policies and virtual memory
			CO5 To understand the working of an OS as a resource manager, file system manager, process manager, memory manager and I/O manager and methods used to implement the different parts of OS
	Core-XI	Data Communication & Network	CO1 Understand the rudiments of how computers communicate
			CO2 Be familiar with the architecture of a number of different networks
			CO3 Understand the principles of protocol layering
			CO4 Be familiar with modern telecommunications.
			CO5 Understand about WWW and Working of E-Mail
	Practical - V	Mobile Applications Development - Lab	CO1 Demonstrate the android features and create ,develop using android
			CO2 Demonstrate and Understanding anatomy of an Android application
			CO3 Apply the android geo location based services
			CO4 Illustrate the android wifi features and advance
			CO5 Demonstrate the mutex security and implement ADL interface
Practical - VI	Operating System - Lab	CO1 Demonstrate the fundamental UNIX commands & system calls	
		CO2 Apply the scheduling algorithms for the given problem	
		CO3 Apply the process synchronous concept using message queue, shared memory, semaphore and Dekker's algorithm for the given situation	
		CO4 Experiment an algorithm to detect and avoid dead lock	
		CO5 Demonstrate the various operations of file system	
		CO1.Adapt the basic software engineering methods and practices in their appropriate applications	

	Skill Based - III	Software Engineering	CO2. Distinguish the various software process models such as waterfall model, evolutionary models, etc.
			CO3. Compose the requirements document by understanding the software requirements
			CO4. Relate the software architectural styles to the suitable applications.
			CO5. Determine the need for, and an ability to engage in, life-long learning.
	Elective - I	Data Mining	CO1 Understand Data Warehouse fundamentals and datamining Principles
			CO2 Design data warehouse with dimensional modelling and apply OLAP operations
			CO3 Identify appropriate data mining algorithms to solve real world problems
			clustering and association rule mining
			CO5 Describe complex data types with respect to spatial and web mining
Core-XII	Cloud Computing	CO1. Analyze the virtualization and cloud computing concepts.	
		CO2. Learn the architecture, deployment models, and infrastructure models of Cloud Computing.	
		CO3. Demonstrate knowledge on the cloud computing security, federation, presence, identity, and privacy	
		CO4. Familiar with open source cloud computing software, and free/commercial cloud services.	
		CO5. Learn the privacy policy of cloud providers	
Core-XIII	Open Source Programming	CO1 Implement various applications using build systems	
		CO2 Understand the installation of various packages in open source operating systems	
		CO3 Create simple GUI applications Using Visual Basic.	
		CO4 Understand various version control systems	
		CO5 Understand the kernel configuration and virtual environment	
Practical - VII	ASP .NET Lab	CO1 Able to design web applications using ASP.NET	
		CO2 Students will be able to use ASP.NET controls in web applications	
		CO3 Students will be able to debug and deploy ASP.NET web applications	
		CO4 Students will be able to create database driven ASP.NET web applications and web	
		CO5 Performing Database operations for Windows Form and web applications.	
			CO1 Demonstrate the installation process of various operating systems.

VI	Practical - VIII	Open Source Programming - Lab	CO2 Implement virtualization by installing Virtual Machine software.
			CO3 Apply UNIX/LINUX operating system commands.
			CO4 Understand different UNIX/LINUX shell scripts
			CO5 execute various shell programs.
	Elective II	Mobile Computing	CO1 Understand and identify the GSM, GPRS and Bluetooth software model for mobile computing
			CO2 The ability to develop applications that are mobile-device specific and demonstrate current practice in mobile computing contexts.
			CO3 Understanding of the characteristics and limitations of mobile hardware devices including their user-interface modalities
			CO4 Analyze QoS over wire and wireless channels
			CO5 Able to promote the awareness of the life-long learning, business ethics, professional ethics and current marketing scenarios.
	Elective III	Multimedia Systems	CO1 To learn and understand technical aspect of Multimedia Systems.
			CO2 To understand the standards available for different audio, video and text applications.
			CO3 To Design and develop various Multimedia Systems applicable in real time.
			CO4 To learn various multimedia authoring systems.
			CO5 To understand various networking aspects used for multimedia applications.
	Skill Based -IV	ASP .NET	CO1 Understand and explain ASP.NET Programming.
			CO2 Interpret the fundamental ASP.NET syntax and semantics.
			CO3 Understand the concept of scripting and the contributions of scripting languages.
			CO4 Articulate the Object-Oriented Programming concepts used in ASP.NET
			CO5 Connect a ASP.NET program with a database.

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of Commerce B.Com.

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able to gain the following

S.No.	PO Nu mbe	PO Statements
1	PO1	Students are able to gain a thorough basic knowledge in the fundamental of Commerce and Accounting.
2	PO2	The Curriculum offers a number of specializations and practical disclosures which would provide the student to face the contemporary challenge business activities
3	PO3	Further the students are encouraged with add on value based and job oriented courses which ensure them to the susta
4	PO4	Develop the ability to use a basic accounting system to create (record, classify, and

Programme Specific Outcome (PSO)

S.No.	PSO Nu	PSO Statements
1	PO1	Develop the ability to interact well with team members.
2	PO2	Employ marginal analysis for decision making
3	PO3	Analyze causes and consequences of unemployment, inflation and economic growth
4	PO4	Describe the concept of buyer persona and its importance for constructing effective marketing campaigns.

Course Outcome (Cos)

Semster	Course	Title of the Course	Course Outcome
	CORE - I	FINANCIAL ACCOUNTING -I	CO1 To learn the Accounting methods
			CO2 To become an accountant by profession
			CO3 To know the accounting methods.
			CO4 To operate the accounting transactions into systems without any mistakes.
			CO5 The students can gain knowledge about the basic principles and functions of Accountancy.

I	CORE -II	BUSINESS ORGANISATION	CO1 To critically evaluate the underlying assumptions of any business organisation.
			CO2 To learn the methods of structures of Joint Stock companies
			CO3 To discuss critically the uses and limitations of all the types of organisations
			CO4 To solve a range of problems faced by a business man in the market
			CO5 To conduct the important meetings along with the co operation of all the employees
	ALLIED	CONSUMER PROTECTION	CO1 To understand the expectations of consumer and the ways to satisfy them
			CO2 To understand the concept consumer protection
			CO3 To understand the rights of consumers
			CO4 To know the key points of the consumer protection act 2019
			CO5 To outline machinery for settlement of consumer grievances
II	ALLIED	MERCHANT BANKING	CO1 To know the types of services of Merchant Bankers
			CO2 To know the procedures for providing all necessary documentation and information
			CO3 To identify the Merchant bankers to know who can be a consultant, advisor, and underwriter.
			CO4 To classify the services provided by the merchant bankers
			CO5 To know the High exposure to risk since they deal with businesses
			CO1 To learn the Accounting methods
			CO2 To identify the accounting methods followed in branches of head offices of MNCs
			CO3 To Describe and explain the ethical and social responsibilities of accountants in ensuring the integrity of financial formation
			CO4 To Apply knowledge of federal tax laws and procedures to individuals and businesses

	CORE - III	FINANCIAL ACCOUNTG -II	CO5 To know the accounting systems followed in partnership form of business
			CO1 To know the types of insurance schemes Evaluating the firm's operating results.
			CO2 To Evaluate the varieties of insurance schemes.
			co3 To know the benefits to the business people when they avail the insurance policies
			co4 To know the procedures for claiming the policy amount after the incidence happens
	CORE -IV	ELEMENTS OF INSURANCE	CO5 To learn the procedures for compensation for the maturity of the policy
			CO1 To know the Accounts maintained by the corporates
			CO2 To learn the methods to Prepare the final accounts of Joint Stock companies
			CO3 To know the ways and Explain the concepts of Amalgamation and External Reconstruction
			CO4 To learn the ways to Prepare Liquidators Final Statement of Accounts
	CORE -V	CORPORATE ACCOUNTG -I	CO5 To Explain the concepts of Liquidation of companies.
			CO1 To demonstrate an understanding of the Legal Environment of Business.
			CO2 To Apply basic legal knowledge to business transactions.
			CO3 To Communicate effectively using standard business and legal terminology
			CO4 To Demonstrate knowledge of basic court procedures
	CORE- VI	Legal Aspects of Business	CO5 To Identify contract remedies
			CO1 To know the origination of banks in the world and in India
			CO2 To Identify the contract laws and agreements

III

III	CORE - VII	Modern Banking	CO3 To know the various types of banking services and also The Banking and financial system in India
			CO4 To learn About commercial banks and its products.
			CO5 To know How to build customer relationship in banking sector.
	CORE - VIII	BUSINESS STATISCTICS	CO1 To learn How to apply mathematical tools in business decision
			CO2 To know How to do comparative study of two or moreob
			CO3 . To know The basic concepts of statistics and its use in business
			CO4 To know the various statistical methods followed in business organisations
			CO5 To develop group and creating high performance in the areas where statistical methods are applied in the organisations.
	ALLIED- II	BUSINESS ECONOMICS	CO1 To know the economical condition of a countryand The fundamental conceptual foundations of microeconomics.
			CO2 To know How to analyze the behavior of consumers in terms of
			CO3 To know How to evaluate the factors affecting firm behavior
			CO4 To analyze the performance of firms under different market structures.
			CO5 To identify the fundamental conceptual foundations of microeconomics
			CO1 To Analyze the impact of E-commerce on business models and strategy.
			CO2 To Describe the major types of E-commerce.
			CO3 To Explain the process that should be followed in building an E-commerce presence.
CO4 To Identify the key security threats in the E-commerce environment.			

	SBS	E-COMMERCE	CO5 To learn how procurement and supply chains relate to B2B E-commerce.
			CO1 To Describe what a management is and what are the needs to have it
			CO2 To know the primary functions of management.
			CO3 To know the primary types of managers and the roles they play.
			CO4 To know the advantages that arise from managing people well.
	NMEC	MANAGEMENT CONCEPT	CO5 To Explain the key aspects of the environment that can affect strategy.
			CO1 To learn the Account for the various adjustments related to share capital
			CO2 To learn and Prepare the final accounts of Joint Stock companies
			CO3 To Prepare Liquidators Final Statement of Accounts
			CO4 To Explain the concepts of Liquidation of companies.
	CORE- IX	CORPORATE ACCOUNTING -II	CO5 To know the concepts of Amalgamation and External Reconstruction
			CO1 To Explain the concepts in business laws with respect to foreign trade
			CO2 To know the ways to Apply the global business laws to current business environment
			CO3 To Analyse the principle of international busines
			CO4 To Integrate concept of business law
	CORE -X	COMPANY LAW	CO5 To Analyse the principle of business laws and its applications
			CO1 To know the importance of effective communication in business
			CO2 To Differentiate between different methods of communication Methods of Communication

IV

IV	CORE -X1	BUSINESS CORRESPONDENCE	CO3 To know the importance of Ethics in Business Communication
			CO4 To Identify the three parts of the writing process in communication
			CO5 To know the common word processing software to write business messages
	CORE - XII	BUSINESS STATISTICS	CO1 To Describe and discuss the key terminology, concepts tools and techniques used in
			CO2 To know the Discrete data are the values assumed by a d for sale, are all examples of discrete data
			CO4 To know the Qualitative data refer to qualitative characteristics of a subject or an object
			CO5 To learn the Nominal data are the outcome of classification into two or more categories of items
	ALLIED - IV	BUSINESS ECONOMICS -II	CO1 To know How to evaluate the factors affecting firm behavior
			CO2 To analyze the performance of firms under different market structures.
			CO3 To know the fundamental conceptual foundations of microeconomics
			CO4 To know the economical policies of a country in mananasing its own resources
			CO5 To learn and evaluate the factors affecting firm behavior
			CO1 To learn the Development of new skills
			CO2 To identify and Helps to adjust with changing Technology
CO3 To create the various types of Trust in the organisations			
CO4 To identify the vacancies for Filling human resource requirements			

	NMEC	TRAINING AND DEVELOPMENT	CO5 To Analyse the human resource planning process and its procedures
			CO1 To know the various types of industries operating in the countries
			CO2 To identify the workplace and active environmental conditions
			CO3 To learn the types of industries producing the necessary goods
			CO4 To learn the industrial objectives of business people in satisfying the various expectations of customers in the market
	SBS	INDUSTRIAL ORGANISATION	CO5 To Realize that the overall structure is important and has an impact to people
			CO1 to know the difference between Cost Accounting , Cost Accountancy and Costing
			CO2 To identify the role of cost accountant
			CO3 To identify the objectives of cost accounting
			CO4 To understand the Management information needs
	CORE - XIII	COST ACCOUNTING-I	CO5 To learn the cost accounting as a tool of management, provides management with detailed records of the costs relating to products
			CO1 To learn the auditing nature followed in companies
			CO2 To know the various types of audits
			CO3 To know the needs for auditing a company's accounts
			CO4 To know the necessity to audit a company's accounts and its benefits
	CORE - IV	PRACTICAL AUDITING	CO5 To know the functions of auditors in auditing practices
			CO1 To learn the role of a Business manager in managing a business organisation

V	CORE-XV	BUSINESS MANAGEMENT	CO2 To know the Requirements to start a business Finance /Money Labor / People Customers Suppliers
			CO3 To know the Organizational Structure dealing in Product or Service
			CO4 To learn the principles of management for the successful of a business undertaking
			CO5 To know the functions performed a manager of a business organisation
	CORE- XVI	INCOMETAX, LAW AND PRACTICE	CO1 To familiar with the computation of capital gain
			CO2 To know the types of taxes levied in the country
			CO3 To know the exemptions available to an assessee
			CO4 To learn the ways to determine who are responsible to pay the tax
			CO5 To identify the various sources if incomes can be earned by an assessee
	ELECTIV E	ENTREPRENEURIAL DEVELOPMENT	CO1 To identify the sources available to a person to do a business and the ways available to do it
			CO2 To identify the various types of incentives provided to an entrepreneur
			CO3 To know the types of entrepreneur and the benefits to become a business man
			CO4 To inform the procedures to be followed by a business man to avail loans form financial institutions
			CO5 To know the concessions provided to an entrepreneur in innovating his business firm
			CO1 To identify the opportunities available to a businessman to shine in the markets for a long time
			business man to create new advertisement copies to attract many customers
CO3 To know the channels of distribution and to choose the best one			
CO4 To learn the general idea about framing advertisements.			

	SBS	PRINCIPLES OF MARKETING	CO5 To know the methods followed to expand thwe market size
VI	core -xvIII	COST ACCOUNTING - II	CO1 To enable the students to understand about job costing, batch costing and contract costing.
			CO2 To understand the students the different operating methods to control and reduce cost of rendering services
			CO3 To inform the students about the methods of costing and also used to ascertain the cost
			CO4 To know to formulate their own strategies in deciding a best method to control the costs
			CO5 To learn the different ways to control the costs of a product or service
	CORE - XIX	INCOME TAX, LAW AND PRACTICE	CO1 To familiar with the computation of capital gain
			CO2 To know the various processes to be followed in seizure of the properties of those who evade from tax payment
			CO3 To know about the tax payments in advance and the interest for the advance amount
			CO4 To know how the income tax is calculated as per income tax rules
			CO5 Top learn about the income tax authorities and their powers and duties.
	ELECTIV E-II	BUSINESS ENVIRONMENT	CO1 To learn the understanding of natural resources and ecosystems
			CO2 To know the awareness about the importance of presrvng natural resources in improving a vbusiness organisation
			CO3 To identify the consequences of pollution and possible solutions to avoid pollution in improving a business undertaking
			CO1 To have an understanding of natural resources and ecosystems
			CO5 To know the factors affecting a business undertaking in its performance

ELECTIV E-III	HUMAN RESOURCE MANAGEMENT	CO1 To know how to Effectively manage and plan key human resource functions within organizations	
		CO2 To Examine current issues, trends, practices, and processes in HRM	
		CO3 To Contribute to employee performance management and organizational effectiveness	
		CO4 To know the various Problem-solve human resource challenges	
		CO5 To Develop employability skills for the smooth workplace condition of an organisation	
	SBS	COMPUTER APPLICATION IN BUSINESS	CO1 To Gain familiarity with the concepts and terminology used in the development of systems used in an organisation
			CO2 To Explore various methods that Information Technology processes used in an organisation
			CO3 To know the applications of computers in managing a business undertakings
			CO4 To Accomplish projects utilizing computers in solving the business issues
			CO5 To understand the purposposes of computers in dealing with the accounts related informations
	OFFICE MANAGEMENT	CO1 To develop the official work of an inter,mediate officer of an organiation	
		CO2 To learn the role and reponibilities of the various levels of officers	
		CO3 To explore the files maintained in an organisation	
		CO4 To findout the importance of maintaining the vouchers	
		CO5 To have an understanding on the communication channels followed in the offices	
	VALUE EDUCATION	CO1 To create mental awareness to the students	
		CO2 To increase the knowledge in maintaining the health for peaceful life	
		CO3 To improve the healthy life of the students	

	CO4	To transform a disease free life for human beings
	CO5	To maintain a healthy society in the country
ENVIRONMENTAL STUDIES	CO1	To know the importance of maintaing the environment
	CO2	To create awareness to the general public about protecting the environment
	CO3	To educate the students to learn the necessary for safeguarding the nature
	CO4	To impart the environmental education concepts to the students
	CO5	To transform the society into an organic society in future

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of Commerce - M.Com.

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	To gain knowledge about Indian ethical practices. To familiarize the students to acquire sound knowledge of concepts, structure and nature of business finance. To impart knowledge regarding strategic financial planning.
2	PO2	The students can get the placement for jobs in all industries in Corporate Finance or you can apply to Banks, Investment Banks, Equity Research and Advisory companies, Mutual Funds, Stock broking firms etc
3	PO3	To inculcate the knowledge of business and the techniques of managing the business with special focus on marketing, Insurance and banking theory law and practices.
4	PO4	To impart the knowledge basic accounting principles and the latest application oriented corporate accounting methods.

Programme Specific Outcome (PSO)

S.No.	PSO Number	PSO Statements
1	PO1	To develop the decision making skill through costing methods and practical application of management accounting principles.
2	PO2	To enhance the horizon of knowledge in various field of commerce through advertising and sales promotion, auditing and entrepreneurial development.

3	PO3	To create awareness in application oriented research through research for business decisions.
4	PO4	To Develop the skills of analysis and capability of making business decisions.

Course Outcome(Cos)

Semster	Course	Title of the Course	Course Outcome
	Main I	Advanced Financial Management	CO 1 Understand concepts of Financial Management
			CO2 Enumerate the Capital Structure
			CO 3 Analyse Cost of Capital measurement
			CO 4 Evaluate Investment decisions process
			CO 5 Analyse Working capital management
	Main II	Accounting for Managerial Decisions	CO 1 Analyse Financial Statement analysis
			CO 2 Apply Cost Volume Profit analysis
			CO 3 Knowing the capital budgeting appraisal methods
			CO 4 Evaluation of capital structure factors
			CO 5 Analysing the dividend calculation methods
			CO 1 Understand Classification of services and implications
			CO 2 Identify Marketing strategies for service firms

I	Main III	Global Marketing	CO 3 Understand Pricing of services	
			CO 4 Understand Marketing of financial services	
			CO 5 Identify Customer Relationship Marketing	
	Main IV	Advanced Business statistics	CO 1 Develop the skills of analysis and capability of making business decisions.	
			CO 2 Apply mathematical tools in business decision	
			CO 3 Basic concepts of statistics and its use in business	
			CO 4 Key terminology, concepts tools and techniques used in business statistical analysis	
			CO 5 Qualitative data refer to qualitative characteristics of a subject or an object	
	Elective	Managerial Economics	CO 1 Analyse Scope and methods of Managerial Economics	
			CO 2 Apply Concept and tools of demand analysis	
			CO 3 Enumerate Concepts in resource allocation	
			CO 4 Evaluate Market Structure and Advertisement budgeting	
			CO 5 Apply Pricing methods and approaches	
				CO 1 Enumerate Problems of Industrial Relations and Growth of Trade Union
				CO 2 Understand and solve Disputes

II	Main V	Corporate Laws	CO 3 Evaluate Labour Welfare Measures
			CO 4 Analyse Industrial Accidents and Safety measures
			CO 5 Analyse Types of Labour
	Main VI	HRM	CO 1 Understand the Dimensions of managerial jobs
			CO 2 Plan and Identifying managerial talent and career management
			CO 3 Use measuring managerial effectiveness
			CO 4 Generate Organisational processes
			CO 5 Understand the Self- development skills and creativity
	Main VII	Advanced Accounts	CO 1 Solve the Problems in Share capital, Debentures, Valuation of Goodwill
			CO 2 Apply the procedures Acquisition, amalgamation, Absorption and Reconstruction
			CO 3 Compare the Holding and Subsidiary companies procedures & process.
			CO 4 Compute Liquidation
			CO 5 Recollect Accounting Principles and practices recommended by ICAI and apply in Problem solving.
			CO 1 Understand Probability Theory
			CO 2 Analyse Sampling Techniques

	Main VIII	QT for Business Decisions	CO 3 Apply Testing Hypothesis, Chi-square, f-test
			CO 4 Comprehend Correlation and Regression
			CO 5 Apply linear programming
	Elective	Retail Management	CO 1 Understand Classification of services and implications
			CO 2 Identify Marketing strategies for service firms
			CO 3 Understand Pricing of services
			CO 4 Understand Marketing of financial services
			CO 5 Identify Customer Relationship Marketing
	Main IX	GST	CO 1 Enumerate Problems of Industrial Relations and Growth of Trade Union
			CO 2 Understand and solve Disputes in GST
CO 3 Evaluate GST related Measures			
CO 4 Analyse Industrial Accidents and Safety measures			
CO 5 Analyse issues related to GST calculation			
		CO 2 Compare the Individual and group behavior in work place	

III	Main X	Organisational Behaviour	CO 3 Evaluate Organizational Communication effectiveness
			CO 4 Enumerate Organizational Dynamics and Climate
			CO 5 Analyse Organizational Change
	Main XI	Advanced Cost Accounting	CO 1 Analyse Cost Control and Reduction
			CO 2 Understand Costing Methods
			CO 3 Determine the Budgeting Control methods
			CO 4 Apply Cost Volume Profit analysis
			CO 5 Analyse Financial Statement analysis
	Main XII	Research Methodology	CO 1 Understand Meaning of Research and research design.
			CO 2 Create Hypothesis and testing
			CO 3 Identify Methods of Data collection and pilot study
			CO 4 Develop Processing and Analysis of data and SPSS packaging
			CO 5 Apply Report writing and drafting of report
	Elective II	Services Marketing	CO 1 Understand Classification of services and implications
			CO 2 Identify Marketing strategies for service firms
			CO 3 Understand Pricing of services

			CO 4 Understand Marketing of financial services
			CO 5 Identify Customer Relationship Marketing
IV	Main XIII	Direct Taxes	CO 1 Identify Tax calculation considerations
			CO 2 Computation of tax payment
			CO 3 Understand the rules of IT Dept.
			CO 4 Identify the methods of calculating the tax from various sources.
			CO 5 Understand the procedures for the relief
	Main XIV	Investment and Portfolio Management	CO 1 Understand Knowledge economy and Knowledge management strategy
			CO 2 Identify Knowledge Attributes
			CO 3 Understand Infrastructure of Knowledge Management and Applications
			CO 4 Develop Knowledge Culture
			CO 5 Comprehend Knowledge Management tools, techniques and knowledge audit
	Main XV	Project work	CO 1 Learning the process of project preparation
			CO 2 Analysing the data collected
			CO 3 Preparation of Questionnaire

			CO 4 Collecting the respondent opinions
			CO 5 Suggesting the remedies
	Elective IV	Sales and Advertising Management	CO 1 Learning the basic in marketing
			CO 2 Knowing the types of advertising media
			CO 3 Channels of Distribution
			CO 4 Salesman administration
			CO 5 Consumer Protection Activities
		Project Development	CO 1 Project preparation concept
			CO 2 Order of preparation
			CO 3 Sampling methodology
			CO 4 Questionnaire Preparation
			CO 5 Making suggestions

2.6 Students Performance and Learning Outcomes

2.6.1 Program Outcomes, Program Specific outcomes and Course Outcomes for all Programs Offered by the Institution Stated and Displayed in website of the institution (to provide the weblink)

Department of BBA

Programme Outcome (POs)

Upon Completion of the degree requirements, students will be able

S.No.	PO Number	PO Statements
1	PO1	An understanding of Business Functions
2	PO2	Providing Global Perspectives
3	PO3	Developing Critical and Analytical Thinking
4	PO4	Interpersonal Skill Development

Programme Specific Outcome (PSO)

S.No.	POS Number	POS Statements
1	PO1	Acquiring conceptual clarity various functional areas
2	PO2	Ability to analyze various functional issues affecting Organization
3	PO3	Demonstrate effectively oral and written communication
4	PO4	Demonstrate ability to work in groups

Course Outcome (Cos)

Semster	Course	Title of the Course	Course Outcome
I	Core-I	Principals of Management	CO1: Demonstrate comprehensive and accurate knowledge and understanding of various areas of management
			CO2: Exhibit knowledge and skill required to administer the affairs of management
			CO3 : Familiarizes students with concept and Principles of management
			CO1 : To know the basic mathematical calculations.

	Core-I	Business Mathematics and Statistics -I	CO2 : To give knowledge of quantitative methods and its applications in commercial situation for decision making. CO3 : To analyze different tools of progression theories of equation and number system	
I	Allied	Business Organization	CO1: Provides with logic and working of organization and outlines the major function of Business organization	
			CO2: Enable students to acquire and exhibit knowledge skill and abilities needed to successfully manage the organization with different environmental situations. CO3 : To give insight on Memorandum of Association, Article of Association, impact of globalization and technology of Indian business.	
	Core-I	Environmental Studies	CO1 : Understand and evaluate the global scale of environmental problems CO2 : Communicate complex environmental information to both technical and non - technical audiences CO3 : Articulate interconnected and interdisciplinary nature of environment studies	
Semster	Course	Title of the Course	Course Outcome	
II	Core	Business Environment	CO1 : Familiarize with the nature of business environment and its components CO2 : The students will be able to demonstrate and develop conceptual framework of business environment and generate interest in international business CO3 : Understand the definition of ethics and the importance and role of ethical behavior in the business world today.	
			Business Mathematics and Statistics II	CO1 : Describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis CO2 : Critically evaluate the underlying assumptions of analysis tools CO3 : Solve a range of problems using the techniques covered
				CO1 : Students will understand the importance of value based living.

II	Core	Value Education	CO2 : Students will gain deeper understanding about the purpose of their life.
			CO3 : Students will understand and start applying the essential steps to become good leaders
		Soft Skill	CO1 : Effectively communicate through verbal/oral communication and improve the listening skills
			CO2 : Write precise briefs or reports and technical documents
			CO3 : Actively participate in group discussion / meetings .
II	Allied	Customer Relationship Management	CO1 : Understand the basic concepts of Customer relationship management.
			CO2 : To understand marketing aspects of Customer relationship management.
			CO3 : Learn basics of analytical Customer relationship management.
Semster	Course	Title of the Course	Course Outcome
III	Core	Production Management	CO1 : Identify the elements of operations management and various transformation processes to enhance productivity and competitiveness.
			CO2 : Analyze and evaluate various facility alternatives and their capacity decisions, develop a balanced line of production & scheduling and sequencing techniques in operation environments
			CO3 : Develop aggregate capacity plans and MPS in operation environments.
		Financial Accounting	CO1 : Acquire conceptual knowledge of basics of accounting
			CO2 : Identify events that need to be recorded in the accounting records
			CO3 : Describe the role of accounting information and its limitations
		Human Resource Management	CO1 : To develop the understanding of the concept of human resource management and to understand its relevance in organizations.
			CO2 : To develop necessary skill set for application of various HR issues

III	Core	Management	CO3 : To analyse the strategic issues and strategies required to select and develop manpower resources.	
			CO1 : Understand the roles of managers in firms	
			CO2 : Understand the internal and external decisions to be made by managers	
			CO3 : Design competition strategies, including costing, pricing, product differentiation, and market environment according to the natures of products and the structures of the markets.	
III	Allied	Office Management	CO1 : Identify and describe challenges that affect administrative managers.	
			CO2 : Discuss the major areas of management, human resources, leadership and communications, administrative services, and workplace systems and technology	
			CO3 : Discuss emerging elements impacting administrative management practices.	
	Skill Based	Business Communication	CO1 : To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar.	
			CO2 : To participate in an online learning environment successfully by developing the implication-based understanding of Paraphrasing, deciphering instructions, interpreting guidelines, discussion boards & Referencing Styles.	
			CO3 : To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization.	
	Non Major Elective	Management Concepts	CO1 : Upon completion of the course, students will be able to have clear understanding of managerial functions like planning, and have same basic knowledge on international aspect of management	
			CO2 : To understand the planning process in the organization	
			CO3 : To understand the concept of organization	
	Semster	Course	Title of the Course	Course Outcome

IV	Core-I	Organizational Behavior	CO1 : Demonstrate the applicability of the concept of organizational behavior to understand the behavior of people in the organization.
			CO2 : Demonstrate the applicability of analyzing the complexities associated with management of individual behavior in the organization.
			CO3 : Analyze the complexities associated with management of the group behavior in the organization.
		Management Accounting	CO1 : Acquire conceptual knowledge of basics of accounting
			CO2 : Identify events that need to be recorded in the accounting records
			CO3 : Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP
IV	Core-I	Taxation	CO1 : To know about basics of accounting tax
			CO2 : To calculation of accounting records
			CO3 : Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP
		Operations Research	CO1 : Be able to understand the application of OR and frame a LP Problem with solution – graphical and through solver add in excel
			CO2 : Be able to build and solve Transportation and Assignment problems using appropriate method.
			CO3 : Be able to design and solve simple models of CPM and queuing to improve decision making and develop critical thinking and objective analysis of decision problems.
IV	Allied	Organizational Behavior	CO1 : Demonstrate the applicability of the concept of organizational behavior to understand the behavior of people in the organization.
			CO2 : Demonstrate the applicability of analyzing the complexities associated with management of individual behavior in the organization.
			CO3 : Analyze the complexities associated with management of the group behavior in the organization.
			CO1 : Learn how to start an enterprise and design business plans those are suitable for funding by considering all dimensions of business.

	Skill Based subject	Entrepreneurial Development	CO2 :Understand entrepreneurial process by way of studying different case studies and find exceptions to the process model of entrepreneurship.
			CO3 : Run a small enterprise with small capital for a short period and experience the science and art of doing business.
IV	Non Major Elective	Training and Development	CO1 : To develop an understanding of the evolution of training & development from a tactical to a strategic function .
			CO2 : To provide an insight into what motivates adults to learn and the most appropriate methodologies to impart training
			CO3 : To understand the concept of training audit & training evaluation
Semster	Course	Title of the Course	Course Outcome
V	Core	Marketing Management	CO1 : Students will demonstrate strong conceptual knowledge in the functional area of marketing management
			CO2 : Students will demonstrate effective understanding of relevant functional areas of marketing management and its application.
			CO3 : Students will demonstrate analytical skills in identification and resolution of problems pertaining to marketing management.
		Business Law	CO1 : Explain the concepts in business laws with respect to foreign trade
			CO2 : Apply the global business laws to current business environment
			CO3 : Analyse the principle of international business and strategies adopted by firms to expand globally
V	Core	Cost Accounting	CO1 : Acquire conceptual knowledge of basics of accounting
			CO2 : Identify events that need to be recorded in the accounting records
			CO3 : Identify and analyze the reasons for the difference between cash book and pass book balances
		Computer Application in Business	CO1 : : Generate and communicate ideas by combining, changing, or reapplying existing information
			CO2 : Develop, interpret, and express ideas through written communication
			CO3 : Analyze, evaluate, and synthesize information

V	Elective	Human Resource Management	CO1 : To develop the understanding of the concept of human resource management and to understand its relevance in organizations.
			CO2 : To develop necessary skill set for application of various HR issues
			CO3 : To analyse the strategic issues and strategies required to select and develop manpower resources.
V	Skill Based Subject	E- Business	CO1 : Understand the basic concepts and technologies used in the field of management information systems.
			CO2 : Have the knowledge of the different types of management information systems
			CO3 : Understand the processes of developing and implementing information systems;
Semster	Course	Title of the Course	Course Outcome
VI	Core	Industrial Relations and Labour Laws	CO1 : The students should able to illustrate the role of trade union in the industrial setup.
			CO2 : Students should able to outline the important causes & impact of industrial disputes.
			CO3 : Students should able to elaborate Industrial Dispute settlement procedures.
		Entrepreneurial Development	CO1 : Learn how to start an enterprise and design business plans those are suitable for funding by considering all dimensions of business.
			CO2 : Understand entrepreneurial process by way of studying different case studies and find exceptions to the process model of entrepreneurship.
			CO3 : Run a small enterprise with small capital for a short period and experience the science and art of doing business.
VI	Core	Group Project	CO1 : Understand project characteristics and various stages of a project
			CO2 : Understand the conceptual clarity about project organization and feasibility analyses
			CO3 : Analyze the learning and understand techniques for Project planning, scheduling and Execution Control.

VI	Elective	Financial Management	CO1 : Explain the concept of fundamental financial concepts, especially time value of money.
			CO2 : Apply capital budgeting projects using traditional methods.
			CO3 : Analyze the main ways of raising capital and their respective advantages and disadvantages in different circumstances
VI	Elective	Marketing Research	CO1 : To know about marketing research
			CO3 : Analyze the research tools
			CO3 : To marketing decision making
VI	Skill Based Subject	Creativity and Innovation Management	CO1 : Consider cognitive aspects of creativity and how personality and individual differences might contribute
			CO2 :Explore ways in which individuals can enhance their own creative potential
			CO3 : Appreciate how organisational factors such as culture, leadership, diversity and structure can both help and hinder creativity and innovation