

**JAWAHARLAL DARDA INSTITUTE OF ENGINEERING & TECHNOLOGY,  
YAVATMAL  
DEPARTMENT OF TEXTILE ENGINEERING  
SUMMARY SHEET  
CO ATTAINMENT**

CO	Title	Level	% Attainment
<b>Session 2015-16</b>			
<b>Yarn Manufacturing - I</b>			
Co1	Understand the technology and process parameters of ginning	3	100%
Co2	Understand the Processes involved in the conversion of bale cotton to lap	3	100%
Co3	Understand process variables to produce variables for better blowroom performance	3	100%
Co4	Able to identify and analyze lap faults & their causes	3	100%
Co5	Able to understand the objectives, process & basics functions of carding	3	100%
Co6	Able to calculate the production & cleaning efficiency of blowrrom & carding machine	2.4	80%
<b>Yarn Manufacturing – II</b>			
Co1	Understand the technology and process parameters of carding machine	2.2	73%
Co2	Understand fundamental aspects & various developments of carding process	2.2	73%
Co3	Understand the fundamental aspects & operating functions of drawframe	2.2	73%
Co4	Understand fundamental aspects & operating functions of combing preparatory process	2.0	67%
Co5	Understand fundamental aspects & operating functions of combing process	2.2	73%
Co6	Understand the influence of comber setting, combing cycle & noil removal on combing performance	2.0	67%
<b>Garment Manufacturing Technology</b>			
Co1	Understand the process involved in garment manufacturing such as cutting, planning, spreading, sewing.	3	100%
Co2	Understand the various accessories used in apparels.	2.6	87%
Co3	Understand standards norms for different size fits & drafts	3	100%
Co4	Understand size block patterns for men, women & kids wear.	3	100%
Co5	Understand the basic sewing techniques and pressing technology	3	100%
Co6	Understand the garment finishing for quality inspections technology	2.4	80%
<b>Textile Fiber - I</b>			
Co1	Understand the essential and desirable properties of fibre and classification of fibre	2.2	73%
Co2	Understand the physical, chemical and biological properties	2.2	73%

	of cotton, bast fibre and leaf fibres		
Co3	Understand the physical, chemical and biological properties of jute and flax	1.8	60%
Co4	Understand the physical, chemical and biological properties of wool, silk, mohair, camel alpaca	2.2	73%
Co5	Understand the methods of fibre formation and physical, chemical properties of regenerated fibres	1.8	60%
Co6	Understand the physical, chemical and biological properties of cuprammnum rayon, acetate and triacetate fibres	1.8	60%
<b>Textile Fiber - II</b>			
Co1	Understand the synthesis, manufacturing, physical and chemical properties of nylon and polyester fibres.	2.2	73%
Co2	Understand the synthesis, manufacturing, physical and chemical properties of PVA, PVC, acrylic, and polyolefine fibres	2.2	73%
Co3	Understand the microscopic structure of fibres	2.2	73%
Co4	Understand the micro and macro structure of natural and manmade fibres	1.6	53%
Co5	Understand the fibre length, fineness, maturity and moisture relation of fibre	1.8	60%
Co6	Understand the tensile, dielectric, tortional, thermal, static and flexural properties of fibre	2.0	67%
<b>Fabric Manufacturing – I</b>			
Co1	Understand concepts of winding, warping and sizing process.	3	100%
Co2	Able to calculate the production and efficiency of winding, warping and sizing process.	2.8	93%
Co3	Able to analyse the fundamental difference in direct and indirect warping process	2.6	87%
Co4	Understand importance and technology sizing process	2.4	80%
Co5	Understand the various concepts and systems used on sizing machine	3	100%
Co6	Understand the various concepts and systems used on sizing machine	3	100%
<b>Fabric Manufacturing - II</b>			
Co1	Understands the basic concepts of weaving	0.6	20%
Co2	Understands the objectives and operating principals of warping and sizing.	0.6	20%
Co3	Understands the warp and single end sizing process.	0.2	6.66%
Co4	Understands the objectives and operating principals of dobby	0	0%
Co5	Understands the objectives and operating principals of jacquards.	0.4	13%
Co6	Understand the process involved in figured design formation by weaving process	0	0%
<b>Thermal Science and Air Conditioning</b>			
Co1	To able to understand the properties of steam, Mollier chart and Steam table.	3	100%
Co2	To able to understand the working of different types of	3	100%

	boiler and to evaluate the performance of boiler.		
Co3	To able to understand the function and working of different types of boiler mountings and boiler accessories.	2.4	80%
Co4	To able to understand the function of different types of compressors and study of pneumatic systems.	2.4	80%
Co5	To able to understand the different types of refrigeration systems and psychometric process.	2.7	90%
Co6	To able to understand the different types of air conditioning systems and calculation of capacity of cooling and heating coil as per the seating capacity of hall.	2.7	90%
<b>Machine Drawing</b>			
Co1	Understand the conventional representation of machine components (springs, gears etc.), different types of materials, and different types of conventional breaks etc.	3	100%
Co2	Understand keys, cotter joints and couplings.	3	100%
Co3	Understand the development of surfaces like cylinders, cubes, prisms, pyramids and cones.	3	100%
Co4	Understand couplings, riveted joints, and welded joints.	2.8	93%
Co5	Understand parts and assembly of knuckle joints, screw jacks, Cross head, Stuffing box, Eccentric, Plummer block, Connecting rod end, Foot step bearings etc.	3	100%
Co6	Understand bearings and bearing mountings.	3	100%
<b>Applied Electronics and Control System</b>			
Co1	Understand the basic concept, working and characteristics of solid state semiconductor devices and its operation	0.6	20%
Co2	Understand the concept of bipolar junction transistor and its application devices	0.6	20%
Co3	Understand the concept of different digital electronics devices	0.6	20%
Co4	Gain the concept and working of different optoelectronics devices	0.6	20%
Co5	Have knowledge of transistor and its application	0.2	6.67%
Co6	Understand the concept of control system & its mechanism in different areas	0.6	20%
<b>Yarn Manufacturing - III</b>			
Co1	Understand fundamentals aspects & operating functions of speed frame process	3	100%
Co2	Understand different mechanisms of speed frame machine	3	100%
Co3	Understand fundamentals aspects & operating functions of ring spinning process	3	100%
Co4	Understand Fundamentals related to drafting system of ring spinning machine	3	100%
Co5	Able to calculate the production, efficiency and draft of ring spinning machine	3	100%
Co6	Understand fundamentals & operating functions of doubling & blending process	3	100%
<b>Advance Yarn Manufacturing Technology</b>			
Co1	Understand the significance of various developments in Blowroom	2.2	73%

Co2	Understand the significance of various developments in Card	2.2	73%
Co3	Understand the rotor spinning and friction spinning technology	1.8	60%
Co4	Understand the air jet spinning and air vortex spinning technology	2.2	73%
Co5	Understand the fundamental related to other new spinning systems	2.2	73%
Co6	Understand the structure & properties of yarn produced on new spinning systems	2.2	73%
<b>Apparel Merchandising</b>			
Co1	Understand the organisation of apparel industry & business etiquettes	3	100%
Co2	Understand responsibilities, objectives and strategies for apparel merchandising	3	100%
Co3	Understand the role and responsibilities of merchandiser	3	100%
Co4	Understand various sourcing systems used in apparel merchandising	2.8	93%
Co5	Understand the procedures, rules and documentation related to exports business	2.4	80%
Co6	Understand the basic requirements for ISO registration	2.4	80%
<b>Fabric Manufacturing - III</b>			
Co1	Understand the introductory aspects of knitting technology	2.4	80%
Co2	Understand the weft knitting technology	2.4	80%
Co3	Understand the of warp knitting technology	2.4	80%
Co4	Understand the aspects of nonwoven technology	2.4	80%
Co5	Understand the raw material structure, properties, applications & different web formation techniques pertaining to nonwoven technology.	2.4	80%
Co6	Understand the bonding technologies, properties & applications pertaining to various nonwoven types.	2.4	80%
Co7	Understand the engineering design, manufacturing, properties & applications of various knitted & nonwoven textiles.	2.4	80%
<b>Textile Testing - I</b>			
Co1	Able to apply the statistical tools in textile testing	2.4	80%
Co2	Able to apply the test of significance in textile testing	2.4	80%
Co3	Able to perform the measurement and evaluation of basic fibre properties	2.6	87%
Co4	Able to perform the measurement and evaluation of fibre moisture	2.4	80%
Co5	Able to perform the measurement and evaluation of fibre fineness and maturity	2.6	87%
Co6	Able to apply the sample selection technique for textile testing	2.4	80%
<b>Textile Testing - II</b>			
Co1	Able to perform the measurement and evaluation of hairiness and friction properties of yarn	2.2	73%
Co2	Able to perform the measurement and evaluation of tensile	2.2	73%

	properties.		
Co3	Understand the concept and factors influencing load elongation characteristics of textile material.	1.6	53%
Co4	Able to perform the measurement and evaluation of yarn irregularities.	1.6	53%
Co5	Able to perform the measurement and evaluation of yarn classmate faults	2.2	73%
Co6	Able to perform the measurement and evaluation of fabric dimension.	2.2	73%
<b>Textile Costing &amp; Economics</b>			
Co1	Understand the costing fundamentals and its different methods	2.4	80%
Co2	Understand the industrial raw material procurement and storage process.	2.4	80%
Co3	Understand the concept of inventory management systems.	3	100%
Co4	Understand demand- supply and its interaction	3	100%
Co5	Understand the different market types.	3	100%
Co6	Understand the banking and taxation system	3	100%
Co7	Understand the concepts of national income.	2.4	80%
<b>Process Control in Textile Manufacturing</b>			
Co1	Understand the process variables of blowroom & carding	3	100%
Co2	Understand the process variables of drawframe & combing	3	100%
Co3	Understand the process variables of speed frame & ring spinning	3	100%
Co4	Understand the process variables of winding & warping	3	100%
Co5	Understand the process variables of sizing	3	100%
Co6	Understand the process variables of weaving	3	100%
<b>Technical Textile</b>			
Co1	Understand the difference between conventional and technical textiles in the form of applications, fibers & its scope	3	100%
Co2	Understand the requirement and applications of filtration textiles.	3	100%
Co3	Understand the concept of geotextile	3	100%
Co4	Understand the essential properties & application of medical textile	3	100%
Co5	Understand the textile application in protective clothing and automobile area	3	100%
Co6	Understand the sport and industrial applications of textile material	3	100%
<b>Advance Nonwoven Technology</b>			
Co1	Understand the scenario of development and application of technical textiles	3	100%
Co2	Understand fabric formation preparation by electros spinning process and spunlace technologies.	3	100%
Co3	Understand manufacture technologies of evolon and airlaid fabric and its applications	3	100%
Co4	Understand the nonwoven fabric finishing processes	3	100%
Co5	Understand the measurement parameters of nonwoven fabric	3	100%

Co6	Understand the nonwoven fabric behaviour under various conditions	2.4	80%
<b>Advance Fabric Manufacturing Technology</b>			
Co1	Understand the scientific & technical background behind the invention of shuttle less weaving Technology	3	100%
Co2	Understand the projectile weaving technology	3	100%
Co3	Understand the rapier weaving technology	3	100%
Co4	Understand the jet weaving technologies	3	100%
Co5	Identify and analysis of important fabric types	2.8	93%
Co6	Understand the concepts of narrow, multiphase, multiaxial & multidimensional fabric manufacturing	2.4	80%
Co7	Understand the techno commercially different weaving technologies	2.4	80%
<b>Chemical Processing – I</b>			
Co1	Understand the wet processing sequence	3	100%
Co2	Understand the different preparatory processes required for dyeing	3	100%
Co3	Understand different dye class	2.6	87%
Co4	Understand the various dyeing machineries	3	100%
Co5	Understand the dyes applied on various cellulose fiber	3	100%
Co6	Understand the dyes applied on various synthetic and protein fiber	2.8	93%
<b>Chemical Processing – II</b>			
Co1	Understand the textile printing	3	100%
Co2	Understand the textile printing processes.	3	100%
Co3	Understand the printing recipe for different dyes	3	100%
Co4	Understand the various functional finishes	3	100%
Co5	Understand the evaluation of various functional finishes	3	100%
Co6	Understand the concept of computer colour matching	3	100%
<b>New Fiber Science</b>			
Co1	Understand the transition of new generation fibers	1.2	40%
Co2	Understand the High Tech fibres.	0.6	20%
Co3	Understand the High Tenacity fibres	0.6	20%
Co4	Understand the specialty applications of fibre	0.6	20%
Co5	Understand the new developments in fibre manufacturing.	0.6	20%
Co6	Understand about next generation fibre	0.6	20%
<b>Advance Knitting Technology</b>			
Co1	Understand the yarn quality preparation for knitting process.	2.4	80%
Co2	Understand the various modern developments in weft knitting technology.	2.4	80%
Co3	Understand the various modern developments in warp knitting technology.	3	100%
Co4	Understand the technological principle of figured warp knitted fabric production.	3	100%
Co5	Understand the need, properties and manufacturing of speciality knitted fabric.	2.6	87%
Co6	Understand the computer aided design and computer aided manufacturing in knitting.	2.6	87%
<b>Textile Mill Management</b>			

Co1	Understand the site selection for textile mill	3	100%
Co2	Understand the management consents and manpower planning for textile industry	2.6	87%
Co3	Understand the marketing and finance management for textile industry	2.4	80%
Co4	Understand the machine and labour allocation for yarn	2.4	80%
Co5	Understand the machine and labour allocation for fabric	2.4	80%
<b>Textile Mathematics</b>			
Co1	Able to calculate the fibre dimensions, trash and lint content in fibre	2.4	80%
Co2	Able to calculate the opening, cleaning and drafting related calculations	2.4	80%
Co3	Able to calculate the speedframe and ring frame calculations	3	100%
Co4	Able to calculate the winding calculations	3	100%
Co5	Able to calculate the warping and sizing calculations	3	100%
Co6	Able to calculate the weaving mechanisms	3	100%
<b>Textile Testing – III</b>			
Co1	To study the concept, measurement and evaluation of fabric serviceability.	3	100%
Co2	To study the concept, measurement and evaluation of fabric comfort properties related to thermal, moisture and air permeability properties.	3	100%
Co3	To study the concept, measurement and evaluation of fabric handle	2.4	80%
Co4	To study the concept, measurement and evaluation of fabric flammability and dimensional stability.	2.4	80%
Co5	To study the concept, measurement and evaluation of fabric colour fastness properties.	2.4	80%
Co6	To study the need, measurement and evaluation of testing of technical textile materials.	2.4	80%

CO	Title	Level	% Attainment
<b>Session 2016-17</b>			
<b>Yarn Manufacturing - I</b>			
Co1	Understand the technology and process parameters of ginning	3	100%
Co2	Understand the Processes involved in the conversion of bale cotton to lap	3	100%
Co3	Understand process variables to produce variables for better blowroom performance	2.8	93%
Co4	Able to identify and analyze lap faults & their causes	2.4	80%
Co5	Able to understand the objectives, process & basics functions of carding	3	100%
Co6	Able to calculate the production & cleaning efficiency of blowrrom & carding machine	3	100%
<b>Yarn Manufacturing - II</b>			
Co1	Understand the technology and process parameters of carding machine	2.4	80%
Co2	Understand fundamental aspects & various developments of carding process	2.6	87%
Co3	Understand the fundamental aspects & operating functions of drawframe	2.4	80%
Co4	Understand fundamental aspects & operating functions of combing preparatory process	2.4	80%
Co5	Understand fundamental aspects & operating functions of combing process	2.4	80%
Co6	Understand the influence of comber setting, combing cycle & noil removal on combing performance	2.4	80%
<b>Garment Manufacturing Technology</b>			
Co1	Understand the process involved in garment manufacturing such as cutting, planning, spreading, sewing.	3	100%
Co2	Understand the various accessories used in apparels.	3	100%
Co3	Understand standards norms for different size fits & drafts	3	100%
Co4	Understand size block patterns for men, women & kids wear.	2.8	93%
Co5	Understand the basic sewing techniques and pressing technology	3	100%
Co6	Understand the garment finishing for quality inspections technology	2.8	93%
<b>Textile Fiber – I</b>			
Co1	Understand the essential and desirable properties of fibre and classification of fibre	0.6	20%
Co2	Understand the physical, chemical and biological properties of cotton, bast fibre and leaf fibres	0.4	13.33%
Co3	Understand the physical, chemical and biological properties of jute and flax	0.6	20%
Co4	Understand the physical, chemical and biological properties of wool, silk, mohair, camel alpaca	0.6	20%



Co5	Understand the methods of fibre formation and physical, chemical properties of regenerated fibres	0.6	20%
Co6	Understand the physical, chemical and biological properties of cuprammnum rayon, acetate and triacetate fibres	0.6	20%
<b>Textile Fiber - II</b>			
Co1	Understand the synthesis, manufacturing, physical and chemical properties of nylon and polyester fibres.	2.4	80%
Co2	Understand the synthesis, manufacturing, physical and chemical properties of PVA, PVC, acrylic, and polyolefine fibres	2.4	80%
Co3	Understand the microscopic structure of fibres	2.4	80%
Co4	Understand the micro and macro structure of natural and manmade fibres	3	
Co5	Understand the fibre length, fineness, maturity and moisture relation of fibre	2.4	80%
Co6	Understand the tensile, dielectric, torsional, thermal, static and flexural properties of fibre	2.4	80%
<b>Fabric Manufacturing - I</b>			
Co1	Understand concepts of winding, warping and sizing process.	0.2	6.67%
Co2	Able to calculate the production and efficiency of winding, warping and sizing process.	0.4	13.33%
Co3	Able to analyse the fundamental difference in direct and indirect warping process	0.4	13.33%
Co4	Understand importance and technology sizing process	0.2	6.67%
Co5	Understand the various concepts and systems used on sizing machine	0.2	6.67%
Co6	Understand the various concepts and systems used on sizing machine	0.6	20%
<b>Fabric Manufacturing – II</b>			
Co1	Understands the basic concepts of weaving	1.4	47%
Co2	Understands the objectives and operating principals of warping and sizing.	0.8	27%
Co3	Understands the warp and single end sizing process.	1.4	47%
Co4	Understands the objectives and operating principals of dobby	0.8	27%
Co5	Understands the objectives and operating principals of jacquards.	0.8	27%
Co6	Understand the process involved in figured design formation by weaving process	1	33%
<b>Thermal Science and Air Conditioning</b>			
Co1	To able to understand the properties of steam, Mollier chart and Steam table.	3	100%
Co2	To able to understand the working of different types of boiler and to evaluate the performance of boiler.	3	100%
Co3	To able to understand the function and working of different types of boiler mountings and boiler accessories.	2.4	80%
Co4	To able to understand the function of different types of compressors and study of pneumatic systems.	2.4	80%

Co5	To able to understand the different types of refrigeration systems and psychometric process.	2.7	90%
Co6	To able to understand the different types of air conditioning systems and calculation of capacity of cooling and heating coil as per the seating capacity of hall.	2.7	90%
<b>Machine Drawing</b>			
Co1	Understand the conventional representation of machine components (springs, gears etc.), different types of materials, and different types of conventional breaks etc.	3	100%
Co2	Understand keys, cotter joints and couplings.	3	100%
Co3	Understand the development of surfaces like cylinders, cubes, prisms, pyramids and cones.	3	100%
Co4	Understand couplings, riveted joints, and welded joints.	2.8	93%
Co5	Understand parts and assembly of knuckle joints, screw jacks, Cross head, Stuffing box, Eccentric, Plummer block, Connecting rod end, Foot step bearings etc.	3	100%
Co6	Understand bearings and bearing mountings.	3	100%
<b>Yarn Manufacturing - III</b>			
Co1	Understand fundamentals aspects & operating functions of speed frame process	3	100%
Co2	Understand different mechanisms of speed frame machine	3	100%
Co3	Understand fundamentals aspects & operating functions of ring spinning process	3	100%
Co4	Understand Fundamentals related to drafting system of ring spinning machine	2.6	87%
Co5	Able to calculate the production, efficiency and draft of ring spinning machine	3	100%
Co6	Understand fundamentals & operating functions of doubling & blending process	2.4	80%
<b>Advance Yarn Manufacturing Technology</b>			
Co1	Understand the significance of various developments in Blowroom	3	100%
Co2	Understand the significance of various developments in Card	2.4	80%
Co3	Understand the rotor spinning and friction spinning technology	3	100%
Co4	Understand the air jet spinning and air vortex spinning technology	3	100%
Co5	Understand the fundamental related to other new spinning systems	2.4	80%
Co6	Understand the structure & properties of yarn produced on new spinning systems	3	100%
<b>Apparel Merchandising</b>			
Co1	Understand the organisation of apparel industry & business etiquettes	2.4	80%
Co2	Understand responsibilities, objectives and strategies for apparel merchandising	2.4	80%
Co3	Understand the role and responsibilities of merchandiser	3	100%
Co4	Understand various sourcing systems used in apparel	2.4	80%

	merchandising		
Co5	Understand the procedures, rules and documentation related to exports business	2.4	80%
Co6	Understand the basic requirements for ISO registration	2.4	80%
<b>Fabric Manufacturing - III</b>			
Co1	Understand the introductory aspects of knitting technology	0.6	20%
Co2	Understand the weft knitting technology	0.6	20%
Co3	Understand the of warp knitting technology	0.6	20%
Co4	Understand the aspects of nonwoven technology	0.4	
Co5	Understand the raw material structure, properties, applications & different web formation techniques pertaining to nonwoven technology.	0.6	20%
Co6	Understand the bonding technologies, properties & applications pertaining to various nonwoven types.	0.6	20%
Co7	Understand the engineering design, manufacturing, properties & applications of various knitted & nonwoven textiles.	0.6	20%
<b>Textile Testing - I</b>			
Co1	Able to apply the statistical tools in textile testing	3	100%
Co2	Able to apply the test of significance in textile testing	3	100%
Co3	Able to perform the measurement and evaluation of basic fibre properties	2.4	80%
Co4	Able to perform the measurement and evaluation of fibre moisture	2.4	80%
Co5	Able to perform the measurement and evaluation of fibre fineness and maturity	2.4	80%
Co6	Able to apply the sample selection technique for textile testing	3	100%
<b>Textile Testing - II</b>			
Co1	Able to perform the measurement and evaluation of hairiness and friction properties of yarn	1.4	46.67%
Co2	Able to perform the measurement and evaluation of tensile properties.	1.4	46.67%
Co3	Understand the concept and factors influencing load elongation characteristics of textile material.	1.4	46.67%
Co4	Able to perform the measurement and evaluation of yarn irregularities.	0.8	27%
Co5	Able to perform the measurement and evaluation of yarn classmate faults	1.4	46.67%
Co6	Able to perform the measurement and evaluation of fabric dimension.	1.4	46.67%
<b>Fabric Structure</b>			
Co1	To understand the construction of plain, twill, and satin sateen weaves	0.8	27%
Co2	To understand the construction of honeycomb, mockleno and velt structures	1	33%
Co3	To understand the light and colour theory, colour and weave effect	1.2	40%
Co4	To understand the backed, Bedford and double cloth	1.2	40%

	structure		
Co5	To understand the line and weft pile structure	1	33%
Co6	To understand the terry pile structure and multi axial weaving	0.8	27%
<b>Process Control in Textile Manufacturing</b>			
Co1	Understand the process variables of blowroom & carding	3	100%
Co2	Understand the process variables of drawframe & combing	3	100%
Co3	Understand the process variables of speed frame & ring spinning	3	100%
Co4	Understand the process variables of winding & warping	2.8	
Co5	Understand the process variables of sizing	3	100%
Co6	Understand the process variables of weaving	3	100%
<b>Technical Textile</b>			
Co1	Understand the difference between conventional and technical textiles in the form of applications, fibers & its scope	3	100%
Co2	Understand the requirement and applications of filtration textiles.	2.6	87%
Co3	Understand the concept of geotextile	3	100%
Co4	Understand the essential properties & application of medical textile	3	100%
Co5	Understand the textile application in protective clothing and automobile area	3	100%
Co6	Understand the sport and industrial applications of textile material	2.6	87%
<b>Advance Nonwoven Technology</b>			
Co1	Understand the scenario of development and application of technical textiles	3	100%
Co2	Understand fabric formation preparation by electros spinning process and spunlace technologies.	3	100%
Co3	Understand manufacture technologies of evolon and airlaid fabric and its applications	3	100%
Co4	Understand the nonwoven fabric finishing processes	2.4	80%
Co5	Understand the measurement parameters of nonwoven fabric	3	100%
Co6	Understand the nonwoven fabric behaviour under various conditions	3	100%
<b>Advance Fabric Manufacturing Technology</b>			
Co1	Understand the scientific & technical background behind the invention of shuttle less weaving Technology	2.8	93%
Co2	Understand the projectile weaving technology	2.6	87%
Co3	Understand the rapier weaving technology	2.6	87%
Co4	Understand the jet weaving technologies	2.4	80%
Co5	Identify and analysis of important fabric types	3	100%
Co6	Understand the concepts of narrow, multiphase, multiaxial & multidimensional fabric manufacturing	2.4	80%
Co7	Understand the techno commercially different weaving technologies	2.4	80%
<b>Chemical Processing – I</b>			
Co1	Understand the wet processing sequence	2.2	73%

Co2	Understand the different preparatory processes required for dyeing	2.2	73%
Co3	Understand different dye class	2.2	73%
Co4	Understand the various dyeing machineries	2.2	73%
Co5	Understand the dyes applied on various cellulose fiber	1.6	53%
Co6	Understand the dyes applied on various synthetic and protein fiber	1.6	53%
<b>Chemical Processing – II</b>			
Co1	Understand the textile printing	2.4	80%
Co2	Understand the textile printing processes.	2.4	80%
Co3	Understand the printing recipe for different dyes	2.6	87%
Co4	Understand the various functional finishes	3	100%
Co5	Understand the evaluation of various functional finishes	2.8	93%
Co6	Understand the concept of computer colour matching	2.6	87%
<b>New Fiber Science</b>			
Co1	Understand the transition of new generation fibers	3	100%
Co2	Understand the High Tech fibres.	2.6	87%
Co3	Understand the High Tenacity fibres	2.4	80%
Co4	Understand the specialty applications of fibre	2.4	80%
Co5	Understand the new developments in fibre manufacturing.	3	100%
Co6	Understand about next generation fibre	3	100%
<b>Advance Knitting Technology</b>			
Co1	Understand the yarn quality preparation for knitting process.	3	100%
Co2	Understand the various modern developments in weft knitting technology.	2.4	80%
Co3	Understand the various modern developments in warp knitting technology.	2.8	93%
Co4	Understand the technological principle of figured warp knitted fabric production.	3	100%
Co5	Understand the need, properties and manufacturing of speciality knitted fabric.	2.6	87%
Co6	Understand the computer aided design and computer aided manufacturing in knitting.	2.4	80%
<b>Textile Mill Management</b>			
Co1	Understand the site selection for textile mill	0.6	20%
Co2	Understand the management consents and manpower planning for textile industry	0.6	20%
Co3	Understand the marketing and finance management for textile industry	0.2	6.67%
Co4	Understand the machine and labour allocation for yarn	0	0%
Co5	Understand the machine and labour allocation for fabric	0.6	20%
Co6	Understand the different laws and mill constructional details	0.6	20%
<b>Textile Mathematics</b>			
Co1	Able to calculate the fibre dimensions, trash and lint content in fibre	3	100%
Co2	Able to calculate the opening, cleaning and drafting related calculations	2.4	80%
Co3	Able to calculate the speedframe and ring frame calculations	2.8	93%
Co4	Able to calculate the winding calculations	3	100%

Co5	Able to calculate the warping and sizing calculations	3	100%
Co6	Able to calculate the weaving mechanisms	2.8	93%
<b>Textile Testing – III</b>			
Co1	To study the concept, measurement and evaluation of fabric serviceability.	3	100%
Co2	To study the concept, measurement and evaluation of fabric comfort properties related to thermal, moisture and air permeability properties.	3	100%
Co3	To study the concept, measurement and evaluation of fabric handle	2.4	80%
Co4	To study the concept, measurement and evaluation of fabric flammability and dimensional stability.	2.4	80%
Co5	To study the concept, measurement and evaluation of fabric colour fastness properties.	3	100%
Co6	To study the need, measurement and evaluation of testing of technical textile materials.	2.4	80%

**JAWAHARLAL DARDA INSTITUTE OF ENGINEERING & TECHNOLOGY,  
YAVATMAL  
DEPARTMENT OF TEXTILE ENGINEERING  
SUMMARY SHEET  
PO ATTAINMENT**

PO	Title	Level	%	Level	%
			Attainment		Attainment
			2015-16	2016-17	
PO 1	Ability to understand the various process involved in textile manufacturing.	2.2	75.47	1.9	64.13
PO 2	Ability to apply knowledge of mathematics, science and Engineering Concept.	1.9	65.53	1.8	61.20
PO 3	Ability to handle operating textile and clothing technologies in their concern work domain.	1.91	63.67	1.8	61.87
PO 4	Ability to design & conduct experiments as well as to analyses and interpret data in textile engineering fields.	2.1	71.87	1.8	61.07
PO 5	Ability to identify, analysis, & solve textile engineering & technology related problems.	2.0	71.20	1.8	62.13
PO 6	Ability to design and develop logics, components, products, processes, with in boundary constraints as a changing needs.	1.8	60.20	1.8	61.20
PO 7	Undertake research in multidisciplinary areas.	1.8	60.13	1.8	60.13
PO 8	Understanding of their professional duties with ethics.	1.9	66.27	1.8	61.33
PO 9	Ability to communicate effectively both in verbal and nonverbal forms.	1.9	65.20	1.8	60.00
PO 10	Understanding and critical thinking regarding impact of textile sector issues in local and global economy and eventually on society	1.9	65.87	1.8	62.40
PO 11	Vision regarding the essentiality of lifelong learning in view to abreast with developments in the field of engineering and technology.	1.9	64.87	2.0	67.20
PO 12	Able to learn and use modern technology, computational skills and latest engineering tools necessary for textile engineering processes.	2.0	67.60	1.8	62.40

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YAVATMAL  
DEPARTMENT OF TEXTILE ENGINEERING  
SUMMARY SHEET  
PSO ATTAINMENT**

PSO	Title	2015-16		2016-17	
		Level	% Attainment	Level	% Attainment
PSO 1	Students undergone through the said programme will have remarkable Textile Engineering Ability to exploit the higher employment scenario of textile field.	2.50	83.33%	2.52	84.00%
PSO 2	Students undergone through the said programme will have ability to work effectively in textile business development activities like merchandising , sourcing, marketing, product development and customer relation management.	2.65	88.33%	2.60	86.67%
PSO 3	To develop a textile entrepreneurship skills and establish Textile business with taking advantages of textile policies laid by state and central government agencies for near by region.	2.30	76.66%	2.45	81.67%