

Government of Pakistan

National Vocational and Technical Training Commission

Prime Minister's Hunarmand Pakistan Program

"Skills for All"



Course Contents/ Lesson Plan

Course Title: Gemstone Cutting Polishing & Carving

Duration: 6 Months

Revised Edition

Trainer Name	Haroon ur Rasheed, Naveed Khan, Muhammad Hamza & Zahid Khan
Course Title	Gemstone Cutting Polishing & Carving
Objectives and Expectations	<p>Employable skills and hands-on practice in Gemstone cutting / Polishing & Carving</p> <p>This is a special course designed to address unemployment in the youth. The course aims to achieve the above objective through hands on practical training delivery by a team of dedicated professionals having rich market/work experience. This course is therefore not just for developing a theoretical understanding/back ground of the trainees. Contrary to that, it is primarily aimed at equipping the trainees to perform commercially in a market space in independent capacity or as a member of a team.</p> <p>The course therefore is designed to impart not only technical skills but also soft skills (i.e. interpersonal/communication skills; personal grooming of the trainees etc.) as well as entrepreneurial skills (i.e. marketing skills; free lancing etc.). The course also seeks to inculcate work ethics to foster better citizenship in general and improve the image of Pakistani work force in particular.</p> <p><u>Main Expectations:</u></p> <p>In short, the course under reference should be delivered by professional instructors in such a robust hands-on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion.</p> <p>This course thus clearly goes beyond the domain of the traditional training practices in vogue and underscores an expectation that a market-centric approach will be adopted as the main driving force while delivering it. The instructors should therefore be experienced enough to be able to identify the training needs for the possible market roles available out there. Moreover, they should also know the strengths and weaknesses of each trainee to prepare them for such market roles during/after the training.</p> <ol style="list-style-type: none"> <li data-bbox="384 1384 1514 1675">i. Specially designed practical tasks to be performed by the trainees have been included in the Annexure-I to this document. The record of all tasks performed individually or in groups must be preserved by the management of the training Institute clearly labeling name, trade, session, etc. so that these are ready to be physically inspected/verified through monitoring visits from time to time. The weekly distribution of tasks has also been indicated in the weekly lesson plan given in this document. <li data-bbox="384 1675 1514 2004">ii. To materialize the main expectations, a special module on <u>Job Search & Entrepreneurial Skills</u> has been included in the latter part of this course (5th & 6th month) through which, the trainees will be made aware of the Job search techniques in the local as well as international job markets (Gulf countries). Awareness around the visa process and immigration laws of the most favored labor destination countries also form a part of this module. Moreover, the trainees would also be encouraged to venture into self-employment and exposed to the main requirements in this regard. It is also expected that a sense of civic

duties/roles and responsibilities will also be inculcated in the trainees to make them responsible citizens of the country.

iii. A module on **Work Place Ethics** has also been included to highlight the importance of good and positive behavior in the workplace in the line with the best practices elsewhere in the world. An outline of such qualities has been given in the Appendix to this document. Its importance should be conveyed in a format that is attractive and interesting for the trainees such as through PPT slides +short video documentaries. Needless to say that if the training provider puts his heart and soul into these otherwise non-technical components, the image of the Pakistani workforce would undergo a positive transformation in the local as well as international job markets.

To maintain interest and motivation of the trainees throughout the course, modern techniques such as:

- Motivational Lectures
- Success Stories
- Case Studies

These techniques would be employed as an additional training tool wherever possible (these are explained in the subsequent section on Training Methodology).

Lastly, evaluation of the competencies acquired by the trainees will be done objectively at various stages of the training and a proper record of the same will be maintained. Suffice to say that for such evaluations, practical tasks would be designed by the training providers to gauge the problem-solving abilities of the trainees.

(i) **Motivational Lectures**

The proposed methodology for the training under reference employs motivation as a tool. Hence besides the purely technical content, a trainer is required to include elements of motivation in his/her lecture. To inspire the trainees to utilize the training opportunity to the full and strive towards professional excellence. Motivational lectures may also include general topics such as the importance of moral values and civic role & responsibilities as a Pakistani. A motivational lecture should be delivered with enough zeal to produce a deep impact on the trainees. It may comprise of the following:

- Clear Purpose to convey the message to trainees effectively.
- Personal Story to quote as an example to follow.
- Trainees Fit so that the situation is actionable by trainees and not represent a just idealism.
- Ending Points to persuade the trainees on changing themselves.

A good motivational lecture should help drive creativity, curiosity, and spark the desire needed for trainees to want to learn more.

The impact of a successful motivational strategy is amongst others commonly visible in increased class participation ratios. It increases the trainees' willingness to be engaged on the practical tasks for a longer time without boredom and loss of interest because they can see in their mind's eye where their hard work would take them in short (1-3 years); medium (3 -10 years) and long term (more than 10 years).

As this tool is expected that the training providers would make arrangements for regular well planned motivational lectures as part of a coordinated strategy interspersed throughout the training period as suggested in the weekly lesson

plans in this document.

Course-related motivational lectures online link is available in **Annexure-II**.

(ii) Success Stories

Another effective way of motivating the trainees is using Success Stories. Its inclusion in the weekly lesson plan at regular intervals has been recommended till the end of the training.

A success story may be disseminated orally, through a presentation, or using a video/documentary of someone that has risen to fortune, acclaim, or brilliant achievement. A success story shows how a person achieved his goal through hard work, dedication, and devotion. An inspiring success story contains compelling and significant facts articulated clearly and easily comprehensible words. Moreover, it is helpful if it is assumed that the reader/listener knows nothing of what is being revealed. The optimum impact is created when the story is revealed in the form of:-

- Directly in person (At least 2-3 cases must be arranged by the training institute)
- Through an audio/ videotaped message (2-3 high-quality videos must be arranged by the training institute)

It is expected that the training provider would collect relevant high-quality success stories for inclusion in the training as suggested in the weekly lesson plan given in this document.

The suggestive structure and sequence of a sample success story and its various shapes can be seen in **Annexure III**.

(iii) Case Studies

Where a situation allows, case studies can also be presented to the trainees to widen their understanding of the real-life specific problem/situation and to explore the solutions.

In simple terms, the case study method of teaching uses a real-life case example/a typical case to demonstrate a phenomenon in action and explain theoretical as well as practical aspects of the knowledge related to the same. It is an effective way to help the trainees comprehend in depth both the theoretical and practical aspects of the complex phenomenon in depth with ease. Case teaching can also stimulate the trainees to participate in discussions and thereby boost their confidence. It also makes the classroom atmosphere interesting thus maintaining the trainee interest in training till the end of the course.

Depending on suitability to the trade, the weekly lesson plan in this document may suggest case studies be presented to the trainees. The trainer may adopt a PowerPoint presentation or video format for such case studies whichever is deemed suitable but only those cases must be selected that are relevant and of a learning value.

The Trainees should be required and supervised to carefully analyze the cases.

For this purpose, they must be encouraged to inquire and collect specific information/data, actively participate in the discussions, and intended solutions to the problem/situation.

Case studies can be implemented in the following ways: -

- i. A good quality trade-specific documentary (At least 2-3 documentaries must be arranged by the training institute)
- ii. Health & Safety case studies (2 cases regarding safety and

	<p>iii. industrial accidents must be arranged by the training institute) Field visits(At least one visit to a trade-specific major industry/ site must be arranged by the training institute)</p>
Entry-level of trainees	<ul style="list-style-type: none"> • Matriculation
Learning Outcomes of the course	<p>By the end of this course, the trainees will be able to understand the following competencies:</p> <ul style="list-style-type: none"> • Separation of Natural & Synthetic gemstones • Separation of Natural & Treated gemstones • Separation of Natural & Imitation gemstones • Knowledge of Treatment in gemstones • Knowledge of gemstone testing instruments • Knowledge about Pakistan gemstones • Skill about cabochon, jeweler article, engraving carving, making of fish, frog and birds etc. • Skill of making different other decorating items. • Skill about cutting & polishing i.e. round brilliant cut, step cut, modified brilliant cut, French star cut, Emerald cut, Portuguese cut, Asscher cut, Cushion cut and Double diamond cut etc.
Course Execution Plan	<p>The total duration of the course:6 months (24 Weeks) Class hours:4 hours per day Theory:20% Practical: 80% Weekly hours: 20 hours per week Total contact hours: 480 hours</p>
Companies offering jobs in the respective trade	<ul style="list-style-type: none"> • Public sector organization • Private gems and Jewellery sector • Self employment
Job Opportunities	<ul style="list-style-type: none"> • Public sector organization • Private gems and Jewellery sector • Self employment
No of Students	20
Learning Place	Classroom / Lab
Instructional Resources	<ul style="list-style-type: none"> • How to Use the Polariscope - YouTube • How to Use the Polariscope - YouTube • How To Identify a Gemstone using a refractometer - YouTube • Geology 101: Natural Processes that Form Colored Gemstones GIA Knowledge Sessions Webinar Series - YouTube

MODULES

Scheduled Weeks	Module Title	Days	Hours	Learning Units	Home Assignment
Week 1	Introduction to Gemology, Basic Terminologies & Motivational lecture	Day1	Hour 1	What is Gemology, Gemstone and Gemologist?	<p>•Task 1</p> <p><i>Details may be seen at Annexure-I</i></p>
			Hour 2	What is beauty, rarity and durability?	
			Hour 3	Physical properties of gemstones such as hardness and hardness scale (Moh's Scale).	
			Hour 4	Toughness, Stability, Fracture, Cleavage, Parting and streak.	
		Day 2	Hour 1	Transparency of Gemstone	
			Hour 2	Introduction: Luster of Gemstone	
			Hour 3	Metallic luster, Adamantine luster	
			Hour 4	Vitreous luster, Waxy luster	
		Day 3	Hour 1	Pearly luster, Silky luster	
			Hour 2	Shape of Stone (Cut/Rough)	
			Hour 3	Natural Gemstone	
			Hour 4	Synthetic Gemstone	
		Day 4	Hour 1	Imitation / stimulant gemstone	

			Hour 2	Treated Gemstone	
			Hour 3	Organic gemstones.	
			Hour 4	Inorganic gemstone	
		Day 5	Hour 1	Composite / Assembled Gemstone	
			Hour 2	Composite / Assembled Gemstone	
			Hour 3	Motivational lecture	
			Hour 4	Motivational lecture	
Week 2	Introduction to Rough Natural Gemstone	Day 1	Hour 1	Introduction: Crystal system	<p>• Task 2</p> <p><i>Details may be seen at Annexure-I</i></p>
			Hour 2	Cubic Crystal system.	
			Hour 3	Trigonal, Tetragonal and Hexagonal crystal systems.	
			Hour 4	Monoclinic, Triclinic and Orthorhombic crystal systems.	
		Day 1	Hour 1	Introduction: Beryl Family	
			Hour 2	Physical properties of Beryl Family	
			Hour 3	Physical properties of Beryl Family	
			Hour 4	Physical properties of Beryl Family	

		Day 3	Hour 1	Introduction: Corundum Family	
			Hour 2	Physical properties of corundum Family	
			Hour 3	Physical properties of corundum Family	
			Hour 4	Physical properties of corundum Family	
		Day 4	Hour 1	Introduction: Tourmaline Family	
			Hour 2	Physical properties of Tourmaline Family	
			Hour 3	Physical properties of Tourmaline Family	
			Hour 4	Physical properties of Tourmaline Family	
		Day 5	Hour 1	Introduction: Quartz Family	
			Hour 2	Physical properties of Quartz Family	
			Hour 3	Physical properties of Quartz Family	
			Hour 4	Physical properties of Quartz Family	
Week 3	Introduction to Gemstone Instruments & their uses and Job Search/ Entrepreneurial skills	Day1	Hour 1	Introduction: Garnet Family	•Task 3 <i>Details may be seen at Annexure-I</i>
Hour 2			Physical properties of garnet Family		
Hour 3			Physical properties of garnet Family		
Hour 4			Physical properties of garnet Family		

		Day 2	Hour 1	Introduction: 10 X loupe
			Hour 2	Observation of Gemstone on 10 X loupe
			Hour 3	Internal observation of 10x Loupe.
			Hour 4	External observation of 10x loupe.
		Day 3	Hour 1	Introduction: Polariscope
			Hour 2	Isotropic Gemstone
			Hour 3	Anisotropic Gemstone
			Hour 4	Polycrystalline Gemstone and Amorphous.
		Day 4	Hour 1	Introduction: Refractive meter
			Hour 2	Identification of different Gemstone on the basis of Refractive index
			Hour 3	Identification of different Gemstone on the basis of Refractive index
			Hour 4	Identification of different Gemstone on the basis of Refractive index
		Day 5	Hour 1	Identification of different Gemstone on the basis of Refractive index
			Hour 2	Identification of different Gemstone on the basis of Refractive index

			Hour 3	Job Search/ Entrepreneurial skills	
			Hour 4	Job Search/ Entrepreneurial skills	
Week 4	Identification of Cut gemstones	Day1	Hour 1	Introduction: Dichroscope	<p>•Task 4</p> <p><i><u>Details may be seen at Annexure-I</u></i></p>
			Hour 2	Types of Dichroscopes	
			Hour 3	What is Pleochroism and Dichroism?	
			Hour 4	What is Trichroism.	
		Day 2	Hour 1	Introduction: Spectroscope	
			Hour 2	Types of Spectroscopes	
			Hour 3	Uses of spectroscope	
			Hour 4	Uses of Spectroscope.	
		Day 3	Hour 1	Introduction: Hydrostatic Balance	
			Hour 2	What is specific gravity?	
			Hour 3	Calculate S.G of the gemstone with the help of formula.	
			Hour 4	Weight: Unit of weight Carat/cents or points.	
		Day 4	Hour 1	Emerald	

			Hour 2	Ruby	
			Hour 3	Sapphire	
			Hour 4	Aquamarine	
			Day 5	Hour 1	
			Hour 2	Spinal	
			Hour 3	Garnet	
			Hour 4	Tourmaline	
		Week 5	Identification of Cut Gemstones and Gemological Microscope	Day1	
Hour 2	Coral (Beads)				
Hour 3	Agate				
Hour 4	Turquoise				
Day 2	Hour 1	Lapis Lazuli			
	Hour 2	Quartz			
	Hour 3	Citrine			
	Hour 4	Spodumene			
Day 3	Hour 1	Period			

			Hour 2	Topaz				
			Hour 3	Fluorite				
			Hour 4	Calcite				
		Day 4	Hour 1	Introduction and construction of Microscope				
			Hour 2	Types of microscopes.				
			Hour 3	Uses of Microscopes				
			Hour 4	Uses of Microscopes.				
		Day 5	Hour 1	Inclusion of natural gemstone				
			Hour 2	Inclusion of natural gemstone				
			Hour 3	Inclusion of natural gemstone				
			Hour 4	Inclusion of natural gemstone				
		Week 6	Identification of Gemstone & Field visit	Day1		Hour 1	Inclusion of synthetic gemstone	<p>• Task 6</p> <p><i>Details may be seen at Annexure-I</i></p>
						Hour 2	Inclusion of synthetic gemstone	
Hour 3	Inclusion of synthetic gemstone							
Hour 4	Inclusion of synthetic gemstone							
Day 2	Hour 1			Identification of different gemstone with the help of				

				Gemological instruments	
			Hour 2	Identification of different gemstone with the help of Gemological instruments	
			Hour 3	Identification of different gemstone with the help of Gemological instruments	
			Hour 4	Identification of different gemstone with the help of Gemological instruments	
		Day 3	Hour 1	Identification of different gemstone with the help of Gemological instruments	
			Hour 2	Identification of different gemstone with the help of Gemological instruments	
			Hour 3	Identification of different gemstone with the help of Gemological instruments	
			Hour 4	Identification of different gemstone with the help of Gemological instruments	
		Day 4	Hour 1	Understanding Gemstone Market	
			Hour 2	Understanding Gemstone Market	
			Hour 3	Understanding Gemstone Market	
			Hour 4	Understanding Gemstone Market	
		Day 5	Hour 1	Field visit / Industry visit	
			Hour 2	Field visit / Industry visit	
			Hour 3	Field visit / Industry visit	
			Hour 4	Field visit / Industry visit	

Week 7	Introduction of Gemstone Cutting Machinery & Making of Cabochon	Day1	Hour 1	Introduction of gemstone cutting machinery	<p>• Task 7</p> <p><u>Details may be seen at Annexure-I</u></p>
			Hour 2	Uses of cutting machinery	
			Hour 3	Introduction & uses of gemstone cutting tools	
			Hour 4	Safety precaution	
		Day 2	Hour 1	Orientation session for making of round shape cabochon	
			Hour 2	Outlining & Trimming (Round shape cabochon)	
			Hour 3	Preforming & Pre-polishing (Round shape cabochon)	
			Hour 4	Polishing (Round shape cabochon)	
		Day 3	Hour 1	Orientation session for making of oval shape cabochon	
			Hour 2	Outlining & Trimming (Oval shape cabochon)	
			Hour 3	Preforming & Pre-polishing (Oval shape cabochon)	
			Hour 4	Polishing (Oval shape cabochon)	
		Day 4	Hour 1	Orientation session for making of Marquise shape cabochon	
			Hour 2	Outlining & Trimming (Marquise shape cabochon)	

			Hour 3	Preforming & Pre-polishing (Marquise shape cabochon)	
			Hour 4	Polishing (Marquise shape cabochon)	
		Day 5	Hour 1	Orientation session for making of gemstone Pear shape cabochon	
			Hour 2	Outlining & Trimming (Pear shape cabochon)	
			Hour 3	Preforming & Pre-polishing (Pear shape cabochon)	
			Hour 4	Polishing (Pear shape cabochon)	
Week 8	Making of different article of gemstone	Day1	Hour 1	Orientation session for making of Heart shape	•Task 8 <i>Details may be seen at Annexure-I</i>
			Hour 2	Outlining & Trimming (Heart shape)	
			Hour 3	Preforming (Heart shape)	
			Hour 4	Preforming (Heart shape)	
		Day 2	Hour 1	Pre-polishing (Heart shape)	
			Hour 2	Pre-polishing (Heart shape)	
			Hour 3	Polishing (Heart shape)	
			Hour 4	Polishing (Heart shape)	

		Day 3	Hour 1	Orientation session for making of pendent	
			Hour 2	Trimming for pendent	
			Hour 3	Preforming for pendent	
			Hour 4	Preforming for pendent	
		Day 4	Hour 1	Pre-polishing of pendent	
			Hour 2	Polishing of pendent	
			Hour 3	Orientation session for making of leaf	
			Hour 4	Outlining for making of leaf	
		Day 5	Hour 1	Trimming for making of leaf	
			Hour 2	Preforming for making of leaf	
			Hour 3	Pre-polishing of leaf	
			Hour 4	Polishing of leaf	
Week 9	Gemstone engraving carving & Job Search/ Entrepreneurial skills	Day1	Hour 1	Orientation session of engraving carving	•Task 9 <i>Details may be seen at Annexure-I</i>
			Hour 2	Engraving of leaf	
			Hour 3	Engraving of leaf	
			Hour 4	Engraving of leaf	

		Day 2	Hour 1	Pre-polishing of engraving leaf
			Hour 2	Pre-polishing of engraving leaf
			Hour 3	Polishing of engraving leaf
			Hour 4	Polishing of engraving leaf
		Day 3	Hour 1	Orientation session for making of Fish
			Hour 2	Outlining & Trimming for making of Fish
			Hour 3	Preforming of Fish
			Hour 4	Preforming of Fish
		Day 4	Hour 1	Engraving of Fish
			Hour 2	Engraving of Fish
			Hour 3	Pre-Polishing of Fish
			Hour 4	Polishing of Fish
		Day 5	Hour 1	Job Search/ Entrepreneurial skills
			Hour 2	Job Search/ Entrepreneurial skills
			Hour 3	Job Search/ Entrepreneurial skills
			Hour 4	Job Search/ Entrepreneurial skills

Week 10	Making of Bangles & Gemstone Rings	Day1	Hour 1	Orientation session for making of Bangle	•Task 10 <i><u>Details may be seen at Annexure-I</u></i>
			Hour 2	Outlining & Trimming for Bangle	
			Hour 3	Preforming of Bangle	
			Hour 4	Preforming of Bangle	
		Day 2	Hour 1	Preforming of Bangle	
			Hour 2	Preforming of Bangle	
			Hour 3	Preforming of Bangle	
			Hour 4	Pre-polishing of Bangle	
		Day 3	Hour 1	Pre-polishing of Bangle	
			Hour 2	Polishing of Bangle	
			Hour 3	Polishing of Bangle	
			Hour 4	Orientation session for making of gemstone ring	
		Day 4	Hour 1	Outlining & Trimming for gemstone ring	
			Hour 2	Preforming for making of gemstone ring	
			Hour 3	Preforming for making of gemstone ring	
			Hour 4	Preforming for making of gemstone ring	

		Day 5	Hour 1	Pre-polishing for making of gemstone Ring	
			Hour 2	Pre-polishing for making of gemstone Ring	
			Hour 3	Polishing of gemstone Ring	
			Hour 4	Polishing of gemstone Ring	
Week 11	Making of Frog	Day1	Hour 1	Orientation session for making of Frog	<p>• Task 11 <i><u>Details may be seen at Annexure-I</u></i></p>
			Hour 2	Sketching & Trimming for making of Frog	
			Hour 3	Preforming for making of Frog	
			Hour 4	Preforming for making of Frog	
		Day 2	Hour 1	Preforming for making of Frog	
			Hour 2	Preforming for making of Frog	
			Hour 3	Preforming for making of Frog	
			Hour 4	Preforming for making of Frog	
		Day 3	Hour 1	Preforming for making of Frog	
			Hour 2	Preforming for making of Frog	
			Hour 3	Preforming for making of Frog	
			Hour 4	Preforming for making of Frog	

		Day 4	Hour 1	Pre-polishing of Frog		
			Hour 2	Pre-polishing of Frog		
			Hour 3	Pre-polishing of Frog		
			Hour 4	Pre-polishing of Frog		
			Day 5	Hour 1		Polishing of Frog
				Hour 2		Polishing of Frog
				Hour 3		Polishing of Frog
				Hour 4		Polishing of Frog
Week 12	Making of Birds , understanding of gemstone market & field visit	Day1	Hour 1	Orientation session for making of bird	<p>•Task 12</p> <p><i>Details may be seen at Annexure-I</i></p>	
			Hour 2	Sketching & Trimming for making of bird		
			Hour 3	Preforming for making of bird		
			Hour 4	Preforming for making of bird		
		Day 2	Hour 1	Preforming for making of bird		
			Hour 2	Preforming for making of bird		
			Hour 3	Preforming for making of bird		
			Hour 4	Preforming for making of bird		

		Day 3	Hour 1	Pre-polishing of bird	
			Hour 2	Pre-polishing of bird	
			Hour 3	Polishing of bird	
			Hour 4	Polishing of bird	
		Day 4	Hour 1	Understanding Gemstone Market	
			Hour 2	Understanding Gemstone Market	
			Hour 3	Understanding Gemstone Market	
			Hour 4	Understanding Gemstone Market	
		Day 5	Hour 1	Field visit / Industry visit	
			Hour 2	Field visit / Industry visit	
			Hour 3	Field visit / Industry visit	
			Hour 4	Field visit / Industry visit	
Week 13	Introduction of Faceting Machinery, Tools & Round Brilliant Cut	Day1	Hour 1	Introduction of Faceting Unit	<p>•Task 13</p> <p><i>Details may be seen at Annexure-I</i></p>
			Hour 2	Introduction of Facetor & Types of Facetor	
			Hour 3	Introduction of Faceting Tools	
			Hour 4	Safety Precaution	

		Day 2	Hour 1	Orientation session for making of performing of faceted gemstone
			Hour 2	Outlining & Trimming of Gemstone
			Hour 3	Preforming
			Hour 4	Preforming
		Day 3	Hour 1	Preforming
			Hour 2	Preforming
			Hour 3	Preforming
			Hour 4	Preforming
		Day 4	Hour 1	Doping
			Hour 2	Doping
			Hour 3	Doping
			Hour 4	Doping
		Day 5	Hour 1	Motivational lecture
			Hour 2	Motivational lecture
			Hour 3	Motivational lecture

			Hour 4	Motivational lecture	
Week 14	Round Brilliant Cut	Day1	Hour 1	Orientation session of Round Brilliant cut	<p>•Task 14</p> <p><i>Details may be seen at Annexure-I</i></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	
			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	
			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	

			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 15	Step cut	Day1	Hour 1	Orientation session of Step cut	<p>•Task 15</p> <p><i><u>Details may be seen at Annexure-I</u></i></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	
			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	

			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	
			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 16	Modified Brilliant Cut	Day1	Hour 1	Orientation session of Modified Brilliant cut	<p>•Task 16</p> <p><i>Details may be seen at Annexure-I</i></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	

			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	
			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	
			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 17	French Star cut	Day1	Hour 1	Orientation session of French star cut	•Task 17 <i>Details may be seen at Annexure-I</i>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	

			Hour 4	Doping
		Day 2	Hour 1	Making of Crown
			Hour 2	Making of Crown
			Hour 3	Making of Crown
			Hour 4	Pre-polishing of crown
		Day 3	Hour 1	Pre-polishing of crown
			Hour 2	Polishing of crown
			Hour 3	Polishing of crown
			Hour 4	Re-doping of gemstone for pavilion
		Day 4	Hour 1	Making of pavilion
			Hour 2	Making of pavilion
			Hour 3	Making of pavilion
			Hour 4	Making of pavilion
		Day 5	Hour 1	Pre-polishing of pavilion
			Hour 2	Pre-polishing of pavilion
			Hour 3	Polishing of pavilion

			Hour 4	Polishing of pavilion	
Week 18	Oval cut	Day1	Hour 1	Orientation session of Oval cut	<p>•Task 18</p> <p><u>Details may be seen at Annexure-I</u></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	
			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	
			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	

			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 19	Portuguese cut	Day1	Hour 1	Orientation session of Portuguese cut	<p>•Task 19</p> <p><i><u>Details may be seen at Annexure-I</u></i></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	
			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	

			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	
			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 20	Asscher Cut	Day1	Hour 1	Orientation session of Asscher cut	<p>•Task 20</p> <p><i><u>Details may be seen at Annexure-I</u></i></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	

			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	
			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	
			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 21	Cushion cut	Day1	Hour 1	Orientation session of Cushion cut	•Task 21 <i>Details may be seen at Annexure-I</i>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	

			Hour 4	Doping
		Day 2	Hour 1	Making of Crown
			Hour 2	Making of Crown
			Hour 3	Making of Crown
			Hour 4	Pre-polishing of crown
		Day 3	Hour 1	Pre-polishing of crown
			Hour 2	Polishing of crown
			Hour 3	Polishing of crown
			Hour 4	Re-doping of gemstone for pavilion
		Day 4	Hour 1	Making of pavilion
			Hour 2	Making of pavilion
			Hour 3	Making of pavilion
			Hour 4	Making of pavilion
		Day 5	Hour 1	Pre-polishing of pavilion
			Hour 2	Pre-polishing of pavilion
			Hour 3	Polishing of pavilion

			Hour 4	Polishing of pavilion	
Week 22	Double Diamond horizontal Cut	Day1	Hour 1	Orientation session of Diamond Horizontal cut	•Task 22 <i><u>Details may be seen at Annexure-I</u></i>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	
			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	
			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	

			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 23	Double Diamond vertical Cut	Day1	Hour 1	Orientation session of Diamond vertical cut	<p>•Task 23</p> <p><i><u>Details may be seen at Annexure-I</u></i></p>
			Hour 2	Outlining & Trimming	
			Hour 3	Preforming	
			Hour 4	Doping	
		Day 2	Hour 1	Making of Crown	
			Hour 2	Making of Crown	
			Hour 3	Making of Crown	
			Hour 4	Pre-polishing of crown	
		Day 3	Hour 1	Pre-polishing of crown	
			Hour 2	Polishing of crown	
			Hour 3	Polishing of crown	

			Hour 4	Re-doping of gemstone for pavilion	
		Day 4	Hour 1	Making of pavilion	
			Hour 2	Making of pavilion	
			Hour 3	Making of pavilion	
			Hour 4	Making of pavilion	
		Day 5	Hour 1	Pre-polishing of pavilion	
			Hour 2	Pre-polishing of pavilion	
			Hour 3	Polishing of pavilion	
			Hour 4	Polishing of pavilion	
Week 24	Motivational lecture, understanding of gemstone market, Job search and field visit	Day1	Hour 1	Motivational lecture	<p>•Task 24</p> <p><u>Details may be seen at Annexure-I</u></p> <p>Final Project</p>
			Hour 2	Motivational lecture	
			Hour 3	Motivational lecture	
			Hour 4	Motivational lecture	
		Day 2	Hour 1	Understanding gemstone market	
			Hour 2	Understanding gemstone market	
			Hour 3	Understanding gemstone market	

			Hour 4	Understanding gemstone market
		Day 3	Hour 1	Job Search/ Entrepreneurial skills
			Hour 2	Job Search/ Entrepreneurial skills
			Hour 3	Job Search/ Entrepreneurial skills
			Hour 4	Job Search/ Entrepreneurial skills
		Day 4	Hour 1	Field visit / industry visit
			Hour 2	Field visit / industry visit
			Hour 3	Field visit / industry visit
			Hour 4	Field visit / industry visit
		Day 5	Hour 1	Field visit / industry visit
			Hour 2	Field visit / industry visit
			Hour 3	Field visit / industry visit
			Hour 4	Field visit / industry visit

Tasks for Certificate in Gemstone cutting / Polishing & Carving

Task No.	Task	Description	Week
1.	Introduction to Gemology , Basic Terminologies and Motivational lecture	Students will learn about the Gemology and learn the basic knowledge of gemstones and motivated lectures	Week 1
2.	Introduction to Rough Natural Gemstone	Student will be able to identify the natural gemstone by their physical properties	Week 2
3.	Introduction to Gemstone Instruments & their uses and Job Search/ Entrepreneurial skills	Trainees will be familiar about the gemological instruments and able to use the gemological instruments and entrepreneurial skills	Week 3
4.	Identification of Cut gemstones	Knowledge about cut gemstone e.g; Ruby, Emerald, Sapphire, Topaz etc.	Week 4
5.	Identification of Cut Gemstones and Gemological Microscope	Knowledge about cut gemstone and introduction & construction of gemological microscope and uses of the gemological microscope	Week 5
6.	Identification of Gemstone & Field visit	In this week students will identify different gemstone with the help of gemological instruments and will visit to gemstone market for industrial linkages	Week 6
7.	Introduction of Gemstone Cutting Machinery & Making of Cabochon	Students will be familiar with Gemstone cutting machinery and will learn making of different types of cabochon	Week 7
8.	Making of different article of gemstone	Students will be able to make different types of jewelry articles e.g. heart shape, pendent, leaf etc.	Week 8
9.	Gemstone engraving carving & Job search / Entrepreneurial skills	Skill of engraving in different gemstone articles and knowledge about job search / entrepreneurial skill	Week 9
10.	Making of Bangles & Gemstone Rings	In this week students will be able to make gemstone bangles and rings	Week10
11.	Making of Frog	Skill of making of frog	Week11

12.	Making of Birds , understanding of gemstone market & field visit	Skill about making of birds, understanding of gemstone market and field visits	Week12
13.	Introduction of Faceting Machinery, Tools & performing	Knowledge about gemstone faceting machinery, tools and method of performing of gemstone for making of different cuts	Week13
14.	Round Brilliant Cut	Students will gain the skill of making round brilliant cut	Week14
15.	Step cut	Students will gain the skill of making step cut	Week15
16.	Modified Brilliant Cut	Students will gain the skill of making Modified Brilliant Cut	Week16
17.	French Star cut	Students will gain the skill of making French star cut	Week17
18.	Oval cut	Students will gain the skill of making oval cut	Week18
19.	Portuguese cut	Students will gain the skill of making Portuguese cut	Week19
20.	Asscher Cut	Students will gain the skill of making Asscher cut	Week20
21.	Cushion cut	Students will gain the skill of making cushion cut	Week21
22.	Double Diamond horizontal Cut	Students will gain the skill of making Double Diamond horizontal cut	Week22
23.	Double Diamond vertical Cut	Students will gain the skill of making Double diamond vertical cut	Week23
24.	Motivational lecture, understanding of gemstone market, Job search and field visit	Student will visit the gemstone market and will be able to start the gemstone business	Week24

Motivational Lectures
Gemstone Cutting Polishing & Carving

[How to Use the Polariscope - YouTube](#)

[How to Use the Polariscope - YouTube](#)

[How To Identify a Gemstone using a refractometer - YouTube](#)

[Geology 101: Natural Processes that Form Colored Gemstones | GIA Knowledge Sessions Webinar Series - YouTube](#)

Workplace/Institute Ethics Guide

Work ethic is a standard of conduct and values for job performance. The modern definition of what constitutes good work ethics often varies. Different businesses have different expectations. Work ethic is a belief that hard work and diligence have a moral benefit and an inherent ability, virtue, or value to strengthen character and individual abilities. It is a set of values-centered on the importance of work and manifested by determination or desire to work hard.

The following ten work ethics are defined as essential for student success:

1. Attendance:

Be at work every day possible, plan your absences don't abuse leave time. Be punctual every day.

2. Character:

Honesty is the single most important factor having a direct bearing on the final success of an individual, corporation, or product. Complete assigned tasks correctly and promptly. Look to improve your skills.

3. Team Work:

The ability to get along with others including those you don't necessarily like. The ability to carry your weight and help others who are struggling. Recognize when to speak up with an idea and when to compromise by blend ideas together.

4. Appearance:

Dress for success set your best foot forward, personal hygiene, good manner, remember that the first impression of who you are can last a lifetime

5. Attitude:

Listen to suggestions and be positive, accept responsibility. If you make a mistake, admit it. Values workplace safety rules and precautions for personal and co-worker safety. Avoids unnecessary risks. Willing to learn new processes, systems, and procedures in light of changing responsibilities.

6. Productivity:

Do the work correctly, quality and timelines are prized. Get along with fellows, cooperation is the key to productivity. Help out whenever asked, do extra without being asked. Take pride in your work, do things the best you know-how. Eagerly focuses energy on accomplishing tasks, also referred to as demonstrating ownership. Takes pride in work.

7. Organizational Skills:

Make an effort to improve, learn ways to better yourself. Time management; utilize time and resources to get the most out of both. Take an appropriate approach to social interactions at work. Maintains focus on work responsibilities.

8. Communication:

Written communication, being able to correctly write reports and memos. Verbal communications, being able to communicate one on one or to a group.

9. Cooperation:

Follow institute rules and regulations, learn and follow expectations. Get along with fellows, cooperation is the key to productivity. Able to welcome and adapt to changing work situations and the application of new or different skills.

10. Respect:

Work hard, work to the best of your ability. Carry out orders, do what's asked the first time. Show respect, accept, and acknowledge an individual's talents and knowledge. Respects diversity in the workplace, including showing due respect for different perspectives, opinions, and suggestions.