

# GEM & JEWELLERY RESEARCH AND TRAINING INSTITUTE

Ministry of Mahaweli Development and Environment







## GJRTI HANDBOOK 2018-2020

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(Ministry of Mahawali Development and Environment)
No. 73/5/A, "Ruwan Sewana", Welivita, Kaduwela, Sri Lanka.

## **Editorial Committee**

Dr. Prashan Francis

Mr. Wasantha Gamlath

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Ms. Isuri Jayamaha

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# Vision and Mission

# Vision

Be the Regional Centre of Excellence in Research and Training in the Gem and Jewellery Industry while facilitating the Growth and Development of the Industry in Sri Lanka.

## Mission

To enhance the Competitive capability of Sri Lanka Gem & Jewellery Industry by providing high quality Research & Training services leading to Exploration of Gem Deposits, Technological Innovation, Skill and Competency Development and Quality Improvement for the satisfaction of our Stakeholders.



## Message from the Chairman

It is with great pleasure that I convey this message to the institute's prospectus, 2018. I am sure this small step could expand by leaps and bounds towards enhancing the awareness among school leavers of post-secondary education relating to gem/jewellery

field. This is a long felt need of the institute and I cordially invite students to make the maximum use of this prospectus.

Although, gem and jewellery happens to be the fourth largest export earner of the country, much of the gem materials are exported as it is and sold for a minimum price without any value addition. Most of the time, this happens due to the lack of knowledge prevalent in this field. Under the guidance of His Excellency the President, we are authorized to educate all those who are involved in the trade with the necessary knowledge, the most worthwhile asset they could possess. Thus, due to my foresight and sheer determination, we were able to overcome many hardships and were able to reach today's position as a competent teaching institution, which is acceptable to all concerned.

Since our Institute comes under the umbrella of Ministry of Mahaweli Development and Environment, most of our activities are in line with their guidelines. This is actually a blessing in disguise because both the institutions are in agreement over the sustainable use of natural resources. I firmly believe that the work force is an asset to any institution. Accordingly, much of the credit of our success must be awarded to our work force. The continuous effort of our employees especially that of the instructors, is vital for the continuous growth of our institute.

I take this opportunity to thank all those who had endeavored to make this difficult task a reality.

**Mr. Nawaratne Bandara Alahakoon** Chairman.



## **Message from the Director General**

I am conveying this message to the institute's prospectus, 2018, as the director general of this institute. It gives me great pleasure to present this prospectus to the youth of this country. These days, they are roaming everywhere to select a suitable

career. Sometimes they end up in getting entangled into some area of learning which is not worth the effort and the money spent for its selection. As such, I consider this situation to be quite pathetic considering the youth of the country.

When I took the responsibility as the director general of this institute quite a lot of improvements were expected of me. I also firmly believe that the institute cannot grow in isolation or merely following the same old principles. As such, we had to introduce new courses, developing tailor made courses, to suit the industry. In an era of advanced technologies, we continuously strive for innovation and enhanced efficiency. Our diversification-based strategy continues to function and had resulted in sustained growth and continuous improvement. So far, we have achieved remarkable success in our endeavors and are getting good response from all the people around.

In spite of the meager resources at our disposal we thoroughly look after the welfare of our teaching staff and students. Age or educational qualification is not a barrier to enroll for our courses. We have courses to suit any one. It is our pride to give them the best, most up to date knowledge in gem/jewellery field. I take this opportunity to thank all those who work hard to prepare this prospectus with promptness and efficiency.

# **Dr. Prashan Francis**Director General.



## **Message from the Director (Training)**

It is with a deep sense of gratitude I contribute this message to the first prospectus of the institute. Recently, the institute achieved immense success due to the hard work of the training staff. We were

able to introduce lot of new courses relating to gem and jewellery field and also to upgrade the present courses. Our courses were standardized to achieve NVQ levels. In addition, we were able to develop and introduce several diploma courses. This is something that was not in existence since the inception of the institute.

Innovative approach always brings success to post-secondary educational institutes. As such, I took every effort to introduce the most up to date technology to the institute. I obtained the service of several graduates to strengthen the teaching panel, thereby, making the maximum use of our resources in hand. Some of our Instructors were sent abroad to further their knowledge in their own field and to familiarize the current world trends in gem and jewellery industry.

I would take this opportunity to request our youths to follow our courses to become highly respected professionals in gem and jewellery industry. We would provide the necessary skills and these skills would surely pave a path to achieve success in life, not only today but in years to come.

#### Mr. Wasantha Gamlath

Director, Training.

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## 1. Background of GJRTI

Gem and Jewellery Research and Training Institute (GJRTI) had been established in July 1993, under Section 25 (1) of the National Gem and Jewellery Authority Act 50 to spearhead and undertake all training and research activities relevant to gem and jewellery industry. Since its inception it carried out its mandated task with uppermost devotion and gradually developed into a world class post-secondary education institute specialized in gem and jewellery training. During the long journey it had to overcome many hardships to reach the present prestigious position. It has branches covering the whole island. From time to time it came under different ministries and at present it is under the umbrella of Ministry of Mahaweli Development and Environment. Attachment to this ministry is quite appropriate because institute's activities are directly in line with the common goals of the ministry. In addition, the ministry is under the purview of His Excellency the President and this is a blessing in disguise to carry out institute's activities with less hassle because of the president's awareness of the importance of vocational education, especially gem and jewellery education.

Over the years, GJRTI had improved the quality of its courses and presently provides courses accredited up to NVQ levels. So far it had provided certificate level courses and hopes to conduct diploma level courses in all areas of gem and jewellery industry in the near future. In addition, it had associated with several leading educational institutes both local and overseas to improve its standard of education. Recently, it had purchased most sophisticated modern machinery to equip its laboratories, so that it could provide a training with hand in hand experience to students to acquire world class knowledge and skills in gem/jewellery trade. By way of achieving this goal some of our instructors were sent abroad to further their knowledge in their own field and to familiarize current world trends in gem and jewellery industry.

In order to facilitate the gem and jewellery education activities and to fulfill the national requirement of gem and jewellery industry, it had established twelve regional training centers throughout the country such as those at Kaduwela, Ratnapura, Kandy, Awissawella, Nivithigala, Galle, Polonnaruwa, Aththanagalla, Jaffna, Moragahakanda, Sooriyawava and Bingiriya.

The President of Sri Lanka declared, 2017, as the year of alleviating poverty in line with the UN's sustainable development goals. Poverty increases or decreases hand in hand with knowledge levels. The best solution to eradicate poverty is to enhance the knowledge level of the country without disparity. Knowledge enables sustainable and efficient use of resources. As such in order to achieve this goal the institute conducts several courses free of charge even providing students with some stipend to cover their bus fare. In addition, the institute conducts courses to blind, deaf, disable, prisoners, widows, war victims, etc. to stand on their own feet without being a burden to the country.

Age or educational qualifications is not a barrier to enroll for the courses. The institute has courses to suit each and every one. Its aim is to give them the best, the most up to date knowledge in gem and jewellery field. In addition to regular courses it provides tailor made courses to both local and overseas student groups and individuals. The sole idea of the institute is to develop skilled professionals to safeguard the gem and jewellery industry of Sri Lanka, the fourth largest export earner of the country.

"It is possible to fly without motors, but not without knowledge and skill"

--Wilbur Wright--

## 2. Students' Review



Punsiri Tennakoon Proprietor, Punsiri Gems

Since I hail from Kurunegala, I did not have a background in gem industry, yet my destiny paved the path to enroll for a geuda heat treatment course at GJRTI. There, I met and had the opportunity to learn the trade from a veteran in the field of geuda heat treatment, Mr. Danapala. He was instrumental for me to choose geuda heat treatment as my sole career. I am greatly indebted to GJRTI, without its guidance I could not have come this far in my business.

During my stay at GJRTI, I learned that it has the best instructors to conduct all the courses relating to gem and jewellery industry. These instructors always undergo an extra mile to fulfill the knowledge thirst of their students; this is something that does not happen in most vocational educational institutes in Sri Lanka.

My request to students is to get the maximum use of this kind of institute and unravel your hidden talents, which would eventually help you to achieve your career goals and enable you to climb the top of the ladder. Finally, I have no hesitation in recommending GJRTI for any student, who wants to enter into gem and jewellery trade and be a successful businessman in the future.



Gayani Kanchana Godakumbura
Chief Jewellery Designer, Premadasas Gem & Jewellery (pvt)Ltd

From childhood I had an artistic ability but I did not have a clear idea about the career I am going to choose in the future. Any how I had the opportunity to enroll for a jewellery designing course at the GJRTI, Ratnapura center. There, I learned the trade from Mr. Anura Samaraveera. He was a talented jewelley designing instructor and taught me everything that he is competent of.

I had thoroughly enjoyed the stay at GJRTI because everyone at GJRTI is very kind and always ready to help the students. At this institute I completed my course with flying colours getting an 'A' grade. The reputation of the institute and my grade paved the path to achieve success in my career. Currently, I work in the capacity of Chief Jewellery Designer at Premadasas Gem and Jewellery (pvt) Ltd.

Today most students enroll for computer and other similar type of courses and compete with limited job opportunities, wasting lot of time and money. My advice is if you fail to secure university admissions, then enlist for the learning of a trade and develop a skill. If you are talented and willing to work hard, sky is the limit in your career. I wish GJRTI all success and request the school leavers to get the maximum benefit of this institute.



# Saliya Aththanayaka Managing Director, Saliya Gems International

It's probably no secret that I am a huge fan of GJRTI. I love every minute of my time spent with them. I talked to many past students and learned that the present courses are more advanced due to the fact that their course material is being updated all the time to suit the current needs of the industry. The new gemology course is incredible, and it allows you to identify lot of gemstones. As such, this became one of my favorite courses.

I was a graduate hotelier, but I had a passion for gemstones. So, I attended GJRTI gemology program to fulfil my passion. This course unraveled my real talents paving the path to change my career. Today I am very happy because I could choose what I loved to do as my main career.

My favorite part of the course was the lab work. It was one of the greatest experiences in my life. As others have already stated, the course material is meticulously prepared according to international standards. In addition, my instructor was very knowledgeable and taught me everything he knew. It was really an interesting course. If you have a passion for gemstones and want a reliable place to further your knowledge in the field, GJRTI is the place, where you could achieve the maximum.

As such I would highly recommend gemology program of GJRTI to anybody who is interested to enter into gem and jewellery industry.



## Farooq Mahmood Butt Chairman, Watch and Diamond Gallery, Lahore, Pakistan

I am a Pakistan national involved in gem/ jewellery and watch industry for many years. I only knew that Sri Lankans were good at cricket and I happened to see their talents when they won the world cup in 1996 in Pakistan. When I first met and had a word with Dr. Prashan Francis at Pakistan International Gem Fair I came to know that Sri Lankans were good at many trades, especially the heat treatment of inferior quality corundum. I was inspired by the presentation given by Dr. Prashan Francis and immediately decided to learn the trade from the Sri Lankan institute at any cost.

Despite my busy schedule I was able to save some time and after having some correspondence with them I decided to learn the trade from the veterans attached to GJRTI. It was totally a new experience for me. The instructor was so knowledgeable on the subject that he taught me everything from A to Z. I loved the furnace they used, a Lankan made gas furnace called 'Lakmini'. I stayed ten days in Ratnapura, gem capital of Sri Lanka and thoroughly enjoyed my stay. I must say that people are very hospitable and hotels in Ratnapura are very cheap in comparison with other cities of the world.

Thanks to GJRTI, I now successfully practice the heat treatment of corundum in addition to my usual business. I recommend to all my fellow Pakistanis Sri Lanka's GJRTI, as the best place to acquire expertise in gem/jewellery trade.



"Our Institute is well equipped to carry out world class research relating to gem minerals/jewellery and to provide students with hand to hand experience with most up to date highly sophisticated machinery used by the industry all over the world"

## 3. Facilities

## 3.1. Instrumental facilities

In order to provide world class education to students it is compulsory to give them hand to hand experience in most up to date sophisticated instruments/machinery used throughout the world. As such the laboratories are equipped with all the necessary instrumentation. The range of facilities include gem testing laboratories; heat treatment plant; lapidary and jewellery manufacturing workshops; casting plant; computer unit; lecture halls; common rooms; etc. Our testing laboratories and workshops are equipped with the type of instruments listed as follows:

Gem Testing Laboratory	Lapidary Workshop	Heat treatment	Jewellery workshop	Advance analytical
		facility		instruments
Stereo zoom binocular Microscopes	Gem cutting slab saw/ trim saws	'Lakmini' gas Furnace	Micro setting Stations	Energy dispersive X- ray fluorescence machine (ED-XRF)
Immersion microscopes (conventional & horizontal)	"Imahashi type" Gem faceting machines	Electric tube furnace (2000°C)	Sand- blasting machines	UV-Vis Spectromet er
Polarizing microscopes	"High precision Israel type" Gem faceting machines	Digital pyro meters	Ultra-sonic vibrators/ Sonic cleaners	Fourier- transform infrared spectroscop e ( FTIR)

Refractometers (lese type & digital)	"Jamb Peg type" Gem faceting machines	Electric muffle Furnace (12000C)	Magnetic tumblers	Raman Spectromet er
All types of Polariscope/ Dichroscope	High precision digital faceters	Chillers	Air- operated Engraving machines	Isodynamic Separators
Prism and diffraction grating spectroscopes	Dopping stations	High temperature crucibles	Vacuum Casting plants	Laser particle size analyzer
Chelsea filters & other colour filters	Tumbler machines (Rotary & Vibratory)	Different type of thermo couples	Investment mixtures	High precision polarizing microscopes
Diamond grading station	"Imahashi type" Gem carving machines		Electric muffle furnace	GIS meters and gemstone scanners
Cold light and fiber optic lights			CAD/CAM machines	Distilled and ionic water plants

"Man is a tool-using animal. Without tools he is nothing, with tools he is all"

--Thomas Carlyle--

## 3.2. Library and recreation facilities

The institute has a small but well-equipped library facility having a large collection of books and journals on gemmology, geology, geochemistry and Jewellery. In addition, the library has a collection of diploma projects/ thesis obtained by GJRTI students and employees. Students also have internet/Wi-Fi and audio-visual facilities to acquire global knowledge relating to the industry as well as course notes and lecture notes.



"Our faculty has a great number of both internationally and locally qualified professionals, who have had their say in the creative industries and are now sharing a wealth of experience with GJRTI students"



## 4. Faculty Members

## 4.1. Internal members

#### 4.1.1. Gem related studies



Dr. Prashan Francis

Director General/ Lecturer Gem and Jewellery Research and Training Institute B.Sc. Special(Geo.,SL), M.Sc.(Gem.,SL), M.Sc.(Petro.,Canada), Ph.D. (Gem.,SL), Dip.Mkt(UK), G.G. (GIA, USA), A.J.P. (GIA, USA), MGA(SL)

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#### **About Me**

I received my B.Sc. (special) degree in Geology from the University of Peradeniya, Sri Lanka, in 1996 and MSc degree in Gemology from the same university in 1999. Thereafter, I completed my MSc degree in petroleum geology from the University of Alberta, Canada and PhD in mineralogy from the University of Moratuwa, Sri Lanka. In addition, I am a graduate gemologist (G.G.) and an accredit jewellery professional (AJP) attached to GIA, New York. I have worked for number of years in gem industry and upstream hydrocarbon industry as a professional and have both local and overseas experience. My research focuses on fluid inclusion analysis and reaction textures of gem minerals.

#### **Teaching**

Gemmology, advanced methods in gemstone identification, Colour grading/marketing, rough gemstone identification, diamond grading, rough diamond sorting, gemstone heat treatment, gemstone cutting/faceting, etc.



#### Wasantha Gamlath

Director (Training)/ Lecturer
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#### **About Me**

I obtained my B.Sc. Special degree in Physics and M.Sc. post graduate degree in gemmology from the University of Peradeniya, Sri Lanka. In addition, I have Gem-a diploma in gemmology from the gemmological Association of Great Britain (FGA). I have involved in gem/ jewellery sector for more than sixteen years and have wide experience in most areas of the field. At present work as the Director training and at the same time involved in teaching. My research focuses on mineral physics and instrumentation especially gemological instruments, based on fundamentals of Physics.

#### **Teaching**

Gemmology, advanced methods in gemstone identification, Colour grading/marketing, rough gemstone identification, jewellery manufacturing basics etc.



Dr. Murthi S. Kandanapitiye

Senior Researcher /Lecturer Gem and Jewellery Research and Training Institute B.Sc. (Hons) Chemistry Special, PhD (USA)

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#### **About Me**

I am a solid-state chemist with more than an eight years experiences in the field. I received my BSc (Hons) Chemistry special degree from the University of Colombo, Sri Lanka 2007 and PhD in Inorganic chemistry from the Kent State University, United states in 2015. Thereafter I worked as a postdoctoral research fellow in Prof. Min-Ho Kim lab for few years. The experiences gained there enable me to carry out world class research at GJRTI. My Current Research Focuses on to harness the physicochemical properties present in low quality gems. Further, enhancing the colour of low quality gems stones by experimenting on effect of temperature and pressure that leads to phase changes.

#### **Teaching**

My teaching areas include advance methods in Gemstones identifications (Analytical tools such as XRF, XRD, ICP-MS, SEM etc.)



R.M.N.P.K. Jayasinghe
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#### **About Me**

I obtained my Bachelor of Science (B.Sc.) degree with Geology from the Faculty of Science, University of Peradeniya, Sri Lanka. Then, I obtained my Master of Science (M.Sc.) degree in GIS and Remote Sensing from the same university. Currently, I am an M.Phil candidate at University of Peradeniya. My researches focus on exploration of gem potential areas and value addition of gemstones. In addition, I have special interest in geomorphometry, geochemistry and sustainable gem mining.

#### **Teaching**

Gemmology, value addition of gemstones, GIS and Remote Sensing



A.G.D. Fernando

Instructor (Gemmology)
Gem and Jewellery Research and Training Institute
Dip. in Teacher Training, Dip. in Gemology (MOU)

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#### About me

I have thirty years' experience in gem/jewellery sector. I started my career as gem cutting instructor and completes 13 years of service attached to National Gem Cooperation. Thereafter I started working as the Instructor, Gemmology and completes seventeen years' experience in the sector. During my career I completed certificate and diploma courses in gemology from the university of Moratuwa, Sri Lanka. I have trained many students in this sector and most of them do well on the gem/jewellery business.

### Teaching

Gemmology, gem cutting



#### Sandun Illangasinghe

Researcher/ Lecturer Gem and Jewellery Research and Training Institute BSc, Mphil, PGCert

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#### **About Me**

I received my Bachelor of Science degree in Natural Resources from the Sabaragamuwa University of Sri Lanka in 2005 and Master of Philosophy in Earth Sciences from Postgraduate Institute of Sciences, University of Peradeniya, Sri Lanka in 2010. Thereafter I completed the Postgraduate Certificate in assessment and management of geological/ climate related risk attached to Faculty of Science, University of Geneva, Switzerland and Certificate in mineral Processing and Beneficiation from MINTEK, Johannesburg, South Africa. My research focusses on the area of earth surface process, surface geochemistry, value addition low quality gem minerals and crystal chemistry of gemstones.

#### **Teaching**

Modern methods in gem identification, heat treatment of gemstones especially corundum (Poor quality ruby and sapphires)



#### J.H. Isuri Jayamaha

Assistant Director (Gemmology)/ Lecturer Gem and Jewellery Research and Training Institute B.Sc. special (Chem sp , USJP)

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#### About me

I received my B.Sc. Special degree in chemistry from the University of Sri Jayewardenepura, Sri Lanka. After some time, I was involved in a research relating to Anti Cancerous Drugs. Currently my research focusses on developing an all-purpose lotion/cream, incorporating gem minerals as raw material, for the treatment of wounds.

#### **Teaching**

Basic gemmology, analytical chemistry



M.K.C. Jayamali
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B.Sc. (Geology), M.Sc. (GIS & Remote Sensing), M.Sc. Gemmology
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#### About me

I received B.Sc. degree in physical sciences with Geology from the University of Peradeniya in 2011. Thereafter, I have completed my master's degree in the field of GIS and Remote Sensing (Earth Sciences) from the University of Peradeniya in 2013. Currently I have completed the academic part of the M.Sc. in Gemmology at the same university. I have more than ten years' experience in the field of geology and gemmology. My research focus on gem exploration and GIS / Remote Sensing.

#### **Teaching**

Earth science, gemmology



M.G.K. Jayamaha

Instructor (Heat Treatment)/ Officer-in-charge, Nivithigala center Gem & Jewelry Research and Training Institute B.Sc. Sp. (Mineral Processing Technology), DGem,SL

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#### **About Me**

I received my Bachelor of Science special degree in Mineral Processing Technology from Uva Wellassa University, Sri Lanka in 2016 and carried out 'Geuda Heat Treatment' research project as a partial fulfilment of my final year research project. While studying, I have involved in gem industry for several years. Later I joined Multi Gems company and completed 'DGemSL' from Gemological Association of Sri Lanka while working there as a manager. At present I work as the Officer-incharge of GJRTI, Nivithigala Center in addition to my role as an instructor. My research focus on value addition of inferior quality gemstones via heat treatment.

#### **Teaching**

Gemmology, Rough gemstone identification, Gem cutting & polishing, Geuda Heat Treatment



Isuranga Dayarathne

Instructor (Gemmology)
Gem and Jewellery Research and Training Institute
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#### **About Me**

I received my B.Sc. Special degree in Mineral Processing Technology from the Uva Wellassa University in 2017. I have completed Diploma in Gemmoloy from Gemmologist Association of Sri Lanka in 2016. Currently I am following my master's degree in Gemmology and industrial Mineral from the University of Peradeniya, Sri Lanka. I am a native of gem capital of Sri Lanka, Ratnapura and had the opportunity familiarize with the gem trade from childhood. I have nearly two years of experience in gem and jewellery industry as a professional. My research focus on gem bearing pegmatite deposits.

#### **Teaching**

Gemmology, Gem cutting & polishing, Geuda Heat Treatment and Rough gemstone identification



Subhashini Konara

Instructor (Gemmology)
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#### About me

I received my B.Sc.(Special) degree in mineral Resources & Technology from the Uva Wellassa University, in 2017 and now reading for M.Sc. in Gemmology from the University of Peradeniya. In addition, I completed the Diploma in Gemmology attached to Gemmologists' Association of Sri Lanka and have nearly two years' experience in gem industry. Mostly I undertake tailor made gemmology courses conducted for small groups (local and Overseas) and individuals. I am also an active member of the course developing committee. My research focuses on locality differences of gem minerals especially variety of abundant inclusions found within specific localities.

#### **Teaching**

Gemmology, Rough Gemstone Identification, Gemstone cutting and polishing



S.Wijewardane

Researcher/ Lecturer, Gem and Jewellery Research and Training Institute B.Sc. (Hons) Geology(Sp.), M.Sc. Gemmology (Rd), MGSSL

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#### About me

I received B.Sc. special degree in Geology from the University of Peradeniya in 2009. Currently I have completed the academic part of the M.Sc. in Gemmology from the same university. I have number of years' experience in the field of geology (earth science) and gemmology. I am interested in the fields of gem exploration, petrology/mineralogy and gemstone studded artifacts having archeological importance. My research focuses on cameos, beads and intaglios having archeological importance

**Teaching**Introduction to Earth Science, gemmology



#### Saranga Diyabalanage

Researcher/ Lecturer Gem and Jewellery Research and Training Institute B.Sc. (Hons) Applied Sciences (Sp), M.Phil (Geochem., Reading), MGGSL.

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#### **About Me**

I received my B.Sc (Special) degree in Applied Sciences specializing in Earth Sciences from the Sabaragamuwa University in 2013 and currently reading for an M.Phil. degree in Geochemistry from the University of Peradeniya. My main research activities are in the field of environmental chemistry and have both local and overseas experience in using advanced analytical instruments. Currently I am working on identifying the applicability of low quality minerals/ gems in the areas of environmental remediation along with identifying chemical fingerprinting characteristics of gemstones. In addition to my routine duties I also look after the analytical instruments and provide students with hands on experience where necessary.

#### **Teaching**

Advance methods in gemstone identification (analytical tools such as FTIR, Raman, UV-Visible, LA-ICPMS, XRF etc.)



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#### About me

I was graduated from the University of Ruhuna, Sri Lanka in 2016. I received my degree in Biological Sciences, Specializing Chemistry. Thereafter, I worked as a demonstrator at Department of Chemistry, University of Ruhuna for some time. Currently my research focus on value addition of low quality gemstones, physiochemical properties of gem material and their potential applications in medicine.

**Teaching**Value addition of gemstones



#### Asanka Wimalaweera

Instructor (Gem Cutting and Polishing, Gemmology) Gem and Jewellery Research and Training Institute Cert. Gemology (UOM), Cert. Lapidary Techniques

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#### **About Me**

I was involved in gem industry for almost ten years as a capacity of gem cutter and latter part as a master cutter. I have experience in all aspects of gem cutting and polishing. In addition, I have completed certificate in Gemmology from the University of Moratuwa. During my carrier I happened to cut many valuable stones with minimum of wastage, winning accolades from the owners. I have worked for number of local and overseas lapidary companies and have wide experience in precision cutting and quality. My research focuses on finding ways and means to cut fragile gemstones with minimum of damage.

### **Teaching**

Gem cutting and Polishing, Gemmology



L.A. Kumudu kumara

Instructor (Gem Cutting and Polishing)
Gem and Jewellery Research and Training Institute

Kandy Regional Center, College of Technology, Aruppala, Kandy Office Phone Number: +94814946332 Email: gemandjewellerykandy@gmail.com

#### About me

I have a Diploma in Lapidary from the Sri Lanka Export Development Board and started working for State Gem Corporation as a gem cutting instructor since 1991. Once, GJRTI was established I joined it in the same capacity in 2000 and continue to work in the same institute up to now. In addition, I have some management qualifications from EDB and NIBM. So far, I have trained many a number of gem cutters and most of them are doing well in their trade as gem cutters.

**Teaching**Gem cutting and polishing, gemmology



D.W .Chithrangani

Instructor (Gem Cutting & Polishing)
Gem & Jewellery Research & Training Institute
Cert. Lapidary Techniques (TVEC)

Rathnapura Regional Center, Hidellana, Rathnapura Office Phone Number: +94452228088 Email: manikmax7@gmail.com

#### About me

I received my NVQ Level — Certificate in Lapidaries from the Tertiary and Vocational Education Commission, Sri Lanka and completes nearly fifteen years' experience as a gem cutter. I am thoroughly conversant with all type of lapidary machines and techniques. During my career I have trained both local and overseas students to the uttermost satisfaction to them and the management. Most of my students do well in both local and overseas lapidary companies.

## **Teaching**Gem Cutting & Polishing



**Chandima Nilantha Wewegedara** 

Researcher/Lecturer
Gem and Jewellery Research and Training Institute
B.Sc. Sp. (Mineral Resources & Tech.), MSc (Gemmology, Reading),
MGSSI

No. 73/5/A, "Ruwan Sevena", Welivita, Kaduwela, Sri Lanka Office Phone Number: +94-11-4324673

Email: chandimawgcn@gmail.com

#### **About Me**

I received my B.Sc. (Special) degree in Mineral Resources and Technology specializing Mineral Processing Technology from the Uwa Wellassa University of Sri Lanka in 2013 and currently reading for MSc degree in Gemmology from the University of Peradeniya, Sri Lanka. I have several years' experience relating to minerals especially gem minerals. My main research activities are in the field of mineralogy and gem exploration. Currently my research focuses on quality enhancement of low quality gems.

**Teaching**Gemmology, Earth science



#### Nadeeka Chamani Manthrirathna

Researcher/Lecturer Gem and Jewellery Research and Training Institute BTech (Sp. in material Science), MSc (Nano Science & nano tech., Reading)

No. 73/5/A, "RuwanSevena", Welivita, Kaduwela, Sri Lanka Tel: +94-11-4324673

Email: nadeeka.manthrirathna@girti.gov.lk, nadeekamn@gmail.com

#### **About Me**

I received my B.Tech. (Special) degree in Sciences and Technology specializing in Material Sciences from the Uwa Wellassa University of Sri Lanka in 2013 and currently reading for MSc degree in Nao Science & nano technology from the University of Peradeniya. My main research activities are in the field of material chemistry based on minerals. My research focusses on the use of inferior quality gem mineral as a filler in polymer composites.

#### **Teaching**

Introductory Earth science, Gemmology



N.P.W.D.Sachini Dilrukshi Rodrigo

Researcher/Lecturer Gem and Jewellery Research and Training Institute B.Sc. (Hons) Chemistry (Sp.)

73/5/A, 'Ruwan sewana', Weliwita, Kaduwela, Sri Lanka.

Office phone no: +94-114324673 Email: sachee.0505@gmail.com

#### About me

I received my B.Sc. special degree in Chemistry from the University of Jaffna in 2016 and I have oneyear teaching experience as a Demonstrator at department of chemistry, university of Jaffna. Currently I am working on a research project which involves developing a value addition method to enhance the colour and clarity of low quality sapphires. I am interested in the fields of Chemistry, Gemmology and Mineralogy.

Teaching

Geuda heat treatment



W.A.D.T.L. Wijesinghe

Researcher/ Lecturer Gem and Jewellery Research and Training Institute B.Sc. (Hons) Geology(Sp.), DgemSL, MGSSL

73/5/A, 'Ruwan sewana', Weliwita, Kaduwela, Sri Lanka. Office phone no: +94-114324673

Email: lakmal.ged@gmail.com

#### About me

I received B.Sc. special degree in Geology from the University of Peradeniya in 2014 completed the D.gemSL course conducted by gemmologist association of Sri Lanka. I have experience in the field of geology (earth science, disaster management and geotechnical engineering) since 2014 and in gemmology since 2017. I am interested in the fields of gem exploration, petrology/mineralogy, geochemistry, geophysics, hydrogeology, and geotechnical engineering. My research focusses on field surveys and sampling to find ways and means to isolate gem bearing areas.

#### **Teaching**

Introductory Earth science, Gemmology



V.G.Chinthaka Gamini Dissanayake

Instructor (Gem cutting and Polishing)
Officer-in-charge of Polonnaruwa Regional Training center
Gem and Jewellery Research and Training Institute
Cert. Lapidary techniques

 ${\bf Polonnaruwa}\ {\bf Regional}\ {\bf Center}, {\bf College}\ {\bf of}\ {\bf Technology},\ {\bf Polonnaruwa}$ 

Office Phone Number: +94274929152

#### About me

I have learned the gem cutting trade from GJRTI and work number of years for local and overseas lapidary companies as a capacity of gem cutter. I have through knowledge in all aspects of gem cutting especially precision cutting.

**Teaching**Gem Cutting, Gemmology



#### Samanthika Damayanthi Manike

Instructor (Gem Cutting and Polishing)
Officer-in-charge of Avissawella Regional Training center
Gem and Jewellery Research and Training Institute
Cert. Gem cutting and Polishing (TVEC)

Awissawella Regional Center, Awissawella Office Phone Number: +94364932118

#### About me

I have completed Gem Cutting and Polishing NVQ Level 04 course at Sri Lanka Vocational Training Authority. In addition, I have successfully completed certificate course in Gemmology at the University of Moratuwa in 2008/2009.I have 20 years working experience in Gem cutting and polishing.

# **Teaching**Gem cutting, Gemmology



J.M.C.K.Jayasundara

Researcher/Lecturer Gem and Jewellery Research and Training Institute B.Sc. (Hons) Geology(Sp.), DgemSL

73/5/A, 'Ruwan sewana', Weliwita, Kaduwela, Sri Lanka.

Office phone no: +94114324673 Email: chamila.ged@gmail.com

#### About me

I received my B.Sc. special degree in Geology from the University of Peradeniya in 2014 and also completed the D.gemSL course conducted by gemmologist association of Sri Lanka. I have experience in the field of Geology (earth science and geotechnical engineering) since 2014 and in gem minerals since 2017. I am interested in the fields of gem exploration, petrology/mineralogy, geochemistry and geotechnical engineering. My research focusses on gemstone exploration and best practises to harness the gemstone resources in environmentally friendly and sustainable manner.

**Teaching**Introductory Earth science, Gemmology

### 4.1.2. Jewellery related studies



Lasni Surendra

Assistant Director (Jewellery)/Lecturer Gem and Jewellery Research and Training Institute B.Sc. Design (UOM)

No.73/5 A, "Ruwan Sewana", Walivita, Kaduwela, Sri Lanka. Office Phone Number: +94114329803

#### About me

I received my B.Design Degree at University of Moratuwa, Sri Lanka. In addition, I have Successfully completed the Certificate in Gemology course from the same university. I have 3 years working experience in Sams Gems pvt Ltd as a jewellery designer and another 3 years working experience in Computer aided jewellery designing at Humris Pvt Ltd, Sri Lanka and experience in using JewelCAD, Rhino, Matrix software. In addition, I am thoroughly conversant in CAD/CAM relating to Jewellery manufacturing.

#### **Teaching**

Jewellery Designing, CAD designing, Gemmolgy



Nuwanthi C. Wijesinghe

Assistant Director (Programme and Curriculum Development)/Lecturer B.Sc. (Chem Sp., USJP), M.Sc. (Material Science, Reading, UOM)

No. 73/5/A, "Ruwan Sewana", Walivita, Kaduwela.

Office Phone Number: +94114329802 Email: nuwanthi.wijesinghe@gmail.com

#### About me

I have a B. Sc. Special degree in chemistry from the University of Sri Jayewardenepura, Sri Lanka. Currently, I'm reading for M.Sc. in Material science and Engineering at University of Moratuwa. My research interest is more towards metallurgy-based material science such as metal soldering techniques, strengthening metals by heat treatments, tempering of steel alloy etc. In addition to the research experience, I have two years academic experience in University of Sri Jayewardenepura and the Open University of Sri Lanka.

#### **Teaching**

Crystallography, jewellery manufacturing esentials (heat treatment of metal, metal soldering etc.)



K.G. Suneetha Devanarayana

Training Officer (Jewellery Designing), Officer-in-charge, Galle center Gem and Jewellery Research and Training Institute

Galle Regional Center, College of Technology, Galle. Office Phone Number: +94914943592

#### About me

I am the most senior jewellery designer attached to GJRTI and completes 32 years' experience as Jewellery designer. I started my career as the Jewellery designer attached to the State Gem Cooperation and climbed to the top as the chief jewellery designer. When this institute established I joined as the Jewellery designing instructor. I have completed number of jewellery designing courses and recently had the opportunity to completes a short course in jewellery designing at GJRTI, Thailand. During my lengthy career I have won many awards for my work some of them are as follows.

Golden Pencil Awards – 1992 (Export DEVE. BOARD)

Jewellery design competition – 1997 (Hemachandra Brothers Jewellery)

Sri Lanka Jewellery Design Award – 2002 (Japanese Jewellery Category – E.D.B)

Sri Lanka Jewellery Design Award – 2002 (Ceylon Sapphire Jewellery. Category- E.D.B)

Unique Sri Lanka Jewellery Design Award (2012 – S.L.G.A – Colour Stones Jewellery Category)

## Teaching

Jewellery Designing



**B.N.D. Kamal Batagoda** 

Instructor (Jewellery Manufacturing)
Officer-in-charge of Ratnapura Regional Training center
Gem & Jewellery Research & Training Institute
Subject Head (Jewellery), Assessor TVEC (NVQ), Dip. in Jewellery
Design & Manufacturing Technology

Rathnapura Regional Center, Hidellana, Rathnapura Office Phone Number: +94452228808 Email: Kamalbatagoda@gmail.com

#### About me

I hold a Diploma in Jewellery — Design & Manufacturing Technology and involved as an assessor TVEC (NVQ) in the post of Jewellery Marker & stone setter under (BA/2119/2016). In addition, I completed a comprehensive jewellery manufacturing course attached to Technical College, Hubei Province, China. I have worked nearly twenty years in Jewellery industry and have both local and overseas experience. During my lengthy career I have won number of awards in national / international jewellery competitions and trained many students. Most of them holds prestigious positions in both local and overseas jewelley companies.

**Teaching**Jewellery Manufacturing, Stone Setting



#### **Anura Sanath Samaraveera**

Instructor (Jewellery Design)
Gem & Jewellery Research & Training Institute
Subject Head (Jewellery Design), Dip. in Jewellery Design &
Manufacturing Technology

Rathnapura Regional Center, Hidellana, Rathnapura Office Phone Number: +94-45-2228808 Email: Sanathanura536@gmail.com

#### About me

I received certificate in Jewellery Designing from GIA and holds Diploma in Jewellery — Design & Manufacturing Technology from Sri Lanka. In addition, I have followed a short course in Jewellery designing from GIT, Thiland. I have worked nearly twenty years in Jewellery industry and have both local and overseas experience in my field (K.S.A-3 ½ years). So far, I have trained many students and some of them hold senior designer positions in reputed jewellery companies. During my career I have won number of awards for my designs.

# **Teaching**Jewellery Designing



#### H. Mapalagama

Instructor (Jewellery Manufacturing)
Officer-in-charge of Kandy Regional Training center
Gem and Jewellery research & Training Institute
Dip. in Jewellery Design & Manufacturing Technology

Kandy Regional Center, College of Technology, Kandy

Office Phone No: +94812236136

Email: gemandjewellerykandy@gmail.com

#### **About Me:**

I received my "National Diploma in Jewellery Design and Manufacture" from, Sri Lanka Technical Institute, Maradana, in 1988. Thereafter I gain lot experience in Jewellery Designing and Stone Setting while working for many reputed jewellery manufacturing companies. In addition, I have completed a course relating to business ownership attached to Small Enterprises Development Division. After some time, I involved with my own business, exporting jewellery to Germany, where I gained lot of exposure relating to world trends in modern jewellery. Later I joined Gem & Jewellery Research & Training Institute as a capacity of instructor and so far completes almost 30 years of experience in the field of gem & jewellery manufacturing.

## **Teaching:**Jewellery Manufacturing, stone setting



**B.N.D Roshan Ranga Dayarathna** 

Instructor (Jewellery manufacturing)
Gem and Jewellery Research and Training Institute
Dip. in Jewellery Design & Manufacturing Technology

No.73/5 A, "Ruwan Sewana", Walivita, Kaduwela, Sri Lanka. Office Phone Number: +94114324676

#### About Me

I have successfully completed the Jewellery Manufacturing and Designing Diploma (NVQ Level 5) and have 13 years' Experience in all aspects of jewellery manufacturing including bench jewellery, casting/plating. In addition, I have a thorough knowledge in assaying and Hallmarking. During my career I have trained many students and most of them doing well in both local and overseas jewellery companies. Some of my creations secure a place in national jewellery competitions on number of occasions.

#### **Teaching**

Jewellery Manufacturing and stone setting since 2003.



A.M.A Janaka

Instructor (Stone Setting & Casting)
Gem & Jewellery Research & Training Institute
Cert. Jewellery Manufacturing (TVEC)

Rathnapura Regional Center, Hidellana, Rathnapura Office Phone Number: +94452228808 Email: janakawaraniyagoda@gmail.com

#### About me

I received my NVQ Level-4 Certificate in Jewellery Manufacturing from the Tertiary and Vocational Education Commission, Sri Lanka and worked nearly ten years in Jewellery Industry. I have experience in all areas relating to jewellery industry especially stone setting. As Such currently I headed the stone setting department at GJRTI.

#### **Teaching**

Jewellery Manufacturing, Stone Setting, Enamel Jewellery, Casting



U.W.K.A. Ruvinda Chandrakantha

Instructor (Jewellery Casting and Plating)
Gem and Jewellery Research and Training Institute
Cert. in Jewellery Manufacturing

No.73/5 A, "Ruwan Sewana", Walivita, Kaduwela, Sri Lanka. Office Phone Number: +94114324676

#### **About Me**

I have successfully completed the certificate course in Jewellery Designing and Jewellery Manufacturing at Gem and Jewellery Research and Training Institute, Rathnapura. I have nearly 9 years of experience in Jewellery casting at 'De Saedeleer Arts and Creations, Sri Lanka. In addition, I have 8 years of experience in Jewellery Manufacturing at Star Lapidary. At present I headed the casting facility at GJRTI main training Center at Kaduwela.

#### **Teaching**

Jewellery Manufacturing, Casting and Plating, Enamel Jewellery

## 4.2. Contributing Faculty Members

In addition to the internal faculty members, there are many university lecturers and industry experts share their expertise as contributing faculty members, where necessary.





## 5. Course Details

#### 5.1. Gem related studies

## 5.1.1. Gemmology Diploma

## 5.1.1.1. Registration details

Applicant is expected to refer to the relevant advertisement in printed or electric media or GJRTI website for details regarding the commencement of the diploma program. Relevant application forms can be obtained from GJRTI head office/regional centers or it can be downloaded from GJRTI official website.

Applicants are advised to submit certified photocopies of original certificates and two letters of recommendations along with the completed application form. Duly completed application forms should be forwarded to GJRTI coordination office before the closing date.

Applications received would be shortlisted by a qualified committee and those, which are incomplete or found with false information shall be rejected without any notification. Qualified candidates would be summoned for a structured interview before the commencement of the program.

According to institutional regulations candidates should have either the first or the second requirement stipulated below to complete their registration.

- 1. General certificate of advance level or equal qualification.
- A certificate issued by a foundation course, which is equivalent to SLQF 2 or the completion of NVQF level 4 or accredited minimum of two years' work experience or a credit pass in the certificate course in gemmology conducted by GJRTI, finally passing the aptitude test that would be held next.

#### 5.1.1.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

- Fees for the tuition and registration will not be refunded under any circumstances
- Gemology practical guide will be provided free of charge at the time of registration.
- A reference guide and a basic gem stone set can be purchased for a discounted price according to the students' requirement from the GJRTI coordination office.
- Full course fee or 50% of the total program fee and other fees (excluding those given in 5.1.1.2.1. to 5.1.1.2.7.) should be paid at the time of registration. The balance program fee should be paid within a period of three months after the first date of registration.
- After completion of the application procedure, all the payments should be deposited to account no. 001015948 at BOC bank, Malabe, naming the account holder as 'Gem and Jewellery Research and Training Institute'.
- A copy of the payment slip should be submitted to GJRTI coordination office on or before the commencement date of the course to proceed with the enrollment.

	Description	Local Candidates Fee (Rs.)
5.1.1.2.1.	Application fee	250
5.1.1.2.2.	Registration fee (per program)	1,500
5.1.1.2.3.	Gemology Diploma Program fee	100,000
5.1.1.2.4.	Library deposit (per program) - references only	500
5.1.1.2.5.	Laboratory deposit (Refundable)	5,000
5.1.1.2.6.	Repeat course fee (per credit)	1,000
5.1.1.2.7.	Transcripts (per additional issue)	500

## 5.1.1.3. Credit Allocation and Grading System

The Grade Point Average (GPA) will be computed using the grades earned at core courses, optional courses and the final project.

On completion of the course (examinations/all modules) the instructor(s) is/are required to hand over the grades of each module to the program coordinator who will then assign the Grade Points using the following table.

Grade	Grade Point
A+	4.0
Α	4.0
A <sup>-</sup>	3.7
B <sup>+</sup>	3.3
В	3.0
B <sup>-</sup>	2.7
C <sup>+</sup>	2.3
С	2.0
F	0.0

According to SLQF 3 diploma standards, a prospective student should follow a minimum of 30 credits and cover 1500 notional hours to obtain the diploma certificate. The following core and elective subjects are offered by GJRTI for the gemmology diploma 2018/2019.

Module Code	Module	Туре	No of Credits	Notional hours	Lectures/ Tutorials	Practical/ Field Visit
Gem_5101	Gem Materials/ Physical Properties of gem stones/ Durability in Gem Materials/ Units of Measurement essential to this course	С	1	50	10	15
Gem_5102	Geology relating to gem minerals	С	1	50	7.5	22.5
Gem_5103	Chemical Properties of Gem Materials	С	1	50	15	00
Gem_5204	Crystallography of gem minerals	С	2	100	15	45

Gem 5205	Optical Properties/	С	2	100	15	45
	Transparency, Reflection	-				
	and Dispersion/					
	Directional Optical					
	Properties/ Physical Optics	_				
Gem_5106	Polarized Light	С	1	50	7.5	22.5
Gem_5107	Refraction	С	1	50	7.5	22.5
Gem_5108	Color/ The Absorption Spectrum and the	С	1	50	10	15
	Spectroscopy					
Gem 5109	Non-Visible Radiation /	С	1	50	10	15
_	Energy/ Fluorescence/					
	Thermal Conductance and					
	Electrical conductivity					
	probes					22.5
Gem_5110	General study of the	С	1	50	7.5	22.5
	advanced analytical methods in gem testing					
Gem 5111	Optical Magnification	С	1	50	7.5	22.5
Gem 5112	Description and Methods	C	1	50	10	15
	of Identification of Natural	_			·	
	Inorganic Gem Materials					
Gem_5113	Additional Gem materials/	С	1	50	10	15
	Description of Gem					
	materials of Organic Origin					
Gem_5114	Artificial Gem materials/	С	1	50	10	15
	Non – Crystalline artificial materials/ Imitation and					
	Composite Gem materials					
Gem 5115	Treated gem materials	С	1	50	7.5	22.5
Gem_5116	Fashioning of Gem stones	0	1	50	7.5	22.5
Gem_5117	Valuation and marketing/	0	1	50	7.5	22.5
	Trading Procedure in the					
	internal trade in Sri Lanka					
	and the export Procedure.					
Gem_5118	Gems in Jewellery	0	1	50	7.5	22.5
Gem_5319	Overall Practical	С	3	150	00	135
Gem_5220	Project	С	2	100	15	45
Gem_5321	Final Exam- Theory	С	3	150	45	00
Gem_5322	Final Exam- Practical	С	3	150	00	135

A student is allowed to repeat four credits of coursework free-of-charge. The maximum number of credits a candidate is allowed to repeat is twelve. The maximum grade, a candidate could obtain at a repeat attempt is a C. The candidate is expected to handover the duly completed and signed 'Registration Form for Repeat Courses/Examinations' together with the 'repeat course/examination fee' payment receipt to the Assistant Director (Curriculum Development) of the GJRTI.

## 5.1.1.4. Examination Regulations

For all modules a minimum of 70% attendance is expected. The evaluation of each module shall be based on examinations held during the course and at the end of course and on assignments. The weight of marks given below can generally be used as a guideline in the computation of the final grade.

End of course examination 60%

Continuous Assessments 40%

(mid semester examinations, assignments, etc.)

Courses with laboratory and/or fieldwork shall be evaluated, where applicable, on a continuous assessment basis.

Based on the scheme given above, the overall performance of a student in a given course will be evaluated by the respective instructor(s) and a grade will be assigned. The minimum grade, a student should achieve to pass a course is C. Final project will be evaluated on the basis of a written report and an oral presentation.

## PHOTO GALLERY









Gemmology



Jewellery Design(Manual)



Marketing



Colour Grading



Jewellery Manufacturing



Computer Aided Jewellery Design



**Geuda Heat Treatment** 



Gem Cutting & Polishing







## 5.1.2. Basic Gemmology

## 5.1.2.1. Registration details

Applicant is expected to refer to the relevant advertisement in printed or electric media or GJRTI website for details regarding the commencement of this course. Relevant application forms can be obtained from GJRTI head office/regional centers or it can be downloaded from GJRTI official website and duly completed application forms should be forwarded to GJRTI coordination office before the closing date. In addition, candidates could register online via our website or email the duly filled application to training@gjrti.gov.lk. Persons who are interested in gem businesses and practical applications related to gemmology are earnestly requested to join this course and there are no limitations for age, gender or educational qualifications for the applicants.

#### 5.1.2.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration.

After completion of the application procedure, all the payments should be deposited to *account no. 001015948 at BOC bank, Malabe, naming* the account holder as 'Gem and Jewellery Research and Training Institute'.

A copy of the payment slip should be submitted to GJRTI coordination office on or before the course commencement date to proceed with the enrollment.

Description	Local candidate fee SL Rs.
Registration fee	500
Course fee	15,000

## 5.1.2.3. Course Outline and Examination Regulations

This course volume consists of 100 theory hours and 75 practical hours with equal weightage of NVQ 2 and following topics will be covered during the course.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction	7	-
Crystallography	14	7
Classification of Gem stones	3.5	3.5
Structural properties	9	5
The Light and Optical effects	9	5
Testing with Instruments (Principles)	15	20
Identification of Gemstones	20	15
Man Made gemstones	14	7
Gem Stones Enhancements	9	5
Fashioning of Gemstones	3.5	3.5

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during the course, final examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

- End of course theory examination 40%
- Practical examination (G sample/ S Sample identification)

Based on the scheme given below, the overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned.

Grade (Marks); A (80-100), B (60-79), C (50-59), D (40-49), F (<49)

## 5.1.3. Gemmology

#### 5.1.3.1. Registration details

Registration procedure will be carried out according to the 5.1.2.1. Persons who wish to have an extensive knowledge regarding gemmology are welcome to enroll for this course and there are no limitations; age, gender or educational qualifications for the applicants.

#### 5.1.3.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration.

After completion of the application procedure, all the payments should be deposited to BOC bank, Malabe account no. 001015948, mentioning the account holder as Gem and Jewellery Research and Training Institute.

A copy of the payment slip should be submitted to GJRTI coordination office on or before course commencement date to proceed with the enrollment.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to structure of the Earth, formation of Rocks	07	-
Crystallography	14	7
Classification of Gem stones	07	-
Physical properties	14	14
Light	07	07
Refractometer	05	09
Colour in Gemstones	07	07
Plane polarizing light and Normal light	06	15

10X lens & Microscope	05	16
Reflectivity meter & Thermal Conductivity meter	04	03
Description of Natural gem materials of Inorganic origin	23	05
Description of Rare gems	21	-
Identification of natural gem materials in inorganic origin	-	14
Identification of rare gem materials		14
Description of natural gem materials of organic origin	16	05
Identification of natural gem materials of Organic origin	-	07
Methods of manufacturing and identification of artificial gem materials (Synthetic gemstones, man-made gem materials)	14	14
Colour Enhancement of Gemstones and identification of stones subjected to colour enhancement	07	14
Fashioning of Gemstones	07	14
Special Optical properties in gemstones	07	07
Composites and Imitations (simulant) gem materials	04	03

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

End of course theory examination	40%
Practical examination (G = sample / S = Sample identification)	60%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned accordingly.

## 5.1.4. Colour Grading and Marketing

## 5.1.4.1. Registration details

Registration procedure will be carried out according to the 5.1.2.1. Persons who are engaged in gem business are welcome to enroll for this course, since this is useful to enhance the practical knowledge regarding market share and market strategies related to gem industry.

#### 5.1.4.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration.

Payment procedure will be same as the 5.1.3.2. and total course fee has given below.

Description	Local candidate fee SL Rs.	
Registration fee	500	
Course fee	12,000	

## 5.1.4.3. Course Outline and Examination Regulations

This course volume consists of 56 learning hours, covering following topics.

Title	Lecture (hrs.)
Marketing	08
Gem buying	08
Geuda	04
Colour grading	20
Export procedures	08
Export promotion	08

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

•	End of course theory examination	80%
•	Practical examination	20%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.1.2.3. criteria.



#### 5.1.5. Geuda Heat Treatment

## 5.1.5.1. Registration details

Registration procedure will be carried out according to the 5.1.2.1. Persons who are engaged in gem business are welcome to enroll for this course. GJRTI being the only training provider for geuda heat treatment in Sri Lanka. As such there is a great demand for this course from both local and overseas students. we train them to add value for inferior quality stones like gueda, ottu etc. and enhance the colour to obtain a good price.

#### 5.1.5.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.1.3.2. and total course fee has given below.

Description	Local candidate fee SL Rs.	
Registration fee	500	
Course fee	20,000	

## **5.1.5.3.** Course Outline and Examination Regulations

This course volume consists of 112 learning hours, covering following topics.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to course and different colour enhancement methods of gems	04	-
Introduction to furnace	-	02
Identification of geuda from other gem stones	-	02
Identification and classification of corundum and geuda	06	02
Identification of Ottu and Dun stones	02	-
Chemistry of Geuda Heat Treatment	02	-
Identification of cracks	02	-
Identification of natural and treated gems	02	-
Heat treatment Technology	04	04
Heat treatment of Ottu and Dun stones	-	04
Obtaining oxidizing/reducing conditions with furnace	04	-
Heat treatment of diesel geuda, milky geuda, silky geuda, young geuda, Deguna geuda, white sapphire, red sapphire and kowangu pushparaga	-	56
Heat treatment using condor furnace	-	30
Final examination	-	08

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

•	End of course theory examination	40%
•	Practical examination	60%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.1.2.3. criteria.

## 5.1.6. Lapidary Techniques

#### 5.1.6.1. Registration details

Registration procedure will be carried out according to the 5.1.3.1. Persons who wish to be a self-employee or entrepreneur are welcome to enroll for this course because this provide hand on experience in gem cutting and polishing techniques.

#### **5.1.6.2.** Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.1.3.2. and total course fee has given below.

Description Local candidate for Rs.	
Registration fee	500
Course fee	12,000

In addition to the regular courses, we conduct some courses, free of charge for school leavers (low income groups) under Gem Designing Technician Project funded by National Gem and Jewellery Authority and Gem and Jewellery Association. Students who are attending this course will receive a stipend to cover the bus fare in addition to the free course.

## 5.1.6.3. Course Outline and Examination Regulations

We conduct three types of Gem cutting and polishing courses with weightage of NVQ 3 and NVQ 4. NVQ 3 course volume consist of 115

theory hours and 445 practical hours and NVQ 4 course volume has extended learning hours up to 140 theory and 700 practical hours. Course outline for the gem cutting and polishing curriculum has given below.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to Gem industry	15	20
Describing the function, maintenance and hazardous situations related to Gem cutting and polishing machines Introduction to usage of diamond laps and	10	25
abrasive wheels		
Introduction to fashioning of oval and pear shapes	07	27.5
Introduction to physical properties of gems		
Introduction to fashioning of marquise, triangle and square shapes with the use of diagrams	07	27.5
Introduction to doppe sticks, wax types and dopping	07	27.5
Introduction to cabochon cutting, single and double cabochone	07	27.5
Explanation of optical effects in gem stones		
Introduction to faceting	07	27.5
Introduction to different cutting styles based on round shape i.e. round step, round flower, zircon cut, cross cut	07	27.5
Introduction to cutting styles based on oval and pear shapes.	07	27.5
Introduction to crystal habits, cleavage and fracture.	07	27.5
Introduction to marquise and square shapes	07	27.5
Introduction to different types of polishing laps, polishing powders and polishing methods.	07	27.5
Introduction to cutting styles i.e. heart, Trilliant, Princess, variations	07	27.5
Detection of polishing axis in gem stones	07	27.5

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

## End of course theory examination

20%

Students' performance during the course
 Practical examination
 60%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.1.2.3. criteria.



## 5.1.7. Gem Carving

#### 5.1.7.1. Registration details

Registration procedure will be carried out according to the conditions laid down in item 5.1.3.1. GJRTI is the only institute involved in the training of gem carving in Sri Lanka to safeguard the indigenous handcraft. Therefore, we are addressing a national requirement, promoting traditional handcraft. As such persons who are interested in age old delicate artistic work are earnestly requested to follow this course.

#### 5.1.7.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.1.3.2. and total course fee has given below.

Description	Local candidate fee SL		
	Rs.		
Registration fee	500		
Course fee	15,000		

## 5.1.7.3. Course Outline and Examination Regulations

This course volume consists of 105 theory hours 399 practical hours, covering following topics.

Title	Lecture	Practical
	(hrs.)	(hrs.)
Introduction	5	
Egg shape carving	2	28
Sphere shape carving	4	21

Crystal pendent carving	3	28
5 petal flower carving	7	28
3D fish carving	7	28
3D rabbit carving	7	28
3D turtle carving	7	28
3D frog carving	7	28
3D dog carving	7	21
3D elephant carving	7	21
3D pagoda carving	7	21
Watch carving	7	21
Chess pones and board carving	7	21
3D human head carving	7	28
	7	21
Quarts, amethyst drilling and necklace making	7	21

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

End of course practical examination	80%

Students	performance during the course	20%
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The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.1.2.3. criteria.

## 5.2. Jewellery related studies

## 5.1.2. Jewllery Design and Manufacturing Technology Diploma

## 5.1.2.1. Registration details

Applicant is expected to refer to advertisement in printed or electric media or GJRTI website for details regarding the commencement of Diploma program. Relevant application forms can be obtained from GJRTI head office/regional centers or it can be downloaded from GJRTI official website.

Applicants are advised to submit certified photocopies of original certificates and two letters of recommendation along with the completed application form. Dully completed application forms should be forwarded to GJRTI coordination office before the closing date.

Applications received will be shortlisted by qualified committee and application which are incomplete or carrying false information shall be rejected without any notification. Qualified candidates will be call upon for a structured interview before the program commencement.

According to NVQ regulations candidates should have following requirements (1 or 2) to complete the registration.

- 1.) National certificate of NVQ level 4
- 2.) NVQ Jewellery maker level 03 certificate and gap filling program
- Candidates who have Industrial experience or who have a certificate which is not an NVQ may seek to have their skills recognized through RPL.

#### 5.1.2.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

- Fees for the tuition and registration will not be refunded under any circumstances.
- Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of six months after the first date of registration.
- After completion of the application procedure, all the payments should be deposited to BOC bank, Malabe account no. 001015948 with mentioning the account holder as Gem and Jewellery Research and Training Institute.
- A copy of the payment slip should be submitted to GJRTI coordination office on or before course commencement date to proceed the enrollment.

	Description	Local Candidates Fee (Rs.)
5.1.1.2.1	Application fee	200
5.1.1.2.2	Registration fee (per program)	1,000
5.1.1.2.3	Jewellery Diploma Program fee	50,000
5.1.1.2.4.	Library deposit (per program) - references only	500
5.1.1.2.5.	Laboratory deposit (Refundable)	3,000
5.1.1.2.6	Repeat course fee (per credit)	1,000
5.1.1.2.7	Transcripts (per additional issue)	500

## 5.1.2.3. Credit Allocation and Grading System

According to NVQ 5 diploma standards, a prospective student should follow minimum 60 credits to obtain the diploma certificate with covering 1725 notional hours. The following core and elective subjects have offered by GJRTI for gemology diploma 2018/2019.

Students' evaluation, final examinations, assessments and grading will be carried out according to exam regulations in national competency standards published by TVEC.

Module code	Module	Туре	Notional hours	Lecturers/ tutorials (hrs)	Practical/ designs/si te visits (hrs)
Jwl_51201	Jewellery Design	С	300	50	200
Jwl_50302	Quality Assurance	С	50	20	20
Jwl_50203	Supply of raw materials and chemicals	С	50	20	20
Jwl_50204	Maintenance of machinery, equipment and tools	С	50	20	20
Jwl_50805	Non-metalic materials	С	50	25	10
Jwl_50206	Manage repair of machinery, equipment and tools	С	50	20	20
Jwl_50207	Workplace communication management	С	50	25	15
Jwl_50308	Planning and scheduling work at work place	С	50	25	15
Jwl_50409	Perform display and merchandising of jewellery	E	100	40	50
Jwl_50310	Market survey	E	100	70	15
Jwl_51211	Technical realization of design	С	225	50	135
Jwl_50212	Gemmology for jewellers	С	200	80	100
Jwl_50413	Production and safety	С	100	50	40
Jwl_50214	Costing and pricing of jewellery	С	50	20	20
Jwl_50315	Workplace information management	С	50	30	-
Jwl_50216	Manage raw materials and chemicals	С	75	35	30
Jwl_50317	Marketing and sales plan for a product	E	50	30	10
Jwl_50218	Development of entrepreneurship and small business	Е	50	30	10

## 5.1.3. Jewellery Designing

## 5.1.3.1. Registration details

Applicant is expected to refer to the advertisement in printed or electric media or GJRTI website for details regarding the commencement of this course. Relevant application forms can be obtained from GJRTI head office/regional centers or it can be downloaded from GJRTI official website and dully completed application forms should be forwarded to GJRTI coordination office before the closing date. In addition, candidates could register online via our website or email the dully filled application to training@gjrti.gov.lk. Persons who are interested in jewellery designing welcome to enroll for this course and there are no limitations for age, gender or educational qualifications for the applicants.

#### 5.1.3.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration.

After completion of the application procedure, all the payments should be deposited to BOC bank, Malabe account no. 001015948 with mentioning the account holder as Gem and Jewellery Research and Training Institute.

A copy of the payment slip should be submitted to GJRTI coordination office on or before course commencement date to proceed the enrollment.

Description	Local candidate fee SL Rs.	
Registration fee	500	
Course fee	10,000	

In addition to the regular courses, we conduct some courses free of charge for the students coming from low income groups as per the guidance of His Excellency Mithripala Sirisena with the purpose of alleviating poverty. Students who are studying under this project will be received a stipend to cover the bus fare.

#### 5.1.3.3. Course Outline and Examination Regulations

This course volume consist of 78 theory hours and 372 practical hours and following topics will be covered during the course.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to jewellery design	07	42
Guide to colouring metals	05	15
Identification of main materials and tools in jewellery manufacturing	07	-
Faceted stone layout, guide to colourng gem stones, shading cabochone stones	21	07
Gem identification	05	-
Perspective drawings	02	24
Stone setting and stone cases	04	10
Soldering lock and links	02	20
Introduction to colour theory	02	20
How to draw a gent's ring	02	18
Step by step guide to technical drawing	02	40
Elements and principles of designs	02	-
Design presentation	08	65
Design styles	08	65
Designs for special events	05	40
Free designs	05	55

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance show during course, end of course examinations and assignments. The weightage of

marks given below can generally be used as a guideline in the computation of the final grade.

-	End of course practical examination	75%
-	Students' performance during the course	25%

Based on the scheme given below, the overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned.

Grade (Marks); A (80-100), B (60-79), C (50-59), D (40-49), F (<49)



## 5.1.4. Jewellry Manufacturing

#### 5.1.4.1. Registration details

Registration procedure will be carried out according to the 5.2.2.1. Goldsmiths, traditional jewellery makers and persons who are interested in jewellery manufacturing welcome to enroll for this course in order to accrue the modern trends and technology related to jewellery manufacturing industry.

#### 5.1.4.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.2.2.2. and total course fee has given below.

Description	Local candidate fee (Rs.)
Registration fee	500
Course fee	10,000

In addition to the regular courses, we conduct some courses free of charge for the students who are coming from low income groups and students who are studying under this project will be received a stipend to cover the bus fare.

## **5.1.4.3.** Course Outline and Examination Regulations

This course volume consists of 301 theory hours and 1169 practical hours with equal weightage of NVQ 4 and following topics will be covered during the course.

Title	Lecture (hrs)	Practical (hrs)
Tools and equipment use in jewellery manufacturing	30	117
Stone case and pendent	30	117
Rings	30	117
Bangles and bracelets	30	117
Earrings	30	117
Locks and links	30	117
Jewellery with traditional designs	30	117
Jewellery with foreign designs	30	117
Bridal jewellery	30	117
Stone setting	30	117

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

End of course theory examination (Part I & II)	20%
In class project	20%
Practical examination	60%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.2.2.3. criteria.

Students who wish to obtain NVQ 4 certificate should undergo 6 months on the job training and follow examination regulations established by TVEC.

## 5.1.5. Computer Aided Jewellery Designing (CAD)

#### **5.1.5.1.** Registration details

Registration procedure will be carried out according to the 5.2.2.1. CAD is the easiest and most convenient way to design jewellery for mass market with minimum effort. Nowadays there is a very high demand for these designers. Therefore, Persons who need to enter into this profession welcome to enroll for this highly sought-after course.

#### Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.2.2.2. and total course fee has given below.

Description	Local candidate fee (Rs.)	
Registration fee	500	
Course fee	25,000	

## **5.1.5.2.** Course Outline and Examination Regulations

This course volume consists of 22 theory hours and 146 practical hours and the following topics will be covered during the course.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to computer operating system	06	17
Introduction to Jewel-CAD software	12	50
Introduction to Jewel-CAD data base, commands and exercises	-	22

Curve and sub commands	02	23
Introduction to main menus	02	24
Create designs and exercise	-	10

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

•	End of course theory examination	25%
•	Practical examination	75%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.2.2.3. criteria.



## 5.1.6. Costume Jewellery Manufacturing

## 5.1.6.1. Registration details

Registration procedure will be carried out according to the 5.2.2.1. GJRTI being the only institute conduct this course there is a great demand for this course. Anyone could learn this trade and only need less capital to start their own business. As such you are welcome to enroll for this course.

#### 5.1.6.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.2.2.2. and total course fee has given below.

Description	Local candidate fee (Rs.)	
Registration fee	500	
Course fee	15,000	



## 5.1.6.3. Course Outline and Examination Regulations

This course volume consists of 70 theory hours and 280 practical hours and the following topics will be covered during the course.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to tools and equipment used in costume jewellery and making simple necklace	14	49
Introduction to gluing techniques	7	28
Making complex necklace set according to costume jewellery classifications	10	60
Making jewellery sets according to the market demand	7.5	48
Making different kind of costume jewellery and other accessories	11	59
Standards and quality controlling methods using in costume jewellery industry	4	10
Mass scale costume jewellery industry	5	60
Finishing works, packing and labeling of the items produced and making simple packages	11.5	10

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

•	End of course theory examination	30%
•	In class project	10%
•	Practical examination	60%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.2.2.3. criteria.

## 5.1.7. Stone setting

## 5.1.7.1. Registration details

Registration procedure will be carried out according to the 5.2.2.1. This course module provides skill to set precious and semi-precious stones to jewellery items through different techniques. Therefore, persons who engaged in jewellery manufacturing industry and people who are interested in jewellery manufacturing are welcome to enroll for this course.

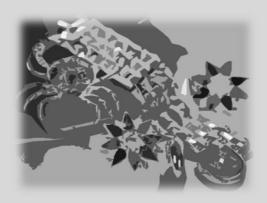
#### 5.1.7.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.2.2.2. and total course fee has given below.

Description	Local candidate fee (Rs.)	
Registration fee	500	
Course fee	10,000	



## 5.1.7.3. Course Outline and Examination Regulations

This course volume consists of 55 theory hours and 113 practical hours and the following topics will be covered during the course.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction	07	-
Basics of gemmology	07	-
Prong setting/claw setting	1.5	5.5
Bezel setting	03	11
Pave setting and bead setting	03	11
Channel setting	03	11
Setting stones finishing and polishing	03	18
Rubbed/flush setting	03	11
Setting stones, finishing and polishing	1.5	19.5
Wheel setting	03	11
Frame setting and tension setting	03	11
Introduction to precious metal and their properties	07	-
Basic theory related to gem cutting styles	07	-
Quality control and finishing	03	04

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

•	End of course practical examination	80%
•	In class project	20%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.2.2.3. criteria.

## 5.1.8. Casting and plating

## 5.1.8.1. Registration details

Registration procedure will be carried out according to the 5.2.2.1. Casting and plating technique used in jewellery manufacturing industry to manufacture jewellery for mass market. Therefore, persons who are intended to enter into mass jewellery market are welcome to enroll for this course.

#### 5.1.8.2. Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the GJRTI.)

Full course fee or 50% of the total program fee and other fees should be paid at the time of registration. The balance program fee should be paid within a period of one month after the date of registration

Payment procedure will be same as the 5.2.2.2. and total course fee has given below.

Description	Local candidate fee (Rs.)	
Registration fee	500	
Course fee	25,000	



## 5.1.8.3. Course Outline and Examination Regulations

This course volume consists of 45 theory hours and 130 practical hours and the following topics will be covered during the course.

Title	Lecture (hrs.)	Practical (hrs.)
Introduction to casting industry	09	-
Identification of casting equipment	14	06
Preparation of master pieces	08	20
Volcanizing and rubber cutting	02	16
Preparation of wax mold	-	12
Preparation of wax tree	-	11
Usage of investment powder	01	20
Introduction to metal	04	05
Metal casting	-	11
Product finishing	-	11
Electro plating	07	11

70% or above attendance is compulsory to be an eligible candidate for the final examination.

The evaluation of the course shall be based on performance shown during course, end of course examinations and assignments. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

•	End of course practical examination	80%
•	In class project	20%

The overall performance of a student in a given course shall be evaluated by the respective instructor(s) and a grade will be assigned according to the 5.2.2.3. criteria.

## 5.2. Admissions for International students

We welcome overseas students to follow our courses. We offer them a wide range of gem and jewellery related courses for a competitive fee structure. Our fees are the lowest in this region, yet our courses comply with international standards. In addition, our faculty consists of a set of highly qualified and experienced instructors and laboratories comprise state of the art modern machinery used throughout the world. On the other hand, Sri Lankans are very hospitable and Lankan hotels are very cheap compared to other countries of the world. In Sri Lanka healthcare provided by the state is free for any one including foreigners, this is something not seen in most other countries and it is a huge advantage to overseas students.

Tailor made courses and diplomas to suit the requirements of certain sectors in Gem and Jewellery studies are attractive to most overseas students. As such, there is a great demand for these courses.

We welcome students from around the world and are always ready to attend to their special needs such as the arrangement of lodging facilities, recommending food outlets, etc. Email us at info@gjrti.gov.lk or call us on +94112579184 for information and our immediate response would be forthcoming.

If you are visiting Sri Lanka, stopover at our head office, situated at P.O. Box 73/5A, Welivita, kaduwela, Sri Lanka, from 9am to 4.15pm on weekdays.

## 5.3. Workshops and Tailor-made courses

In addition to the regular training programs, we conduct short term workshops and tailor-made courses for local and international company employees, individual students and small groups. Course outline and course duration vary according to their requirements.

Contact us for more information by email: info@gjrti.gov.lk or call us on +94112579184.

## 6. Student support

The Career Guidance Unit of GJRTI was created with the following objectives.

- collaborate with the industry in a mutually beneficial way to find out the existing job opportunities and any vacant positions so that these could be filled with GJRTI students,
- to help the students to choose and proceed on a career path they desire, based on the students' inborn talent and performance shown during the course,
- to help the students to be familiar with the employment sector and develop transferable Skills such as effective communication and teamwork, so that they would become productive and highly talented professionals in gem/jewellery trade,
- arrange further training programs and workshops to upgrade the knowledge/skills of former students,
- collaborate with banks and financial institutions to facilitate the issue of bank loans to students, so that they could establish home base industries,
- help the students to obtain sufficient raw material for the manufacture of gem/jewellery and also help them to sell their products with a reasonable profit margin,
- Arrange short-term foreign visits to some students in collaboration with National Gem and Jewellery Authority (Recently a six-member

team of former students, who had undergone the jewelley manufacturing course visited Thailand to familiarize with modern trends in jewellery manufacturing).



## 7. Services provided by GJRTI

scientific gemstone surveys of private lands





Geuda heat treatment service

Casting and Electroplating service





Gemstone cutting

Analytical Services
(XRF, FTIR, UV-Visible, Raman,
Iso-Dynamic Magnetic Separator,
Particle Size Analyzer)





Most tourists visiting this country desire to learn something about gems. sometimes they prefer to gain some mining experience or gem cutting experience. In recent times the arrival of tourist for the sake of seeking gem knowledge is quite common. the private sector alone had realized the brighter side of gem tourism. Even then, organized gem tour operators are unavailable. As such few tour groups occasionally carried out gem site tours.

GJRTI is specialized in providing the tourist with wide experience related to Sri Lankan gem / jewellery subjects catering to the specific requirements of the tour groups.

- +0112413597
- 🚳 www.gjrti.gov.lk
- ★ training@gjrti.gov.lk
- P.O. Box. 75/5/A, "Ruwan Sewana", Walivita, Kaduwela, Sri Lanka

## 8. Student Products are available for sale



We have already formulated a new strategy to utilize the skills of our students. It is customary on our part to provide the training material for the students up to now, yet, we had overlooked

the exploitation of their finished products.

Usually, these products were dismantled or melted and sometimes reused; at times, these were taken by the students without our notice. This is rather a waste, in view of the material and the time spent for the manufacture of the products. We have noticed that some students learn their trades speedily and thereby produce master pieces, which could be easily marketed for a very high price. As such, we have decided to sell students' products for a reasonable fee.

We believe this will ultimately supplement our coffers while decreasing to some extent the dependency on the treasury. In order to fulfill this dream, we decided to sell students' products at our newly established students' products outlet at National Gem and Jewellery Authority's gem center at World Trade Center, Colombo, GJRTI premises at Kaduwela and Ratnapura Center. Your cooperation in this regard is highly appreciated and we guarantee that you are getting an authentic product made by our students for an affordable price.

# YEAH!

O/LEVEL COMPLETED

**WHAT NEXT?** 







ENTRY QUALIFICATIONS Age or Educational qualification is not a barrier to enroll for the below courses and

Majority of our Courses are conducted free of charge

## **COURSES**

There are ideal courses and provision of technical advice for the development and production of equipment on the Gem and Jewellery Industry including Mining, cutting, jewellery production and Heat-Treatment systems

## **GEM COURSES**

- Gemmology Courses
  - Gemmology
  - Basic Gemmology
- Geuda Heat treatment
- Gem Cutting & Polishing
- Colour Grading & Marketing
- Gem Carving & Bead Jewellery Making

## **JEWELLERY COURSES**

- Jewellery Designing (Manual)
- Computer Aided Jewellery Designing
- Jewellery Manufacturing
- Costume Jewellery Manufacturing
- Stone Setting
- Casting & Eclectro Plating



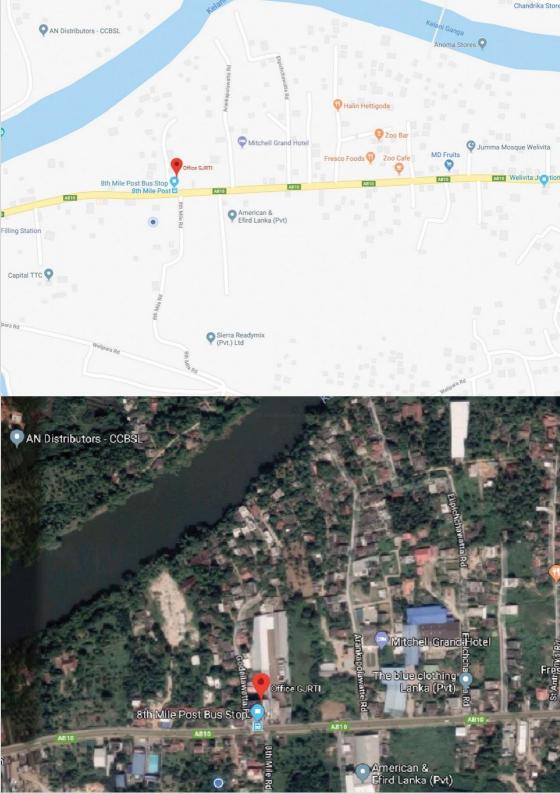














- Benjamin Franklin -



For Registration and other related inquires , Contact Us :

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