

**SUMMER 2017** 

# EDUCATION Quarterly

The Unexpected Origins of **BIG DIAMONDS** 

GROUNDBREAKING RESEARCH BY GIA

GIA QAB<sup>™</sup> MAKING JEWELRY THAT LASTS

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Cover: A view of birefringence patterns in a CLIPPIR diamond using special polarizing filters. This diamond is otherwise completely transparent and colorless. Courtesy: Evan Smith

#### GIA

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The Unexpected Origins of Big Diamonds

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GIA is accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC). ACCSC's accreditation is institutional in nature and includes GIA's U.S. on-campus education only. GIA's Distance Education eLearning courses are accredited by the Accrediting Commission of the Distance Education Accrediting Commission (DEAC). GIA's lab classes do not fall within the purview of DEAC accreditation



GIA's Carlsbad campus is approved to operate in California by the Bureau for Private Postsecondary Education.

GIA's New York branch campus is licensed by the State of New York Bureau of Proprietary School Supervision.

For information about graduation rates, graduated students' median debt, gainful employment and other information, visit

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# **Study** in the U.S. with GIA

GIA On Campus – The Launch Pad for Your Ambitions

Step onto a GIA campus, and you'll immediately feel the buzz of excitement that comes from students studying what they love.

Your time at GIA will be a transformative experience. Your instructors will fire your ambitions and imagination. Your classmates will be future friends and business associates. And since you'll live and breathe the subject matter, you'll graduate with the skills needed to chart your own course.

GIA World Headquarters in Carlsbad is the heart of the Institute – an 18-acre campus that is as breathtakingly beautiful as the subject matter taught A vibrant community of students, instructors and researchers, GIA in Carlsbad is a special place where vital skills are developed for industry success. It is also home to the Richard T. Liddicoat Gemological Library, which houses a growing collection of more than 57,000 books and the Cartier Rare Book Repository and Archives.

GIA in New York is in the middle of the Diamond District, where 90% of the diamonds entering the U.S. make their first stop. The campus is located in the



William Goldberg Student Commons at GIA in New York



Rosy Blue Student Commons at GIA in Carlsbad

and Taipei.



prestigious International Gem Tower in Manhattan, and occupies almost 100,000 square feet, with an entire floor dedicated to education. Stocked with the industry-essential technology and individual workstations, classrooms are designed to help you get the most from your studies. Beyond its doors, a world of opportunity waits for you.

Want to study abroad? GIA has campuses in Bangkok, Dubai, Gaborone, Hong Kong, London, Mumbai, Seoul

#### Additional Benefits and Services

GIA Museum features rotating exhibitions of breathtaking jewelry and ine gem specimens.

# Career Support Beyond the Diploma

#### **Career Services**

#### GIA's Career Services team is ready with invaluable career preparation advice and guidance to help turn your skills into career opportunities.

- Resume and job application assistance
- Interview preparation and practice



GIA Job Seeker Handbook: Your guide to applying for jobs

Interview tips



#### **GIA Career Fairs**

GIA ener

The Gem and Jewelry Industry's Largest Recruiting Event





**Recruiters from Across the Industry:** 2016 events drew 40+ companies in New York and 30+ in Carlsbad, including: Tiffany & Co., Saks Fifth Avenue, Gemvara and David Yurman.

Mid-Career & Entry-Level Opportunities

One-on-One Career Coaching

**Discussion Panels with VIPs** 

Networking



### **GIA Gem & Jewelry Career Center**

#### The Free and Easy-to-Use Online Destination for Talented Job Seekers and Top Companies

#### **Job Seekers**

- Have exclusive access to gem and jewelry industry jobs
- Research companies that interest you
- Create your personal profile, post your resume and apply for open positions

#### **Employers**

- Post open positions
- Search for gualified job seekers
- Create a company profile to attract top talent



#### Member Benefits That Keep You Connected to GIA and the Industry

- NEW! GIA Alumni Member Logo A powerful way to promote your GIA education affiliation, and is available to qualified alumni for use on business cards, websites and stationery. Email alumni@gia.edu for usage information.
- GIA Alumni Online Directory sign up so prospective clients can view your credentials and find you.
- GIA Alumni Membership Card, Window Decal and Business Card Holder - promote your GIA education.
- **GIA Insider** and **AlumConnect** free digital publications help you stay connected.



**GIA Alumni Association** 

### **GIA ALUMNI** MEMBER



Members participate in activities, education and networking opportunities at chapter events and trade shows worldwide.







# GRADUATE **GEMOLOGIST**

## GIA Graduate Gemologists often choose these careers:

#### Appraiser Auction House Jewelry Specialist

- Auction House Jeweiry Specialist
- Colored Stone Buyer
- Diamond Buyer
- Diamond Sorter/Grader Estate Jewelry Dealer
- Gemologist
- Inventory Control Specialist
- Jewelry Business Owner
- Jewelry Buyer
- Lab and Research Professional
- Merchandiser
- Pawnbroker
- Retailer
- Sales Associate
- Wholesaler



California rubellite tourmaline crystal and cut stone Courtesy: William F. Larson

#### The Most Coveted Credential in the Gem and Jewelry Industry

The GIA Graduate Gemologist diploma program delivers a comprehensive gemological education on diamonds and colored stones. Using industry-essential gemological equipment, you will work with real diamonds and gemstones under the trained eyes of GIA instructors. Through extensive lab work, you will practice identifying and grading diamonds and colored stones in an efficient, accurate and consistent manner.

The Graduate Gemologist diploma program will cover:

- Developing in-depth, hands-on experience with the GIA International Diamond Grading System™ and the 4Cs (color, clarity, cut and carat weight), and learning how they affect diamond value
- Evaluating a diamond's proportions and grading diamonds in the D-to-Z color range consistently and accurately
- Using gemological equipment and procedures to grade and identify hundreds of gemstones
- Explaining to stakeholders the GIA Colored Stone Grading System for evaluating gemstone quality
- Identifying and grading common and unusual colored stones
- Identifying characteristics, simulants and treatments, and knowing when advanced testing is required
- Translating technical knowledge into valuable information for effective sales and excellent service

What You Earn: Graduate Gemologist Diploma, Graduate Diamonds Diploma, Graduate Colored Stones Diploma

#### DIPLOMA REQUIREMENTS

#### የ On Campus

Full-time program offered at GIA campuses worldwide *See pages 19, 21-22 for class schedule.* 

#### Distance Education

A combination of eLearning courses offered through GIA in Carlsbad and instructor-led lab classes offered at GIA campuses and other locations worldwide (see *GIA Education Catalog* or <u>GIA.edu</u> for details).

Colored Stones

Gem Identification

#### Five eLearning courses

- Diamond Essentials
- Diamonds & Diamond Grading
- Colored Stone Essentials
- Three lab classes
- Diamond Grading lab 5 days (or 10 nights when applicable)
- Colored Stone Grading lab 3 days (or 6 nights when applicable)
- Gem Identification lab 5 days (or 10 nights when applicable)

#### See pages 20, 22-23 for lab class schedules.

For eLearning and lab class descriptions, visit <u>GIA.edu/gem-education/distance</u>

# Dr. Çiğdem Lüle – Unlocking History

Dr. Çiğdem Lüle has crafted a remarkably diverse career: some days find the award-winning researcher in front of a classroom or a packed lecture hall, while other days she's working on an archaeological excavation site halfway around the world. Dr. Lüle, the director of development for Gemworld International, is also one of the founders of archaeogemology – a field of research using gem identification and origin to unlock clues about humanity's ancient past.

#### A student gets the 'gem bug'

I was born and raised in Turkey, and was studying geoengineering and working as an apprentice at a silversmith workshop. But I couldn't identify many of the gems after they were fashioned, and learned that gemology is the discipline that enables us to identify them. I earned my Diploma in Gemmology from the Gemmological Association of Great Britain. Later, I earned my Graduate Gemologist diploma through GIA's Distance Education program, and in 2004, started working as a gemology instructor at the GIA campus in London.

#### What is archaeogemology?

It combines gemology and mineral identification technology to assist in interpreting archaeological artifacts, mainly ancient gems. It provides something that gemology, archaeology or mineralogy can't do alone.

#### Gems in ancient history

Garnets are my favorite gem, and there is a deep archaeological connection. They've been used throughout history. Despite the belief that garnets were sourced from India, certain archaeological and mineralogical findings suggest a much more complicated set of locations – shedding light into cross-cultural relations of ancient civilizations.

#### Çiğdem Lüle, PhD., GIA GG, FGA

Director of Development Gemworld International

Fun Facts: Favorite book: *Name of the Rose*, Umberto Eco Favorite movie: Anything by Quentin Tarantino Favorite TV show: *Star Trek* Favorite band: The Doors

#### Teaching the trade

As director of development for Gemworld International, I develop hands-on, practical workshops and teach pricing strategies based on market dynamics. I believe in verified scientific information, so my research is in-depth, and my classes are always updated with new information and research.

#### GIA education: preparation for a dynamic market

GIA trains you for gemology and the market. Its emphasis is on professionalism, customer service and integrity. A GIA diploma is a great start and gives you good qualifications.

#### Final thoughts

You can't be successful in this business without a passion for gems. It's beyond identification or selling. I don't know a single successful gemologist who wouldn't get excited when they examine an unusual or newly identified gem.



# GRADUATE **DIAMONDS**

#### GIA Graduate Diamonds graduates often choose these careers:

Auction House Jewelry Specialist **Diamond Buyer** Diamond Sorter/Grader Jewelry Business Owner Retailer Wholesaler





Natural rough and polished diamonds

#### The Science Behind the Sparkle

The GIA Graduate Diamonds diploma covers the technical expertise needed to grade, buy and sell diamonds with the insight of a seasoned professional. This diploma program explores the GIA diamond grading procedures to assess the 4Cs – color, clarity, cut and carat weight - and how they affect diamond value. Students use professional diamond grading equipment for the purposes of examining a diamond's quality characteristics for grading and identification. Other topics include the role cut plays in the marketplace and important sectors of the diamond industry, including dealers, cutters and manufacturers.

The Graduate Diamonds diploma covers:

- Developing in-depth, hands-on experience with the GIA International Diamond Grading System<sup>™</sup> and the 4Cs (color, clarity, cut, and carat weight), and learning how they affect diamond value
- Grading diamonds in the D-to-Z color range
- Creating plotting diagrams
- Detecting diamond synthetics, treatments and simulants
- Understanding the effects of fluorescence on diamond body color
- Recognizing when advanced testing is required
- Speaking the language of diamonds confidently to customers, suppliers and vendors

What You Earn: Graduate Diamonds Diploma

#### **DIPLOMA REQUIREMENTS**

• On Campus

Full-time program offered at GIA campuses worldwide See pages 19, 21-22 for class schedule.

#### Distance Education

A combination of eLearning courses offered through GIA in Carlsbad and instructor-led lab classes offered at GIA campuses and other locations worldwide (see GIA Education Catalog or GIA.edu for details).

Two eLearning courses

• Diamond Essentials

• Diamonds & Diamond Grading

#### One lab class

• Diamond Grading lab – 5 days (or 10 nights when applicable)

See pages 20, 22-23 for lab class schedules.

For eLearning and lab class descriptions, visit GIA.edu/gem-education/distance



#### GIA Graduate Colored Stones graduates often choose these careers:

Appraiser Auction House Jewelry Specialist Colored Stone Buyer Estate Jewelry Dealer Jewelry Business Owner Jewelry Buyer Pawnbroker Retailer Wholesaler

DIPLOMA







Rhodolite, pyrope-almandine, garnet Courtesy: Dr. Eduard J. Gübelin Collection Natural yellow sapphire. Courtesy: B&B Fine Gems. Rhodochrosite. Courtesy: Bryan K. Lees, The Collector's Edge.

## Countless Colors, Limitless Possibilities

The GIA Graduate Colored Stones diploma explores the identification of common and unusual gemstones found in the marketplace. Subjects covered include the GIA Colored Stone Grading System and the correct usage of standard gemological equipment to distinguish natural, treated and synthetic gemstones. The program also examines which gems are commercially important, shifting supply patterns, and how these factors affect gem prices and availability. This program also includes the study of more than 60 species of gemstones, and how illumination techniques can facilitate the identification process.

The Graduate Colored Stones diploma covers:

- stone market
- gemstone quality

What You Earn: Graduate Colored Stones Diploma

#### DIPLOMA REQUIREMENTS

## 💡 On Campus

See pages 19, 22-23 for class schedule.

#### Distance Education

A combination of eLearning courses offered through GIA in Carlsbad and instructor-led lab classes offered at GIA campuses and other locations worldwide (see GIA Education Catalog or GIA.edu for details). Five eLearning courses

 Colored Stone Essentials Gem Identification

#### Two lab classes

See pages 20, 22-23 for lab class schedules.

• Building a knowledge base about colored stones and the colored

• Using gemological equipment effectively to identify gemstones

- Explaining the GIA Colored Stone Grading System and evaluating
- Recognizing how quality, rarity and color affect value
- Determining how market factors affect gem value

Full-time program offered at GIA campuses worldwide

Colored Stones

• Colored Stone Grading lab – 3 days (or 6 nights when applicable) • Gem Identification lab – 5 days (or 10 nights when applicable)

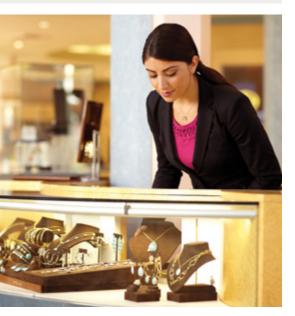
For eLearning and lab class descriptions, visit GIA.edu/gem-education/distance



# APPLIED **EWELRY PROFESSIONAL**<sup>™</sup>

GIA Applied Jewelry Professional program provides ongoing education for professionals in careers like these:

Jewelry Assistant Manager Jewelry Sales Professional Pawnbroker **Television Shopping Host** 



#### The Front Line of the Jewelry Industry

The AJP<sup>M</sup> program teaches topics critical to success on the job, including: diamonds, rubies, emeralds, sapphires and the 4Cs (clarity, color, cut and carat weight). Other topics include jewelry design, setting styles, jewelry care, the qualities of precious metals, common jewelry manufacturing methods and advice on running a retail jewelry store.

The Applied Jewelry Professional diploma covers:

- Describing how the 4Cs affect diamond value
- Examining the relationship between the size and weight of diamonds
- Exploring the differences between treated, synthetic and imitation stones in order to sell with full disclosure
- Understanding the steps of the jewelry sales process
- Translating jewelry design, style and manufacturing features into benefits
- Conveying the romance, lore and characteristics of the most popular colored gemstones

What You Earn: Applied Jewelry Professional<sup>™</sup> Diploma

#### DIPLOMA REQUIREMENTS

#### Distance Education

Three eLearning courses offered through GIA in Carlsbad.

- Jewelry Essentials
- Colored Stone Essentials
- Diamond Essentials







#### TIPS FOR COMPLETING A SUCCESSFUL APPLICATION



Know a boss, co-worker or client who thinks the world of you? Ask him/her to tell us about the qualities that make you so special – and why you deserve a GIA scholarship.

A teacher, a member of the clergy, someone from a community organization you belong to can also write a recommendation for you. Sorry - no friends or family.

Writing a letter of recommendation takes time and forethought. Be sure to give the writer sufficient time. Ask sooner rather than later.





10 GIA Education

Summer 2017

Pink diamond pendant Courtesy: © 2016 Rio Tinto



## Kickstart Your Education With a **GIA Scholarship**

GIA CAMPUSES: CARLSBAD, NEW YORK, BANGKOK, BOTSWANA, HONG KONG, LONDON, MIDDLE EAST (DUBAI), MUMBAI AND TAIPEI\*





2018 Enrollments Apply August 1 through September 30, 2017

June - December 2018 Enrollments Apply February 1 through March 31, 2018



#### Before you start the application, organize and prepare your thoughts on topics such as these:

- We want to know why gemology or jewelry manufacturing arts fires your spirit.
- Tell us how a GIA scholarship will help you reach your professional goals.
- Share with us your past achievements and how you can contribute to the gem and jewelry industry.

"I urge any prospective student who contemplates applying for a scholarship to do so. It was a minimal amount of time and work compared to the opportunities, both financially and professionally, I have received."

Natalie Tjaden, GIA GG Merchandising Assistant Jewelry Television (JTV)

# The Unexpected Origins of **BIG DIAMONDS**

### GROUNDBREAKING RESEARCH BY GIA

Diamonds have captivated us for centuries, and some of the greatest diamonds of the world – the Cullinan, Koh-i-Noor, the Constellation and Lesotho Promise – have an almost mythic status. These exceptional diamonds have unusual characteristics that set them apart from other more common diamonds, but exactly how they are created in the earth has remained a mystery...



The 603 carat Lesotho Promise is the fifteenth largest rough diamond ever discovered. *Courtesy: Laurence Graff* 

...until GIA Postdoctoral Fellowship Researcher Evan Smith discovered that these big diamonds form hundreds of miles beneath the surface of the Earth in a unique way.

The vast majority of diamonds are created between 90 and 140 miles beneath the Earth's surface, in the thickest and oldest parts of continents. At these depths, the temperature is around 2000° to 2300°F and the weight of all the overlying rocks exerts a pressure of 50 to 70 kilobars – about 60,000 times greater than the pressure at sea level.

These diamonds form in a chemical-rich environment including carbon, hydrogen and oxygen. As diamonds grow, layer upon layer, some of the surrounding matter can sometimes be trapped inside (called "inclusions"). For some diamonds, this process may have started more than a billion years ago. Typical diamond inclusions from this depth are sulphides, chromite, graphite, pale green olivine crystals and purplish-red garnets. Sometimes a volcanic eruption tearing its way up through the middle of a continent can carry diamonds up to the surface.

To gemologists and professionals in the diamond trade, the fewer inclusions in a diamond the better. To geologists, inclusions can be invaluable: They are a snapshot of the environment in which the gem formed. Inclusions are also a unique fingerprint of a diamond – no two have the same number, type and size. Diamonds play an unusual role in all of this: they can be likened to extremely durable time capsules, protecting the cargo of inclusions on its tumultuous journey from the depths of the Earth.



Evan Smith holds a Ph.D. in geology from the University of British Columbia and a bachelor of applied science and master of engineering from Queen's University in Kingston, Ontario. He joined GIA in 2015, and specializes in systematically characterizing the inclusions in rare types of diamonds.

GIA researchers have been studying inclusions for decades. Evan Smith is now furthering this research.

Specializing in diamond geology, Smith worked for the Ekati diamond mine in northern Canada. Then GIA's postdoctoral research program sparked his interest, for it offered the opportunity to work with other diamond researchers and to examine an unmatched variety of diamonds – a difficult proposition given the cost and exceptional rarity of these unique diamonds (dubbed CLIPPIR\* diamonds by Smith and his research team).

"I suspected that there was a very interesting story behind these diamonds, and I knew GIA was the only place in the world where I would have any hope of conducting research like this. Without the support and infrastructure of GIA, I would not have been able to make such a discovery," Smith shared.

The gemstone grading operations at GIA provided Smith the perfect setting to look systematically for high-quality, large diamonds. GIA also obtained some "offcut" diamond samples (leftover pieces after cutting is complete) that could be studied in greater detail. Getting these offcuts was no easy feat; they are rarely sold or loaned for research. Smith then spent the next year investigating the offcuts and inclusions using a number of tools: electron beams, lasers and magnets. As part of this work, Smith purposefully broke some of the diamonds to examine the inclusions.

"The most satisfying moment came after a few months of working on some unusual inclusions. At that point, I only knew that they were shiny and metallic looking, but could not identify the mineral. Out of curiosity, I suspended a magnet from a thread to see if there was any attraction between the magnet and the inclusions in the diamond. The instant I saw the strong attraction I felt a rush of excitement, because there are only a handful of minerals that could be so magnetic," Smith enthusiastically recounted.



An assortment of CLIPPIR diamond offcuts used in Smith's study. The largest is 9.6 carats. These diamonds could be analyzed by destructive means (polishing to expose inclusions) whereas many other diamonds studied were polished gemstones that were only borrowed and studied non-destructively.

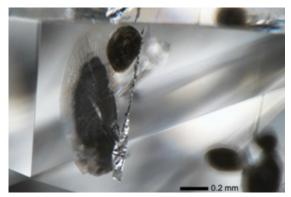
## Clarity Characteristics – A Brief Explanation



Clarity is one of the 4Cs of diamond quality, the others being carat weight, color and cut. Clarity characteristics are a collective term for inclusions and blemishes in gems.

A cut and polished CLIPPIR diamond with metallic inclusions. The most obvious group of inclusions looks like black spots on the left side and middle.

- Blemishes clarity characteristics confined to the surface of a polished gemstone
- Inclusions clarity characteristics totally enclosed in a polished gemstone or extending into it from the surface



A close-up view of a metallic inclusion in a CLIPPIR diamond. The inclusion is reflective/silver in appearance, surrounded by a black, graphite-bearing decompression crack.

Blemishes and inclusions reduce the value of a diamond. All things being equal, diamonds free of them are far more valuable.

\*The acronym "CLIPPIR" describes the key characteristics that set these special diamonds apart from more common varieties of diamond Cullinan-Like, Large Inclusion-Poor, Pure, Irregular-shaped, Resorbed (partially dissolved). Examples of rough CLIPPIR diamonds from the Letseng mine in Lesotho (southern Africa). *Courtesy: Gem Diamonds Ltd.* 





Twenty-six D-Flawless diamonds of various shapes cut from the Lesotho Promise were assembled by Laurence Graff into a necklace valued at \$60 million. *Courtesy: Laurence Graff* 

The magnetic inclusions turned out to be an ironrich metal mixture. This helped Smith confirm that the inclusions in CLIPPIR diamonds were distinctly different from those found in typical diamonds. Some additional inclusions were found to be special silicate minerals that formed at extreme depths between 220 and 460 miles below the surface. This meant that CLIPPIR diamonds originated far below the Earth's tectonic plates, about three or four times deeper than most common diamonds.

> Learn more about the formation of CLIPPIR diamonds in the deep mantle, including a link to the article in *Science* magazine at <u>GIA.edu/clippir-diamonds</u>

Rare examples of diamonds from these depths had been described before, but they were always small, heavily included and not normally used as gemstones. The discovery that some of the largest and highestquality diamonds originated from these extreme depths was astounding. In fact, it was so significant that the research was published in the December 16, 2016 issue of *Science* magazine.

New scientific findings often raise new questions and, in this case, it is not clearly understood how these deep diamonds make their way to the Earth's surface.

So what are the conclusions that we can draw from Smith's groundbreaking research?

- For geologists, the metallic inclusions in CLIPPIR diamonds was physical evidence that confirmed the existence of metal alloys (including elemental, native iron and nickel, with sulfur and carbon) in the deep mantle. One of the many implications was that metal affects the balance of carbon between the surface and interior of the Earth. Having carbon at the surface of the Earth is essential for life.
- For the gem industry, the diamond consumer and you, the discovery about the origin of CLIPPIR diamonds illustrates the complex and varied nature of natural diamond formation. This adds to the mystery and mystique of the diamond, which are the foundation of the industry and part of its allure.



Where Diamonds Form

#### EARTH'S SURFACE



LITHOSPHERE Cooler, rigid outer layer)

Typical Diamonds Form 90 to 140 Miles.



ASTHENOSPHERE (Hotter, ductile mantle layer)

CLIPPIR Diamonds Form 220 to 460 Miles.



--- 410 Miles----(Lower mantle lies below)

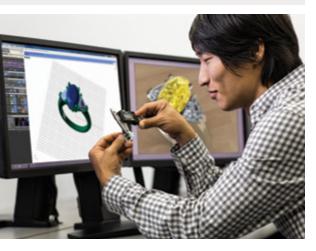
--1790 Miles----



# JEWELRY DESIGN & TECHNOLOGY

#### GIA Jewelry Design & Technology graduates often choose these careers:

CAD Jewelry Designer CAM Machine Operator Jewelry Business Owner Jewelry Buyer Product Developer Quality Assurance Specialist





See GIA Jewelry Design & Technology students showcase their portfolios at the final design exhibition GIA.edu/jdtvideo



Ring designed by Anfen Kuo Jewelry Design & Technology Graduate, 2015

#### Skills for Today and Tomorrow

The GIA Jewelry Design & Technology diploma covers topics essential to becoming a jewelry designer and technology professional, including being able to create a piece of jewelry using CAD software, understanding the engineering challenges that come with its manufacturing and knowing how to make it within budget. Instructors teach GIA's three-step process of inspiration, manipulation and communication to create attractive designs that are engineered for manufacturing. Other topics taught include important periods of jewelry history and their influence on contemporary design, jewelry manufacturing techniques, trade and safety practices, business fundamentals and jewelry engineering fundamentals.

The Jewelry Design & Technology diploma covers:

- Using fundamental design concepts, including texture, shape, form, balance, negative space, color and more
- Applying jewelry engineering concepts to conceive and design durable and comfortable pieces that are long lasting
- Creating, rendering and prototyping designs using CAD software like Rhinoceros 3D, Matrix, T Splines and V-Ray rendering; and using CAM hardware like DWS and Form II 3D printers
- Designing and developing CAD models using the metrics of scale, proportion and element relationships; and within the constraints of cost, time, size, style and manufacturing methods
- Selecting appropriate precious metals and gems based on engineering, design and manufacturing considerations
- Determining optimal manufacturing processes for the creation of jewelry like die striking, machine making and casting
- Inspecting designs and prototypes to ensure proper engineering and that they meet GIA CAD Engineering Fundamentals and GIA QAB<sup>™</sup> (Quality Assurance Benchmarks)
- Developing digital and physical portfolios of class projects and custom designs that are ready for presentation to potential clients and employers, and displaying work in a final design exhibition

What You Earn: Jewelry Design & Technology Diploma

#### DIPLOMA REQUIREMENTS

💡 On Campus

Full-time program offered in Carlsbad and New York See page 19 for program schedules.

# GRADUATE JEWELER

#### GIA Graduate Jewelers often choose these careers:

Bench Jeweler Business Owner Custom Order Jeweler Jewelry Buyer Jewelry Repair Technician Manufacturing Executive Quality Assurance Specialist Stone Setter





See GIA Graduate Jeweler students tackle the "Halo ring" project in 14K gold.

#### DIPLOMA REQUIREMENTS

#### • On Campus

Full-time program offered in Carlsbad See page 19 for program schedules.



Ronald Ringsrud Co.

15

The Graduate Jeweler diploma covers:

- and modern environment
- and platinum

- different metals
- silver and platinum
- Assurance Benchmarks)

#### Create Jewelry With a Confident Hand and a Keen Eye

The GIA Graduate Jeweler diploma program is a hands-on learning experience that prepares you for a career as a bench jeweler, and covers jewelry-making skills valuable for jewelry designers, CAD modelers and sales professionals. You will work with gemstones and precious metals, taking projects from castings to finished, set, and polished pieces. Progressively difficult projects develop metal skills like polishing, filing, texturing, sawing and general torch skills.

• Making and repairing jewelry using sustainable methods while in a quiet, clean

 Setting a variety of stone shapes, including round brilliants, ovals and princess-cut stones, in mounting styles to include channel setting, bezel setting and prong setting, in sterling silver, white gold, yellow gold

Determining when to alter, repair or reconstruct jewelry

 Performing the most common jewelry repairs, alterations, and reconstructions, such as sizing rings, rebuilding prongs, refinishing worn jewelry, repairing broken chains and strengthening old jewelry by installing new settings

• Applying both textured and polished finishes to jewelry surfaces on a variety of

Using fabrication and forging techniques and laser-welding technology for gold,

• Evaluating and improving workmanship by using GIA QAB<sup>™</sup> (Quality

What You Earn: Graduate Jeweler Diploma

## Niki Grandics – Ethical Design

The daughter of Hungarian immigrants, designer Niki Grandics' early life was rich in cultural and visual contrasts. The family's world travels laid a foundation for creative experimentation and a sense of social responsibility. A San Diego-based GIA Graduate Jeweler and GIA scholarship recipient, Niki was awarded the 11<sup>th</sup> Annual Halstead Grant in 2016 in recognition of an ethical business plan that's as forward-thinking as her designs.

#### Artistic inspiration

I see contrasts, visually and culturally, in the places I have lived and traveled. In my designs, I explore these contrasts through the gualities of the materials I work with, such as raw stones or slices combined with geometric and angular details in precious metal. I design like a scientist in that everything is an experiment.

#### GIA education and network

GIA's Graduate Jeweler program challenged me. I learned so much about stone setting and techniques like laser welding. I now have more knowledge, technical skills, and a great network of people. I met so many amazing people and made lasting connections through GIA.

#### Vision for the future

I want to build a lasting brand known for unique, clean designs and ethical practices. I'm proud to be a part of the move toward adopting more ethical, sustainable business models. I hope to influence designers and consumers to consider where materials and pieces come from, and think about how we can create positive change.



Pendant and bracele Courtesy: Niki Grandics

#### Niki Grandics. GIA GJ

Founder/Lead Designer ENJI Studio Jewelry

#### Fun Facts:

Hobbies: Cooking, taking her dog to the beach Favorite book: Dune, Frank Herbert Favorite TV show: Game of Thrones Favorite music: Die Antwoord

#### Pay it forward

I've received many opportunities and feel a responsibility to give back to the community. I work and volunteer with a nonprofit that supports young people affected by domestic violence, sexual assault and human trafficking, by introducing them to opportunities in higher education and the fields of science, technology, engineering, art and math.

#### GIA Quality Assurance Benchmarks

GIA QAB<sup>™</sup> are very easy to understand and make a lot of sense. They help me be proactive and fix problems before pieces go out the door, and make sure I am not sending out something that needs to be cleaned or reworked. You can evaluate how your jewelry should be manufactured, and clearly communicate with a customer or retailer. When we expand in the future and hire more jewelers, QAB can help ensure a consistent quality standard.

Learn more about GIA QAB on pages 24-25



#### The Driving Force in Jewelry Design and Manufacturing Technology

This comprehensive seven-week course covers the skills necessary to become a CAD/CAM (Computer-Aided Design/ Computer-Aided Manufacturing) technician. Skills taught include using CAD software (Rhinoceros 3D and Matrix) to develop models, and V-Ray software for photorealistic renderings. Topics covered include subtractive and additive CAM machines, rapid prototype models of selected designs and jewelry manufacturing techniques, GIA QAB<sup>™</sup> (Quality Assurance Benchmarks) and GIA CAD Engineering Fundamentals.

#### COURSE AT A GLANCE

The Comprehensive CAD/CAM course will cover:

 Creating CAD models within the metrics of proper engineering, scale, proportion and element relationships

manufacturing methods

- Developing CAD models within the constraints of cost, time, size, style and
- Distinguishing between various CAD software, including Rhino and Matrix; and various CAM methods, such as 3D printing
- Modeling and rendering manufacturable pieces of fine jewelry using CAD/CAM and displaying them in a final CAD exhibition

#### What You Earn: Comprehensive CAD/CAM for Jewelry Certificate Full-time program offered in Carlsbad, New York and London See pages 19, 21 for program schedules.

#### GIA Comprehensive CAD/CAM graduates often choose these careers: CAD Service Bureau Owner

Jewelry CAD Technician Product Developer





#### Illustrate Your Way to a Successful Future

In this intensive nine-week course, instructors teach creative and technical skills needed to begin a career as a custom iewelry designer. Jewelry design theory helps students acquire a working knowledge of jewelry artistry. Skills covered include illustrating the shape, form and texture of metal; working with drafting tools; and rendering yellow and white metals, as well as a range of faceted and cabochon gemstones and pearls. Instructors show how to illustrate rings in different views and how to keep design ideas flowing. At the completion of this course, you will have a hand-developed portfolio of your work and a digital copy to show prospective employers and clients.

Rendering jewelry designs

class design exhibition

as a participant in the final

• Creating a portfolio of class

projects and custom designs

that is ready for presentation to

potential clients and employers

using drafting tools for display

#### COURSE AT A GLANCE

The Jewelry Design course will cover:

- Learning rendering for yellow and white metals, as well as faceted and cabochon gemstones and pearls
- Illustrating rings and other pieces of jewelry
- · Learning about sources for jewelry design inspiration and developing motifs to create jewelry objects

What You Earn: Jewelry Design Certificate

Full-time program offered at GIA campuses worldwide See pages 19, 21-22 for program schedules.

#### GIA Jewelry Design graduates often choose these careers: Custom Designer Jewelry Designer Hand Renderer Sales Associate Jewelry Business Owner



## 2017 U.S. Class Schedules

#### ON-CAMPUS PROGRAMS

Please refer to <u>GIA.edu</u> for the most up-to-date schedules, tuition and fees.

Unless otherwise noted, all classes are held at GIA facilities at the address shown on the back cover of the most current version of the GIA Education Catalog at GIA.edu/education-catalog

The start date shown for on-campus courses and programs is the mandatory orientation date.

GIA reserves the right to reschedule or cancel classes.

#### CARLSBAD. CA

#### GEMOLOGY GEM 2500 Graduate Gemologist

Jan 12-Jul 28 Feb 9-Aug 25 Apr 6-Oct 20 Anr 27-Nov 10 May 25-Dec 15 July 27, 2017-Mar 2, 2018 Aug 31, 2017-Apr 6, 2018 Oct 12, 2017-May 18, 2018

#### **GEM 2200 Graduate Diamonds**

Jan 12-Mar 10\* Feb 9-Apr 7\* Apr 6-Jun 2\* Apr 27-Jun 23\* . Mav 25-Jul 21\* Jul 27-Sep 22 Aug 31-Oct 27\* Oct 12-Dec 15\*

#### GEM 2300 Graduate Colored Stones

Jan 3-May 19\* Mar 13-Jul 28\* Apr 10-Aug 25\* Jun 5-Oct 20\* Jun 26-Nov 10\* Jul 24-Dec 15\* Sep 25, 2017-Mar 2, 2018\* Oct 30, 2017-Apr 6, 2018\*

#### JEWELRY MANUFACTURING ARTS

JMA 3400 Jewelry Design & Technology Feb 23-Sep 1 Jul 13, 2017-Feb 9, 2018 Sep 28, 2017-Apr 27, 2018

#### JMA 3300 Graduate Jeweler

Apr 6-Oct 13 Sep 21, 2017-Apr 20, 2018

#### JMA 370 Jewelry Design

Feb 16-Apr 21 Jul 6-Sep 8

JMA 400 Comprehensive CAD/CAM for Jewelry May 4-Jun 23 Sep 28-Nov 17

#### NEW YORK. NY

#### GEMOLOGY

GEM 2500 Graduate Gemologist Jan 5-Jul 21 Mar 2-Sep 15 Apr 13-0ct 27 Apr 27-Nov 10 Jun 22, 2017-Jan 26, 2018 Aug 17, 2017-Mar 23, 2018

Oct 12, 2017-May 18, 2018 GEM 2200 Graduate Diamonds

Jan 5-Mar 3\* Jan 12-Mar 10 Mar 2-Apr 28\* Mar 23-May 19 Apr 13-Jun 9\* Apr 27-Jun 23\* Jun 1-Jul 28 Jun 22-Aug 18\* Aug 17-Oct 13\* Sep 21-Nov 17 Oct 12-Dec 15\*

#### GEM 2300 Graduate Colored Stones

Mar 6-Jul 21\* May 1-Sep 15\* Jan 2-May 19\* Jun 12-0ct 27\* Jun 26-Nov 10\* Aug 21, 2017-Jan 26, 2018\* Oct 16, 2017-Mar 23, 2018\*

#### JEWELRY MANUFACTURING ARTS

JMA 3400 Jewelry Design & Technology

Jun 1-Dec 15

#### JMA 370 Jewelry Design

Jan 5-Mar 10 Sep 28-Dec 8

#### JMA 400 Comprehensive CAD/CAM for Jewelry Mar 30-May 19 May 25-Jul 14

Aug 3-Sep 22

(N) = Nighttime; (S) = Saturday

Class Duration: Please note class schedules may vary depending on holidays and breaks; please review the schedule carefully and plan accordingly.

\* Dates offered on a standby basis. Call for availability. You will be placed on a waiting list until 30 days prior to the start of your program or class when GIA can confirm your space availability. Schedules are subject to change without notice. For a current schedule, visit GIA.edu/schedules, Contact GIA Admissions in Carlsbad or New York to confirm availability and for additional information and details.



#### CLASS DURATION AND HOURS

Monday-Friday Day Classes

#### Carlshad and New York:

Schedules may vary depending on holidays, breaks or other events. Please visit GIA.edu/class-duration-hours or contact admissions@gia.edu for details.



Red beryl crystal and cut Courtesy: Ray Zaijcek of Equatorian Imports

## 2017 U.S. Lab Class Schedules

#### LAB CLASSES AND STUDENT WORKROOMS

CARLSBAD, CA	NEW YORK, NY
CARLSBAD, CA GEMOLOGY GEM 220L Colored Stone Grading Jan 23-25 Mar 13-15 May 22-24 Aug 21-23 Nov 6-8 GEM 230L Diamond Grading Jan 9-13 Feb 27-Mar 3 Mar 20-24 May 8-12 Aug 7-11 Aug 28-Sep 1 Oct 23-27 Nov 13-17 GEM 240L Gem Identification Jan 16-20 Mar 6-10 May 15-19 Aug 14-18 Oct 30-Nov 3 GEM 149L Pearl Grading Jan 26 Mar 16 May 25 Aug 24 Nov 9 STUDENT WORKROOM Available daily, Monday-Friday, 9:00 a.m. – 12:00 p.m. and 1:00 – 4:00 p.m., on a first-come, first-served basis for up to eight students. Fees are \$35 for half day and \$70 for full day. No fees for exams. For a complete list of Student Workroom prerequisites, services, and additional details, visit GIA.edu. To reserve a seat, call +1 800 421 7250 ext 4404, or outside the U.S. call +1 760 603 4404 or email lessons@gia.edu JEWELRY MANUFACTURING ARTS JMA 320L Basic Repair and Setting Aug 14-18 JMA 340L Intermediate Repair and Setting. Aug 21-25	NEW YORK, NY   GEM0LOGY   GEM 220L Colored Stone Grading   Feb 6-8   Mar 13-15   Apr 3-5   Jun 12-14   Jun 12-20 (N)   Aug 21-23   Sep 23-0ct 7 (S)   Oct 2-10 (N)   Nov 13-15   GEM 230L Diamond Grading   Jan 23-27   Feb 6-10   Feb 27-Mar 3   Mar 20-24   Mar 20-24 (N)   Apg 14-15   Dec 4-70   Sep 11-15   Dec 4-8   GEM 240L Gem Identification   Jan 30-Feb 3   Feb 13-17   Mar 27-31   May 8-23 (N)   Jun 5-9   Jul 15-Aug 12 (S)   Aug 14-18   Oct 23-Nov 7 (N)   Nov 6-10   GEM 149L Pearl Grading   Mar 16   Apr 6   Jun 15   Aug 24   Nov 16

#### STUDENT WORKROOM Monday-Friday, 9:00 a.m. - 12:00 p.m. and 1:00 - 4:00 p.m. Fees are \$35 for half day and \$70 for full day. No fees for exams. For a complete list of Student Workroom prerequisites, services, and additional details, visit GIA.edu To reserve a seat. call +1 800 366 8519. or outside the U.S. call +1 212 944 5900, or email nyworkroom@gia.edu Jan 9-13 Jan 16-20 Feb 13-17 Feb 21-24 Apr 3-7 . Apr 10-14 Apr 17-21 May 30-Jun 2 Jul 31-Aug 4 Sep 25-29 Oct 2-6 Dec 4-8 Dec 11-15 LAS VEGAS. NV To register, and for class location call American Gem Society at +1 702 255 6500 ext 1034 or email hcorbett@ags.org. Fees and enrollment details vary. GEMOLOGY GEM 220L Colored Stone Grading Sen 6-8 GEM 230L Diamond Grading Sep 11-15

LAS VEGAS. NV

#### Seminar offerings during JCK shows to be announced.

GEMOLOGY GEM 275L Colored Gemstone Inclusions

Jun 5 GEM 275L Identifying Synthetic Diamonds

#### Jun 5

#### TUCSON, AZ

Fees and enrollment details vary. Tucson classes are held at the Tucson Convention Center, 260 South Church, Tucson, AZ 86701.

#### GEMOLOGY

GEM 275L Identifying Inclusions in Corundum and Emerald Feb 4

#### GEM 275L Identifying Synthetic and Imitation Colored Stones Feb 4

LAB CLASS HOURS

#### Day Classes

Carlsbad and New York: Schedules may vary depending on holidays, breaks or other events. Please visit GIA.edu/class-duration-hours or contact admissions@gia.edu for details.

#### Weekend and Night Classes

New York: Monday-Thursday: On-campus: 6:00 - 9:30 p.m. Saturday: 8:00 a.m. - 4:00 p.m.\*

# 2017 International Class Schedules

#### ON-CAMPUS PROGRAMS

Please refer to GIA.edu for the most up-to-date schedules, tuition and fees

Unless otherwise noted, all classes are held at GIA facilities at the address shown on the back cover of the most

current version of the GIA Education Catalog at GIA.edu/education-catalog The start date shown for on-campus

courses and programs is the mandatory orientation date

GIA reserves the right to reschedule or cancel classes.

#### BANGALORE GLAindia

GEMOLOGY **GEM 2200 Graduate Diamonds** May 25-Jul 21

#### BANGKOK GIAthai.ne

GEMOLOGY **GEM 2500 Graduate Gemologist** Jun 8-Dec 22

**GEM 2200 Graduate Diamonds** 

Feb 9-Apr 7 Jun 8-Aug 4\*

Oct 26-Dec 22

**GEM 2300 Graduate Colored Stones** Jan 12-Jun 9\* Aug 3-Dec 22

Applied Jewelry Professional<sup>™</sup> (Intensive) Jan 23-27 May 29-Jun 2 Sep 18-22

JEWELRY MANUFACTURING ARTS

JMA 370 Jewelry Design Feb 2-Apr 7

lun 29-Sen 1

#### CHENNAI GIAindia.i

GEMOLOGY **GEM 2200 Graduate Diamonds** Anr 6- lun 2

(N) = Nighttime: (S) = Saturday

Class Duration: Please note class schedules may vary depending on holidays and breaks; please review the schedule carefully and plan accordingly.

\* Dates offered on a standby basis. Call for availability. You will be placed on a waiting list until 30 days prior to the start of your program or class when GIA can confirm your space availability. Schedules are subject to change without notice. For a current schedule, visit GIA.edu/schedules. Contact GIA Admissions in Carlsbad or New York to confirm availability and for additional information and details.

for additional information and details

GEMOLOGY **GEM 2500 Graduate Gemologist** May 11-Dec 1

DELHI GIAindia.in

**GEM 2200 Graduate Diamonds** May 11-Jul 7

GEM2300 Graduate Colored Stone Jul 6-Dec 1

#### **DUBAI** G

Mar 30-May 25

Jul 20-Sep 14

Oct 19-Dec 14

(Intensive)

Apr 30-May 4

Jul 30-Aug 3

Sep 17-21

Nov 12-16

Jan 22-26

Mar 5-9

Classes will be held at Gold Tower, JLT Premises, unless otherwise mentioned

#### GEMOLOG)

#### **GEM 2200 Graduate Diamonds** lan 12-Mar 9

Applied Jewelry Professional<sup>™</sup>

#### HONG KONG GIAhonakona.com

#### GEMOLOGY

#### GEM 2500 Graduate Gemologist

Jan 5-Aug 25 July 6, 2017-Mar 9, 2018

#### GEM 2200 Graduate Diamonds

Jan 5-Mar 17\* Jul 6-Sep 1\* Oct 12-Dec 8 Jan 3-Mar 20 (Cantonese) (M. Tu, Th) (H) Feb 17-Jun 16 (Cantonese) (M, F) (H) Mar 7-May 18 (Cantonese) (M. Tu. Th) (H) Apr 18-Jun 29 (Cantonese) (M, Tu, Th) (H) Jul 6-Sep 4 (Cantonese) (M, Tu, Th) (H) Aug 29-Dec 12 (Cantonese) (M, F) (H) Oct 9-Dec 5 (Cantonese) (M. Tu. Th) (H)

#### GEM 2300 Graduate Colored Stones

Mar 23-Aug 25\* Oct 6, 2017-Mar 9, 2018\* Jan 3-Jul 3 (Cantonese) (M, Tu, Th) (H) Mar 14-Nov 28 (Cantonese) (Tu, Th) (H) Jul 4-Dec 14 (Cantonese) (M. Tu, Th) (H)

#### JEWELRY MANUFACTURING ARTS JMA 370 Jewelry Design

Mar 13-May 26 July 3-Sep 1 Oct 16-Dec 15

#### HYDERABAD

#### GEMOLOGY GEM 2200 Graduate Diamonds

Aug 3-Sep 29

#### LONDON London.GIA.edu

#### GEMOLOGY

#### **GEM 2500 Graduate Gemologist**

Jan 12-Jul 28 Feb 23-Sep 8 Aug 3, 2017-Mar 2, 2018 Sep 14, 2017-Apr 13, 2018

#### GEM 2200 Graduate Diamonds

Jan 12-Mar 10\* Feb 23-Apr 21\* May 4-Jun 30 Jun 15-Aug 11 Aug 3-Sep 29\* Sep 14-Nov 10\* Oct 12-Dec 8

#### **GEM 2300 Graduate Colored Stones**

Mar 9- Jul 28\* Apr 20-Sep 8\* Sep 28, 2017-Mar 2, 2018\* Nov 9, 2017-Apr 13, 2018\*

#### Applied Jewelry Professional<sup>™</sup> (Intensive)

Jul 17-21 Aug 7-11

#### JEWELRY MANUFACTURING ARTS

#### JMA 370 Jewelry Design

Mar 9-May 12 Aug 10-Oct 13

#### JMA 400 Comprehensive CAD/CAM for Jewelry

Jan 5-Feb 24 Jun 1-Jul 21 Oct 26-Dec 15

#### ATTENDING A GIA CAMPUS OUTSIDE THE UNITED STATES

To register in a program or lab class at a GIA location outside the U.S., contact the respective campus directly.

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Contact information for GIA campuses can be found at GIA.edu/locations

(N) = Nighttime; (S) = Saturday; (H) = Course includes both on-campus and self-paced study.

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## 2017 International Class Schedules

#### ON CAMPUS PROGRAMS (cont.)

#### MUMBAI GIAindia.in

#### GEMOLOGY

**GEM 2500 Graduate Gemologist** Feb 2-Aug 18 Mar 16-Sen 29 Jun 22, 2017-Jan 12, 2018 Aug 31, 2017-Mar 23, 2018

#### **GEM 2200 Graduate Diamonds**

Dec 8, 2016-Feb 3, 2017 Dec 22, 2016-Feb 17, 2017 Jan 5-Mar 3 Feb 2-Mar 31 Feb 23-Apr 21 Mar 16-May 12 Apr 6-Jun 2 Anr 27- Jun 23 Jun 22-Aug 18 Jul 6-Sep 1 Aug 31-Nov 3 Sep 21-Nov 24 Oct 26-Dec 22 Dec 7 2017-Feb 2 2018

#### GEM 2300 Graduate Colored Stones

Mar 30-Aug 18 May 11-Sep 29 Aug 17, 2017-Jan 12, 2018 Nov 2, 2017-Mar 23, 2018

#### JEWELRY MANUFACTURING ARTS

#### JMA 370 Jewelry Design

Dec 1, 2016-Feb 3, 2017 Feb 16-Apr 21 May 4-Jul 7 Oct 26-Dec 29

#### SHANGHAI GIAtaiwan.com.tw

GEMOLOGY GEM 2500 Graduate Gemologist

Feb 10-Aug 25 (Chinese) July 21, 2017-Feb 9, 2018 (Chinese)

#### **GEM 2200 Graduate Diamonds**

Feb 10-Apr 7 (Chinese)\* Mar 11-May 20 (Chinese)(S) (H) May 12-Jul 7 (Chinese) July 21-Sep 15 (Chinese)\* Nov 10, 2017-Jan 5, 2018 (Chinese)

#### **GEM 2300 Graduate Colored Stones**

Apr 7-Aug 25 (Chinese)\* Jun 10-Dec 30 (Chinese)(S) (H) Sep 15, 2017-Feb 09, 2018\* (Chinese)

#### JEWELRY MANUFACTURING ARTS JMA 370 Jewelry Design

Mar 6-May 5 (Chinese) Aug 28-Nov 3 (Chinese)

#### SURAT GIAindia.in GEMOLOGY GEM 2200 Graduate Diamonds Nov 24, 2016-Jan 20, 2017 Mar 23-May 19

#### Jul 20-Sep 15 Dec 7, 2017-Feb 2, 2018 TAIWAN GIAtaiwan.com.tw

#### GEMOLOGY

GEM 2500 Graduate Gemologist Nov 4, 2016-Jun 2, 2017 (Chinese) March 24-Oct 6 (Chinese) Jul 7, 2017-Jan 19, 2018 (Chinese) Nov 3, 2017-Jun 1, 2018 (Chinese)

#### **GEM 2200 Graduate Diamonds**

Mar 6-May 5 (Chinese) (N) (M, W, F) (H) Mar 24-May 19 (Chinese)\* May 27-Jul 29 (Chinese) (S) (H) Jul 7-Sep 1 (Chinese)\* Aug 14-Oct 6 (Chinese) (N) (M, W, F) (H) Nov 3-Dec 29 (Chinese)\* Oct 21-Dec 23 (Chinese) (S) (H)

#### GEM 2300 Graduate Colored Stones Dec 30, 2016-Jun 2, 2017 (Chinese)

May 19-Oct 6 (Chinese)\* Sep 1, 2017-Jan 19, 2018 (Chinese)\*

#### Advanced Jewelry Professional<sup>™</sup> (Intensive)

Mar 6-17 (Chinese) Aug 14-25 (Chinese)

#### JEWELRY MANUFACTURING ARTS JMA 370 Jewelry Design

Jun 5-Aug 4 (Chinese) Nov 13, 2017-Jan 12, 2018 (Chinese)

Mar 6-10 (Chinese)

#### **GEM 240L Gem Identification**

Mar 12-16 (Chinese)

BANGKOK GIAthai.net GEMOLOGY GEM 220L Colored Stone Grading Jan 30-Feb 1 lun 19-21 Oct 16-18 GEM 230L Diamond Grading Jan 16-20 Jun 5-9

LAB CLASSES AND STUDENT WORKROOMS

#### **GEM 240L Gem Identification** Jan 23-27

Jun 12-16 Oct 9-13

#### GEM 149L Pearl Grading Feb 2

Oct 2-6

Jun 22 Oct 19

JEWELRY MANUFACTURING ARTS JMA 330L Quick Design May 15-19

### GABORONE niaeducationafrica@nia er

GEMOLOGY GEM 230L Diamond Grading Jun 6-10 Jun 13-17

BEIJING GIAtaiwan.com.tw

#### GEMOLOGY

GEM 220L Colored Stone Grading Mar 18-20 (Chinese)

#### GEM 230L Diamond Grading

Sep 10-14 (Chinese)

GEMOLOGY GEM220L Colored Stone Grading Mar 26-28 Jul 16-18 Oct 8-10 GEM230L Diamond Grading Jan 8-12 Mar 12-16 Jul 2-6 Sep 24-28 Dec 17-21 **GEM240L Gem Identification** Mar 19-23 Jul 9-13 Oct 1-5 **GEM140L Pearl Grading** Mar 29 Jul 19 Oct 11

### HONG KONG GIAhongkong.com

#### GEMOLOGY GEM 220L Colored Stone Grading Aug 28-30

DUBAI GIAmideast.com

GEM 230L Diamond Grading Jan 3-26 (Cantonese) (N) (M, Tu, Th) Feb 11-Mar 18 (Cantonese) (S) Mar 6-10 May 13-Jun 10 (S) May 22-Jun 20 (Cantonese) (N) (M, Tu, Th) Sep 25-29 Nov 4-Dec 2 (Cantonese) (S) **GEM 240L Gem Identification** 

#### Sep 4-8

GEM 149L Pearl Grading Feb 22-24 (Cantonese) (N) (W, F) Feb 27 lun 26 Jul 5-7 (Cantonese) (N) (W, F) Sen 20 Oct 18-20 (Cantonese) (N) (W, F)

## JEWELRY MANUFACTURING ARTS

JMA 330L Quick Design Jun 1-29 (Cantonese) (N) (M, Tu, Th) Feb 11-Mar 18 (S) Oct 9-13

#### JOHANNESBURG

To register, call the Harry Oppenheimer Diamond Training School at +27 11 334 9003 or +27 11 334 8420, or email dtrainingschool.co.za Fees and enrollment details vary.

(N) = Nighttime; (S) = Saturday; (H) = Course includes both on-campus and self-paced study.

Class Duration: Please note class schedules may vary depending on holidays and breaks; please review the schedule carefully and plan accordingly.

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RAMAT GAN crisrael@gia.edu

email <u>csrisrael@gia.edu</u> or

call +972 3522 6749

SHANGHAI

May 16-18 (Chinese)

Nov 14-16 (Chinese

May 4-8 (Chinese)

Nov 2-6 (Chinese)

May 10-14 (Chinese)

Nov 8-12 (Chinese)

GEMOLOGY

Oct 21-23 (Chinese)

Apr 16-20 (Chinese)

Oct 9-13 (Chinese)

Oct 15-19 (Chinese)

SINGAPORE (

GEMOLOGY

Dec 6-8

Dec 18-22

Dec 11-15

Dec 5

GEMOLOGY

For a current schedule of lab classes

GEM 220L Colored Stone Grading

GEM 230L Diamond Grading

**GEM 240L Gem Identification** 

SHENZHEN GIAtaiwan.com.tw

**GEM 230L Diamond Grading** 

**GEM 240L Gem Identification** 

GEM 220L Colored Stone Grading

GEM 230L Diamond Grading

**GEM 240L Gem Identification** 

GEM 149L Pearl Grading

GEM 220L Colored Stone Grading

#### LAB CLASSES AND STUDENT WORKROOMS (cont.)

LONDON London.GIA.edu GEMOLOGY **GEM 220L Colored Stone Grading** 

#### Jan 3-5 Jul 3-5 Aug 14-16

GEM 230L Diamond Grading Jan 9-13 Apr 3-7

Jul 10-14 Jul 24-28 GEM 240L Gem Identification

Jan 16-20 Aug 21-25 Sep 25-29

## GEM 149L Pearl Grading

Aug 17 STUDENT WORKROOM Please call for availability.

9:30 a.m.-4:30 p.m. Jan 23-Feb 17 Aug 29-Sep 22

lan 6

Jul 6

#### MUMBAI GlAindia in

Jun 26-28

GEMOLOGY GEM 220L Colored Stone Grading Mar 20-22

#### Oct 9-11

GEM230L lan 2-6 Feb 27-Mar3 Mar 27-31 Apr 24-28 Jun 5-9 Jul 3-7 Aug 21-25 Sep 11-15 Oct 23-27 Dec 4-8

#### **GEM240L Gem Identification**

Mar 13-17 Jun 19-23 Oct 2-6

#### **GEM140L Pearl Grading**

Mar 23 Jun 29 Oct 12

STUDENT WORKROOM Please call for availability 10 a.m.-5 p.m.

Mar 6-17

(N) = Nighttime: (S) = Saturday: (H) = Course includes both on-campus and self-paced study.

Class Duration: Please note class schedules may vary depending on holidays and breaks; please review the schedule carefully and plan accordingly.

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Diamond Grading	
8	

#### TAIWAN GIAtaiwan.com.tw

#### GEMOLOGY

GEM 220L Colored Stone Grading

Feb 20-22 (Chinese) Oct 30-Nov 1 (Chinese)

#### GEM 230L Diamond Grading

Feb 6-10 (Chinese) Mar 6-31 (Chinese) (N) (M, W, F) May 27-Jun 24 (Chinese) (S) Jun 12-16 (Chinese) Aug 14-Sep 8 (Chinese) (N) (M.W.F) Oct 16-20 (Chinese) Oct 21-Nov 18 (Chinese) (S)

#### **GEM 240L Gem Identification**

Feb 13-17 (Chinese) lun 19-23 (Chinese) Oct 23-27 (Chinese)

#### GEM 149L Pearl Grading

Apr 22 (Chinese) (S) Oct 21 (Chinese) (S)

#### STUDENT WORKROOM Please call for availability.

Jan 16-20 Feb 20-24 Mar 20-24 Apr 17-21 May 22-26 Jun 26-30 Aug 7-11 Sep 4-8 Oct 9-13 Nov 6-10 Dec 11-15

#### ATTENDING A GIA CAMPUS OUTSIDE THE UNITED STATES

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Contact information for GIA campuses can be found at GIA.edu/locations

# GIA Quality Assurance Benchmarks

## Quality Criteria for Making Beautiful Jewelry That Stands the Test of Time

Fine jewelry is meant to last for generations, but design and manufacturing flaws can result in damage, gemstone loss or distortion during normal wear. When this happens, the cost is far greater than financial – it includes heartbreak, loss of trust, and damaged reputations of the store where it was purchased, the designer and manufacturer.

So why do some pieces fail and others last despite the bangs and bumps of time?

"A lack of common fine jewelry manufacturing criteria and poor design and engineering decisions are common causes in jewelry failure," said GIA's Mark Mann, senior director, Global Jewelry Manufacturing Arts. "GIA developed Quality Assurance Benchmarks with industry leaders to share best practices so manufacturers and bench jewelers can make durable and long-lasting pieces, and repair damaged ones to proven quality criteria."

GIA QAB<sup>™</sup> (Quality Assurance Benchmarks) are methods to achieve quality, well-engineered designs and successful repairs and alterations based on precious metal type. They are essential to anyone who works with or enjoys wearing jewelry: bench jewelers, retail sales professionals, shop managers/owners,

QAB cover critical manufacturing and servicing topics to help ensure beautiful well-crafted jewelry lasts a lifetime. Compare this ring to the quality criteria topics shown to the right, and found on <u>GIA.edu/QAB</u>



jewelry consumers, buyers, manufacturers, designers and consumers.

Using QAB give industry professionals an objective method for evaluating semi- and fully-finished jewelry, and creating new pieces. These benchmarks cover crucial topics from proper criteria for durable stone settings, to resizing, to finishing techniques that give precious metals their eye-catching luster. It also gives industry professionals and customers a common language that reduces confusion and promotes trust.

GIA QAB are woven into the curricula for both the Graduate Jeweler and Jewelry Design & Technology diploma programs. Students practice a variety of common design and alteration scenarios with various precious metal types, including karat gold, sterling silver and platinum.

#### Setting a Princess-Cut Stone in V-Prongs



A secure stone setting with well-fitting bearings and sufficient prong height and contact helps to ensure the stone is not lost or damaged during normal wear.

#### zing Up/Down Rings with Diamonds in the Shank



techniques and tools that create a strong and non-visible sizing joint without compromising the stone setting or causing damage to the finish and luster.

Learn about the

#### Finishing and Polishing



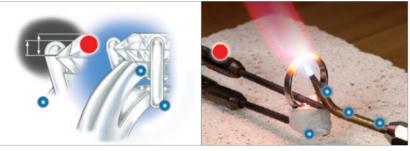
Another important consideration is to ensure a smooth, even and eye-catching finish using the correct tools.

#### Experience QAB on GIA.edu

As part of GIA's mission to protect and educate the gem- and jewelry-buying public, many GIA QAB are available for free at <u>GIA.edu/QAB</u>. A wide variety of topics about the design, production, alteration and repair of platinum jewelry are covered, including:

- Ring re-sizing (up and down), in a variety of platinum alloys using a torch or laser welder
- Alterations using a torch or laser welder
- Identifying and working with alloys, including platinum-cobalt and platinum-ruthenium
- Altering rings with and without diamonds in the shank

Each QAB topic on <u>GIA.edu</u> includes easy-to-understand illustrations, interactive graphics and instructional text. Many topics contain videos that address a specific issue, common problem areas, highlight specific engineering features and demonstrate relevant techniques.



Detailed illustrations and photos: Blue and red navigation beacons highlight quality criteria and other key features







#### **QAB** in Action

GIA graduates around the world are now using QAB in their workplace. This is helping them to improve the quality of the pieces produced and to satisfy their clients.

GIA Graduate Gemologist and Graduate Jeweler Kenny Ray is director of gemstones at Quality Gold, Inc. He's using GIA QAB at work, and shared how it's helping him.

"With QAB, I am confident that nothing was left undone. I know that when I am evaluating a finished piece, I can trust my decision to release it to a customer," Ray said.

Ray foresees GIA QAB playing a greater role in his job. He is already using it to check jewelry that crosses his desk, perform quality assurance and plans to train his co-workers and new hires on it.

Just like the GIA 4Cs created a universal standard for evaluating diamond quality, QAB are giving industry professionals benchmarks and a common language for creating jewelry.

GIA QAB are the beginning of a new era in jewelry design and manufacturing.

- Using a variety of setting styles including round prongs, v-prongs and bead setting
- Installation of platinum settings onto gold rings
- Pre-finishing and polishing
- Oxidation removal from platinum cobalt mountings



Two- to four-minute videos demonstrate recommended techniques

The Robert Mouawad Campus 5345 Armada Drive Carlsbad, CA 92008





## **SAVE** the Date

Monday, July 24 – New York, NY Friday, October 13 – Carlsbad, CA GIA.edu/career-fair

You Tube

## GIA SCHOLARSHIPS Available for 2018

The next application period is August 1 through September 30.

#### GIA.edu/scholarships





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