**Course Syllabus: "People Perish for Metal: A Series of Popular Lectures on the History of Gold and Silver, Exploration, Mining, Processing, and Their Use in Daily Life and Industry"**

**Course Volume:** 16 academic hours

**Course Objectives:**

* Examine the role of gold and silver in the economic, social, and cultural history of humanity.
* Study the technological aspects of gold and silver mining and processing throughout different historical periods.
* Analyze the symbolism and influence of gold and silver in art, religion, and politics.
* Discuss modern aspects of gold and silver use in the economy and technology.

**Target Audience:**

Retirees interested in the history and technology of gold and silver mining, as well as their significance in the economy and culture.

**Course Structure:**

**Module 1: Lecture Course: "Platinum, Gold, and Silver in Human History: From Antiquity to Modern Times"**

**Introduction: Fascinating Facts About Gold and Silver**

* **Lecture 1:** *"Platinum, Gold, and Silver in Human History: From Antiquity to Modern Times"* (2 hours)
	+ The role of platinum, gold, and silver in culture and religion.
	+ Historical gold rushes.
	+ Myths and legends about gold and silver.
* **Practical Task 1:** Writing short analytical essays.
	+ *"Studying Artifacts and Gold & Silver Objects from Museums Around the World"* (2 hours)
	+ Analysis of historical discoveries.
	+ Discussion of cultural heritage.
	+ *"The Issyk Golden Man."*

**Lecture 2: Gold and Silver in Ancient Civilizations**

* Egypt: Gold as "the skin of the gods."
* Mesopotamia and the first monetary systems.
* The Maya and Inca: Gold and silver as gifts from the gods.
* **Practical Task 2:** Report based on an analytical essay.

**Lecture 3: Antiquity – Precious Metals in Greece and Rome**

* Gold and silver coins in the economy.
* Gold and silver as symbols of power and status.
* Metallurgy and technologies of the ancient world.
* **Practical Task 3:** Report based on an analytical essay.

**Lecture 4: The Middle Ages – The Age of Gold and Silver**

* Mining of metals in the Middle Ages.
* Gold and silver in Christian and Islamic cultures.
* The role of the Crusades in the exchange and distribution of metals.
* **Practical Task 4:** Report based on an analytical essay.

**Lecture 5: The Age of Exploration and the "Silver Rush"**

* Colonization of the Americas and the discovery of rich deposits.
* The impact of precious metals on the European economy.
* The globalization of trade: Gold and silver as universal currencies.
* **Practical Task 5:** Report based on an analytical essay.

**Lecture 6: The Renaissance and the Early Modern Period**

* Art and patronage: How gold and silver supported culture.
* The role of metals in scientific discoveries.
* The development of the banking system and gold as a reserve.
* **Practical Task 6:** Report based on an analytical essay.

**Lecture 7: The 19th Century – The Gold Rush and Industrialization**

* Gold rushes in the USA, Australia, and Russia.
* Impact on social structures and migration.
* The use of silver and gold in the Industrial Revolution.
* **Practical Task 7:** Report based on an analytical essay.

**Lecture 8: The 20th Century – Standardization and a New Role for Precious Metals**

* The gold standard and its abolition.
* The use of platinum, gold, and silver in technology and medicine.
* The symbolism of precious metals in culture and politics.
* **Practical Task 8:** Report based on an analytical essay.

**Lecture 9: Platinum, Gold, and Silver in the Modern World**

* The precious metals market and their investment appeal.
* Platinum, gold, and silver in the jewelry industry.
* Metals of the future: Their use in electronics and renewable energy.
* **Practical Task 9:** Report based on an analytical essay.

**Module 2: Exploration and Mining of Platinum, Gold, and Silver (8 hours)**

**Lecture 10: *"Modern Methods of Prospecting for Precious Metal Deposits"* (2 hours)**

* Geology and mineralogy of platinum, gold, and silver.
* Technologies and tools for exploration.
* **Practical Task 10:** Report based on an analytical essay.

**Lecture 11: *"Methods of Mining Platinum, Gold, and Silver: From Traditional to Innovative"* (3 hours)**

* Open-pit and underground mining.
* Gold extraction from offshore deposits.
* Social and environmental consequences.
* Gold deposits in Kazakhstan.
* Illegal gold mining.
* **Practical Task 11:** Report based on an analytical essay.

**Module 3: Processing and Application of Platinum, Gold, and Silver (8 hours)**

**Lecture 12: *"Technologies for Processing Platinum, Gold, and Silver: From Ore to Product"* (2 hours)**

* Chemical processing methods.
* Waste disposal issues.
* Ion-exchange technology for gold extraction: A foreign perspective.
* Environmental aspects of platinum, gold, and silver mining and processing.
* Mining professions and education programs.
* **Practical Activity 12:**
	+ Virtual tour of a modern gold mining enterprise.
	+ Discussion: "How Modern Technologies Have Changed Gold Mining?"

**Lecture 13: *"Ethics and Ecology of Precious Metal Mining"***

* Environmental consequences of mining.
* Modern technologies for recycling and reuse.
* Social and cultural aspects of gold and silver mining.
* **Practical Activity 13:** Report based on an analytical essay.

**Lecture 14: *"The Role of Platinum, Gold, and Silver in the Global Economy"* (2 hours)**

* The total amount of platinum, gold, and silver mined in human history.
* Types of gold in jewelry: Colors and alloys.
* The role of platinum, gold, and silver in international trade.
* Use in medicine, electronics, and space research.
* **Practical Activity 14:** *"Analyzing the Modern Role of Platinum, Gold, and Silver in the Economy and Society"* (2 hours)
	+ Real-life case studies.
	+ Discussion of new trends.
	+ What are Olympic medals made of, and how much do they cost?

**Lecture 15: *"The Role of Platinum, Gold, and Silver in Everyday Life" (Part 1)***

* Gold and silver purity standards (karats and hallmarking).
* How to distinguish real platinum, gold, and silver?
* Jewelry care guide.
* Gold-plated silver items – care and maintenance.
* **Practical Activity 15:** *"Creating a Strategy for the Future Use of Gold"*
	+ Brainstorming session.
	+ Discussion of promising technologies.

**Lecture 16: *"The Role of Platinum, Gold, and Silver in Everyday Life" (Part 2)***

* Jewelry etiquette:
	+ How to wear gold jewelry correctly.
	+ How to wear silver jewelry correctly.
	+ Authentic and beautiful Kazakh jewelry.
* **Practical Activity 16:**
	+ **Final Session:**
	+ Course summary and certificate awarding.

**Format and Teaching Methods**

* Lectures with multimedia presentations.
* Discussions and analysis of historical sources.
* Practical assignments: Writing short analytical essays.

**Upon Completion of the Course, Participants Will:**

* Gain an understanding of the role of platinum, gold, and silver in human history.
* Learn to analyze the economic, cultural, and technological aspects of precious metal use.
* Be able to evaluate modern issues and future prospects of mining and utilizing platinum, gold, and silver.