



SOCIETY OF ECONOMIC GEOLOGISTS, INC.

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Student Chapter Annual Report Cover Page

Submission Deadline: September 30th

Submit to: studentprograms@segweb.org

Month/Year Reported: From September/2021 (09/2021) – To December/2023 (12/2023)

STUDENT CHAPTER:

Check if update needed at segweb.org

Name: UFOP SEG Student Chapter

University Affiliation: Universidade Federal de Ouro Preto - UFOP

Mailing Address: Departamento de Geologia, Morro do Cruzeiro s/n, Bauxita 35400-000 Ouro Preto, MG, Brazil

Dedicated E-mail: ufopseg.sc.degeo@ufop.edu.breto - UFOP

Website: _____

Logo: _____

Facebook: https://www.facebook.com/SEGUFOP/

Twitter: _____

Instagram: https://www.instagram.com/ufopseg/

LinkedIn: https://www.linkedin.com/in/ufop-seg-sc/

YouTube: https://www.youtube.com/channel/UC0-tX_c2oS37R76DNVW_3dA

Chapter Executive Committee (*in office during the time frame captured on this report*) (type "Vacant" if position not filled): The new committee is reported on the Student Chapter Membership Information form (SCMIF).

President	<u>Flávia Compassi da Costa</u> Name	<u>flavia.compassi@aluno.ufop.edu.br</u> E-mail
VicePresident	<u>Luis Artur Souza Oliveira</u> Name	<u>luis.souza@aluno.ufop.edu.br</u> E-mail
Secretary	<u>Lucas Medeiros da Silveira</u> Name	<u>lucas.silveira@aluno.ufop.edu.br</u> E-mail
Treasurer	<u>Brener Otávio Luiz Ribeiro</u> Name	<u>brener.ribeiro@aluno.ufop.edu.br</u> E-mail

Chapter Academic Sponsor:

Check if SEG Fellowship in good standing

<u>Edison Tazava</u> Name	<u>tazava@ufop.edu.br</u> E-mail	<u>+55 31 999278880</u> Phone
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<u>Departamento de Geologia Morro do Cruzeiro s/n - Bauxita 35400-000 Ouro Preto MG Brazil</u> Address	_____ Fax
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Chapter Industry Sponsor (*not affiliated with the student chapter's institution*): Check if SEG Fellowship in good standing

<u>Carlos Eduardo R. Delgado</u> Name	<u>carlos.delgado@vale.com</u> E-mail	<u>+55 31 991172632</u> Phone
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_____ Address	_____ Fax
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Sponsoring Institution or Company(name): Vale



UFOP SEG STUDENT CHAPTER

ANNUAL REPORT

September/2022 – December/2023

**Ouro Preto
2023**



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1. Members

The UFOP SEG Student Chapter is composed of 23 members:

Member	SEG ID
Alana Lima Pereira	
Aline Souza	
Arthur Silveira	
Brener Otávio Luiz Ribeiro	*
Cassiano Emílio	
Flávia Compassi da Costa	*
Ivan Batista Lisboa	
João Victor Cunha	
Juliana Fernandes Couto	
Lucas Medeiros da Silveira	*
Luis Artur Souza Oliveira	*
Nayara	
Rafael Matoso Alvarenga	

* Students SEG members

Follow the activities performed by the members during the third term of the UFOP SEG Student Chapter:

2. Executive Committee



Flávia Compassi da Costa - President



Luis Artur Souza Oliveira - Vice-President

President: Flávia Compassi da Costa

She is a PhD student working on the geochemical prospecting of pegmatites and the mineral chemistry of beryls as petrogenetic indicators. She is also a substitute professor in the Geology department, teaching Mineralogy, General Geology, and Pedology.

Vice-President: Luis Artur Souza Oliveira

He is a Ph.D. student working on a Survey of the architecture of the lithosphere and implications for the metallogenesis of the Iron Quadrangle using geophysical methods.

Secretary: Lucas Medeiros da Silveira

Geological Engineering undergraduate student.



Lucas Medeiros da Silveira - Secretary



Brener Otávio Luiz Ribeiro - Treasurer

Treasurer: Brener Otávio Luiz Ribeiro

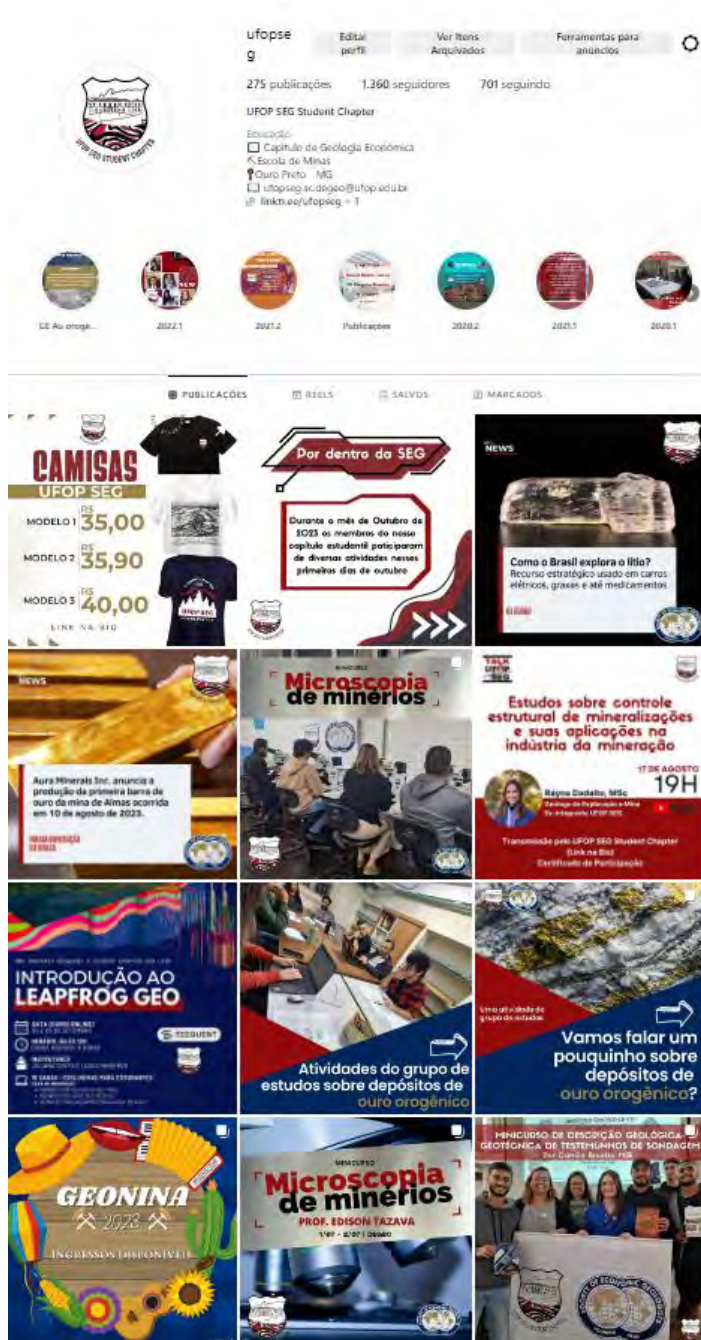
PhD student working on a mineral prospectivity map and the genesis of an orogenic gold deposit.

3. Regular Meetings

The executive committee holds meetings to vote and deliberate on agendas to be passed on to the other members. To keep up with the chapter's planned activities, the members maintain a fortnightly meeting routine to update everyone on current projects, increase participation, and allow new members to join. Meetings currently take place in person on Wednesdays in the student chapter room.



4. Posts on social media



The social media of the chapter is considered an important work front to disseminate economic geology and stimulate the students to search for this theme and participate in the chapter.

Instagram had periodic publications about various themes linked to economic geology and commemorative dates in geology. Social media was also used to spread online events that occurred during the period.

5. Participation in SIMEXMIN

The Executive Committee of the UFOP SEG Student Chapter was awarded some free tickets to the Brazilian Symposium on Mineral Exploration (SIMEXMIN), a reference in mineral prospecting organized by the Agency for the Development and Innovation of the Brazilian Mineral Sector - ADIMB.

The 10th edition of the event took place in Ouro Preto, from November 27 to 30, 2022, at the Metallurgical Park, located in the historic center of Ouro Preto.

It is an international and national event, with the participation of professionals, academics, and government from Brazil's mining and mineral research sector.



6. III ENAGE

The third edition of ENAGE, and the first after the pandemic, was held in the first week of December and has a large number of the Chapters of Economic Geology students in Brazil in its organization. The event took place after the Mineral Exploration Symposium (SIMEXMIN).

With some members of UFOP's SEG as the main coordinators, the event featured several lectures.

This edition featured several new features, such as the presentation of papers in poster form during the coffee break, and a quiz competition with the registered chapters. There were also two field trips.



DIA 01 - MANHÃ
01 DE DEZEMBRO DE 2022

HORÁRIO	ATIVIDADE
08:30 - 09:30	Check-in
09:30 - 09:50	Abertura
09:50 - 10:45	SESSÃO METAS PRECÍOSES por Dr. Fábio Luis Guimarães (Bemka)
10:45 - 10:50	SESSÃO II EVOLUÇÃO DE SISTEMAS HIPOTERMAIS por Prof. Dr. John Thompson (PetroScience University of Bristol)
10:50 - 10:55	Coffee Break
10:55 - 11:45	SESSÃO III MINERALIZAÇÃO DE MINERAIS TERMAIS SAZAS por Prof. Dra. Lucilla Aparecida Ramos de Oliveira (UFVJM)
11:45 - 12:15	PROJETO SEG BRASIL por ESt. Davina Falga Gonçalves Costa (UFMG)
12:15 - 12:45	Almoço

DIA 01 - TARDE
01 DE DEZEMBRO DE 2022

HORÁRIO	ATIVIDADE
12:45 - 13:45	Almoço
13:45 - 14:30	SESSÃO IV PERAMBULAÇÃO PARA AS CULCOTÊNCIAS por Dr. Jake Gabriel Morris (University of Exeter, UK)
14:30 - 15:15	SESSÃO V DIREITO MINERÁRIO por Eng.ª Micaela Julieta Rachele Silva Caragat (Instituto)
15:15 - 15:45	SESSÃO VI MULHERES NA MINERAÇÃO por ESt. Ana Luiza Rocha de Oliveira (UFPA)
15:45 - 17:00	Sessão Pôster e Coffee Break
17:00 - 17:45	SESSÃO EXTRA AGRICULTURAS por ESt. Magda Bergmann (USP-CPQD)

* A programação do evento está sujeita a alterações, conforme melhor adequação à programação do evento. Em caso de qualquer alteração, esta será pontualmente divulgada nos canais do evento.

DIA 02 - MANHÃ
02 DE DEZEMBRO DE 2022

HORÁRIO	ATIVIDADE
08:30 - 09:15	SESSÃO VII METAS BASE por ESt. Patrícia Sara de Freitas Toledo (UFRMG)
09:15 - 10:00	SESSÃO VIII MINERAIS ESTRATÉGICOS por Prof. PhD. César Fonseca Ferreira Filho (UNB)
10:00 - 10:30	Sessão Pôster e Coffee Break
10:30 - 11:45	SESSÃO IX METAS FORTÍSSIMAS por Prof. PhD. Marco Antônio da Silva Braga (UFPA)
11:45 - 12:15	APRESENTAÇÃO ORAL SESSÃO X por Caetano Ruzate (UFSC/ANM)
12:15 - 12:45	Almoço

DIA 02 - TARDE
02 DE DEZEMBRO DE 2022

HORÁRIO	ATIVIDADE
12:45 - 13:45	Almoço
13:45 - 14:30	SESSÃO EXTRA MINERAÇÃO ESPACIAL por Prof. Dr. Anuro Fedeiro Costa (UFRMG)
14:30 - 15:30	COMPETIÇÃO SEG
15:30 - 16:00	Encerramento
16:00 - 18:00	Coffee Break e Close do Mundo

* A programação do evento está sujeita a alterações, conforme melhor adequação à programação do evento. Em caso de qualquer alteração, esta será pontualmente divulgada nos canais do evento.



7. Geologist's Week – Processo de avaliação de recursos minerais: conceitos e boas práticas (Mineral resource evaluation process: concepts and good practices)

The Geologist's Day in Brazil is celebrated on May 30, so the students of the Geology Department of the University of Ouro Preto and the department's entities organized a face-to-face event with 8 lectures, each about a study of the entities. UFOP's SEG gave a lecture on “Processo de avaliação de recursos minerais: conceitos e boas práticas - The mineral resource evaluation process: concepts and good practices, given by Bruno Akl Figuinha.

Bruno Figuinha is a geologist who graduated from the State University of Campinas and is a postgraduate student in data science at the University of São Paulo. He has 11 years of experience in mining. He is currently the area manager for resource evaluation at AngloGold Ashanti's Minas Gerais mines (Córrego do Sítio, Cuiabá, and Lamego). He is a member of the AusIMM (Australasian Institute of Mining and Metallurgy) and a Competent Person for resources.



8. Course: Introduction to Economic Geology

The course proposed by the UFOP SEG Student Chapter entitled "Introduction to Economic Geology" aimed to introduce undergraduate students to studies focused on mineral deposits, covering wide-ranging topics in Economic Geology. It also encouraged new students to become members of the student chapter.

The course was held during the 2023/1 semester, on May 19 and 20, at the Department of Geology (DEGEO). The first day of the course (19/05) was divided into four modules, each of which covered the following topics:

- (i) conditioning factors for the formation of a mineral deposit;
- (ii) types of mineral deposits;
- (iii) prospecting for mineral deposits and
- (iv) a brief introduction to mine geology.

On the second day (20/05) there was a regional reconnaissance field activity in the Iron Quadrangle and a technical visit to Jaguar Mining's Paciência gold mine.

Fifteen students from the Geological Engineering, Mining Engineering, and Civil Engineering courses took part in the activity.



CRONOGRAMA

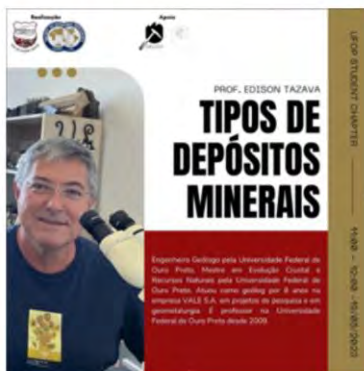
DIA I - 19/05/2023

HORÁRIOS	ATIVIDADES
08:30 - 09:00	Credenciamento
09:00 - 09:30	Apreensão da UFOP SEG Student Charter Lucas Silveira
09:30 - 10:30	Módulo I - Sistemas mineralizantes e processos mineralizantes: uma introdução Prof. Gustavo Melo
10:30 - 11:00	INTERVALO
11:00 - 12:00	Módulo II - Tipos de depósitos mineralizantes Prof. Edisson Tazava
12:00 - 14:00	Módulo III - Como descobrir um depósito mineral Doutorandos do PPG Brenner Ribeiro e Flávia Compassi
14:00 - 15:00	INTERVALO
15:00 - 15:30	Módulo IV - Geologia de mina a céu aberto Prof. Flávio Afonso Filho
15:30 - 18:30	COQUETEL

CRONOGRAMA

DIA II - 20/05/2023

HORÁRIOS	ATIVIDADES
08:00 - 17:00	Atividade de campo: reconhecimento regional do QF e visita técnica Prof. Gustavo Melo
18:00	CONFRATERNIZAÇÃO





9. Study Group: Orogenic Gold Deposits

The main purpose of this study group is to learn about the morphological aspects and genetic factors of orogenic gold deposits, with an emphasis on Brazilian deposits. The objectives include understanding:

- the conditions necessary for the formation of an orogenic gold deposit
- source of fluids, gold, and associated metals
- mineralization paragenesis, fluid chemistry, and common isotopic signatures (fingerprints)
- hydrothermal alteration zones and geochemical signatures (footprints)
- structural/lithological control and mineralization styles
- prospective vectors and basics of gold exploration.

Meetings are taking place every two weeks on Wednesdays during the 2023/1 and 2023/2 academic terms. The study group started on June 7 and will run until December 13. 15 places were offered, and 8 students joined.

The following articles were selected:

Article 1 - Introduction to Au-orogenic Deposits

Groves, D. I., Goldfarb, R. J., Gebre-Mariam, M., Hagemann, S. G., & Robert, F. (1998). Orogenic gold deposits: a proposed classification in the context of their crustal distribution and relationship to other gold deposit types. *Ore geology reviews*, 13(1-5), 7-27. [https://doi.org/10.1016/S0169-1368\(97\)00012-7](https://doi.org/10.1016/S0169-1368(97)00012-7)

The topics to be covered in the introductory class were: (i) The chemistry of gold; (ii) How gold is found in nature and the main types of deposits; (iii) What are orogenic gold deposits? (iv) How are these deposits formed? Reviewing collisional tectonic environments; (v) Main aspects of an orogenic gold deposit: source of fluids, sulfur, gold, and associated metals; fluid chemistry; Pressure and Temperature conditions and distribution of these deposits throughout the crust, conduction of hydrothermal fluids: the role of geological structures; chemical reactions and zones of hydrothermal alteration; geological traps and styles of mineralization; mechanisms of precipitation of the mineralizing fluid and mineral paragenesis. (vi) Spatial and temporal distribution of orogenic gold deposits.

Discussion of the emergence of the designation for the class of orogenic gold deposits and the criteria used for this classification, to understand the basic aspects of these deposits.

Article 2 - Genetic model of an Au-orogenic deposit

Groves, D. I., Santosh, M., Deng, J., Wang, Q., Yang, L., & Zhang, L. (2020). A holistic



model for the origin of orogenic gold deposits and its implications for exploration. *Mineralium Deposita*, 55, 275-292. <https://doi.org/10.1007/s00126-019-00877-5>

Identification of the main aspects of the current holistic model for the genesis of Au-orogenic deposits. The main differences between the model proposed by Groves et al (2020) and the characteristics pointed out by Groves et al (1998) were also identified to highlight the evolution of scientific knowledge about orogenic gold deposits.

Article 3 - Source of fluids, sulfur, and associated metals

Goldfarb, R. J., & Groves, D. I. (2015). Orogenic gold: Common or evolving fluid and metal sources through time. *Lithos*, 233, 2-26. <https://doi.org/10.1016/j.lithos.2015.07.011>

Review article on the evolution of fluid and metal sources during the formation of orogenic gold deposits. The article reviews the analytical methods commonly used to trace the source of fluids and metals associated with gold deposits, and the mistakes that can occur when analyzing this data. It also presents the most current models for the source of fluids and metals.

Article 4 - Source of fluids, sulfur, and associated metals

Kresse, C., Lobato, L. M., Hagemann, S. G., & e Silva, R. C. F. (2018). Sulfur isotope and metal variations in sulfides in the BIF-hosted orogenic Cuiabá gold deposit, Brazil: Implications for the hydrothermal fluid evolution. *Ore Geology Reviews*, 98, 1-27. <https://doi.org/10.1016/j.oregeorev.2018.05.012>

Case study of the Cuiabá deposit, a mesozonal orogenic gold deposit located in the Iron Quadrangle, São Francisco Craton. The purpose of this article is to discuss the use of S isotopes in sulfides to trace the source of sulfur and to identify mass-independent fractionation (MIF). It also discussed the significance of the results of trace element geochemistry in sulfides and their implications for metallogenetic modeling.

Article 5 - Lithological and structural control of mineralization

Fabricio-Silva, W., Rosière, C. A., & Bühn, B. (2019). The shear zone-related gold mineralization at the Turmalina deposit, Quadrilátero Ferrífero, Brazil: Structural evolution and the two stages of mineralization. *Mineralium Deposita*, 54, 347-368. <https://doi.org/10.1007/s00126-018-0811-7>

Case study of the Turmalina deposit, an orogenic gold deposit located in the Pitangui Greenstone Belt, São Francisco Sul Craton. This work presents the structural control and geometry of the ore bodies as well as the relationship between deformational phases, progressive metamorphism, and mineralization pulses along the Rio das Velhas orogeny.



Article 6 - Lithological and structural control of mineralization

Pires, G. L. C., Bongiolo, E. M., Renac, C., Nascimento, D. B., & Prado, M. (2016). Structural and lithological controls of gold-bearing veins associated with the Brasiliano-Pan African Orogeny: An example from the Buracão Area, Araí Group (Brasília Fold Belt, Brazil). *Journal of South American Earth Sciences*, 66, 180-195. <http://dx.doi.org/10.1016/j.jsames.2016.01.001>

Case study of the Buracão area deposits, orogenic gold deposits of Brazilian age located in the Brasília Orogen. This paper presents a study of the structural control of mineralization, as well as lithological control as a physical-chemical barrier to the precipitation of mineralizing fluid. The deposits are hosted in carbonaceous phyllites, and the paper discusses the influence of this reactive lithology on variations in oxygen and sulfur fugacity and, consequently, on sulfide precipitation.

Article 7 - Prospective vectors and favorability mapping on a regional scale

Groves, D. I., Santosh, M., & Zhang, L. (2020). A scale-integrated exploration model for orogenic gold deposits based on a mineral system approach. *Geoscience Frontiers*, 11(3), 719-738. <https://doi.org/10.1016/j.gsf.2019.12.007>

Article on the identification of mappable expressions that can be used in the prospective modeling of orogenic gold deposits. In this article, all the crucial factors for the formation and preservation of these deposits are pointed out, as well as the characteristic signatures that can indicate possible mineralized zones.

Article 8 - Prospective vectors and favorability mapping on a regional scale

Maepa, F., Smith, R. S., & Tessema, A. (2021). Support vector machine and artificial neural network modeling of orogenic gold prospectivity mapping in the Swayze greenstone belt, Ontario, Canada. *Ore Geology Reviews*, 130, 103968. <https://doi.org/10.1016/j.oregeorev.2020.103968>

Case study of the application of artificial intelligence (Machine Learning) in the prospecting of orogenic gold deposits in the Swayze Greenstone Belt, Ontario - Canada. This work uses Support Vector Machine algorithms and Artificial Neural Networks to model data referring to different mappable expressions indicative of gold mineralization to generate a favorability map for the occurrence of gold.

Article 9 - Prospective vectors and favorability mapping on a local scale

Campos, L. D., de Souza, S. M., de Sordi, D. A., Tavares, F. M., Klein, E. L., & Lopes, E. C. D. S. (2017). Predictive mapping of prospectivity in the Gurupi orogenic gold belt, north-

northeast Brazil: an example of district-scale mineral system approach to exploration targeting. *Natural Resources Research*, 26, 509-534. <https://doi.org/10.1007/s11053-016-9320-5>

Case study of orogenic gold deposits in the Gurupi belt, São Luis Craton. This work presents the identification of footprints and other prospective vectors, on a regional scale, for mapping favorable zones for orogenic gold mineralization.



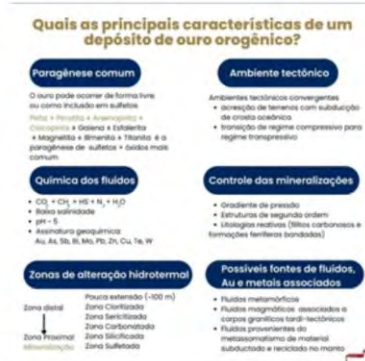
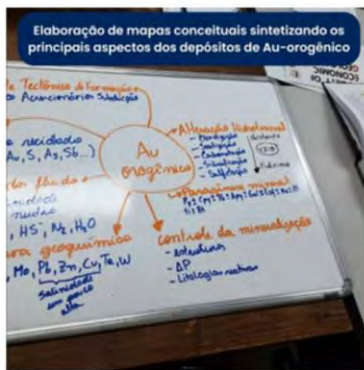
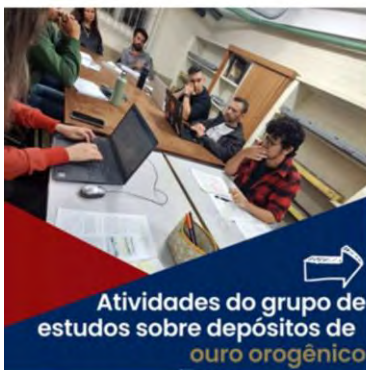
Grupo de estudos de depósitos de

OURO

Orogênico

Proposta do grupo de estudos:

- Modelos que descrevem como depósitos de ouro orogênico se formam.
- Quais são as principais fontes de fluidos, enxofre, ouro e metais associados.
- Controle estrutural e litológico para a formação desses depósitos.
- Como identificar zonas favoráveis para hospedar depósitos de ouro orogênico.



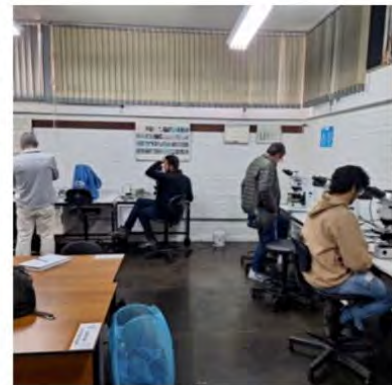
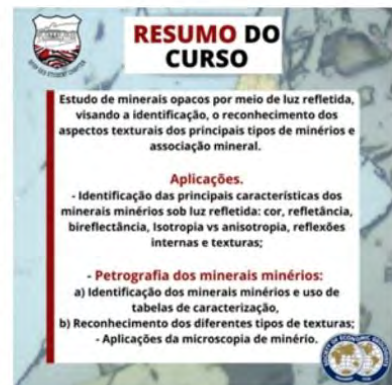
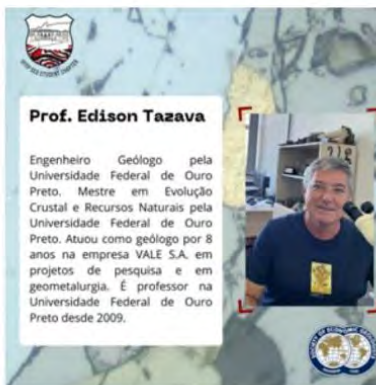
10. Course: Geological-geotechnical description of drill cores

On May 17, our mini-course on the geological-geotechnical description of drill cores was given by Camila Milli, a former president of the chapter. The course had three modules: i) concepts and fundamentals, ii) description practice, and iii) data processing.



11. Course: Ore microscopy

On July 1st and 2nd, our supervisor Professor Edison Tazava gave a mini-course on ore microscopy. The study of opaque minerals using reflected light is aimed at the identification and recognition of the textural aspects of the main types of ores and mineral association and applications.



12. Course: Routine modeling and estimation in Leapfrog

This course will cover topics such as practical modeling instructions and how routine model updates work in a mine. Basic concepts of geostatistics. And block model creation and estimation in Leapfrog edge. It will be given by geologists Nathan Massote and Edson Ricardo Maia Ferraz from Anglo Gold Ashanti. It will take place on November 17, 2023.



MINICURSO

ROTINA DE MODELAGEM

ESTIMATIVA NO LEAPFROG

DATA
17 DE NOVEMBRO

HORÁRIO
8:30 ÀS 12H E DE 14 ÀS 16:30

LOCAL
AUDITÓRIO 2 - DEPARTAMENTO DE GEOLOGIA (DEGEO-UFOP)



 **leapfrog**
FAST, DYNAMIC GEOLOGICAL MODELLING

13. Seequent Student Associates Program and Leapfrog Geo course

The Seequent Student Associates Program was a partnership between the Seequent company and the Student Chapters from Brazil, associated with the Society of Economic Geologists. The project was developed to promote and make the knowledge in implicit geological modeling, with Leapfrog Geo and Leapfrog Edge accessible to universities with Geology courses in Brazil.

That way, some students were selected by the Chapters to be capacitated by Seequent and become able to spread the knowledge of geological modeling, through short courses and seminars given within the university.

Leapfrog Geo online course, software specialized in geological mapping taught by students from the student chapters of SEG in Brazil in partnership with Seequent at federal universities. The training was carried out with the students of the UFOP SEG Student Chapter to train trainers capable of teaching mini-introductory Leapfrog Geo courses at the Federal University of Ouro Preto, with the licenses provided by Seequent to those enrolled.



UMA PARCERIA SEEQUENT E STUDENT CHAPTER SEG UFOP

INTRODUÇÃO AO LEAPFROG GEO

DATA (CURSO ONLINE)
04 E 05 DE SETEMBRO

HORÁRIO: 8H ÀS 12H
CARGA HORÁRIA: 8 HORAS

INSTRUTORES
JULIANA COUTO E LUCAS MEDEIROS

15 VAGAS - EXCLUSIVAS PARA ESTUDANTES
TAXA DE INSCRIÇÃO:

- MEMBRO UFOP SEG COM ID SEG: FREE
- MEMBRO ATIVO UFOP SEG: R\$ 20,00
- ALUNO DE GRADUAÇÃO/PÓS-GRADUAÇÃO: R\$ 30,00

SEEQUENT



14. Talk SEG - Tracing Deep Earth Processes Using Diamonds

The second lecture in the Talk UFOP SEG series on our YouTube channel, "Studies on the structural control of mineralization and its applications in the mining industry", was given by geologist Ráyna Dadalto, who used to be a member of our chapter and is now a mine geologist at Mozaic Fertilizantes. YouTube link: https://www.youtube.com/watch?v=t_UFzbQhG3I



Estudos sobre controle estrutural de mineralizações e suas aplicações na indústria da mineração

17 DE AGOSTO
19H



Ráyna Dadalto, MSc
Geóloga de Exploração e Mina
Ex-integrante UFOP SEG



Transmissão pelo UFOP SEG Student Chapter
(Link na Bio)
Certificado de Participação



15. Presentation of work at events

The members of our student chapter took part in various activities in the first few days of October.

- Brener Ribeiro (chapter treasurer) took part in the V Brazilian Metallogeny Symposium from October 1st to 4th in Granada, RS. He presented work related to his master's degree.
 - Mapping Orogenic Au deposits and measuring the effects caused by different negative samples and machine learning algorithms at Pitangui greenstone belt, São Francisco Craton, Brazil. Ribeiro, B. O. L.¹; Barbuena, D.²; Melo, G. H. C.¹; Motta, J. G.
 - Geology of Papagaios Orogenic Au deposit, Pitangui Greenstone Belt (São Francisco Craton): host rocks, hydrothermal alteration and mineralization. Ribeiro, B. O. L.¹; Melo, G. H. C.¹; Barbuena, D.²; Batista, S. P. V.³
- Lucas Silveira (Secretary) and Cassiano Emilio da Silva (Active Member) took part in the announcement of the UFOP SEG SC at Geocalouros on October 5th.
- Rafael Matoso (Active Member) presented SEG papers at the 17th Southeast Geology Symposium from October 8 to 11 in Rio de Janeiro, RJ.
 - Organization of events and their importance in the dissemination of economic geology. Authors: Rafael Matoso Alvarenga; Flávia Compassi; Luis Arthur Souza Oliveira; Cassiano Emilio da Silva; Brener Ribeiro; Lucas Silveira.
 - UFOP SEG Student Chapter field trip 2022: Brasília Orogen, Minas Gerais. Authors: Rafael Matoso Alvarenga; Juliana Fernandes Couto; Ivan Lisboa; Luis Artur Souza Oliveira; Cassiano Emilio da Silva; Emilio Evo Magro Corrêa Urbano; Lucas Silveira.
- Flávia Compassi (President) participated in the 17th Southeastern Geology Symposium from October 8 to 11 in Rio de Janeiro - RJ, presenting work related to her doctorate.
 - Geochemical prospecting of pegmatites in Espírito Santo (Araçuaí Orogen - Eastern Pegmatite Province of Brazil) with current sediments, using area concentration fractal model and multicriteria analysis. Authors: Flávia Compassi; Brener Ribeiro; Lucas Pereira Leão; Ricardo Scholz.



Brener Ribeiro (tesoureiro do capítulo) participou do V Simpósio Brasileiro de Metalogenia nos dias 01 a 4 de outubro em Granado – RS. Apresentando trabalhos relacionados ao seu mestrado.



Lucas Silveira (Secretário) e Cassiano Emilio da Silva (Membro ativo) participaram da divulgação da UFOP SEG SC no Geocalouros no dia 5 de outubro



Rafael Matoso (Membro ativo) apresentou trabalhos da SEG no 17º Simpósio de Geologia do Sudeste nos dias 8 a 11 de outubro no Rio de Janeiro – RJ.



Flávia Compassi (Presidente) participou do 17º Simpósio de Geologia do Sudeste nos dias 8 a 11 de outubro no Rio de Janeiro – RJ, apresentando trabalho relacionado ao seu doutorado.



16. Handbook: History and Geology of Gold in the Ouro Preto Region (História e Geologia do Ouro na Região de Ouro Preto)

This handbook was prepared by members Brener Otávio Luiz Ribeiro, Flávia Compassi da Costa, João Victor de Oliveira Cunha, Allana Isis de Mello Corrêa and Aline Terezinha de Souza Rodrigues in partnership with the University Extension Program "Geosciences Without Walls" (Geologia sem muros) and will be published and distributed to schools in the region.

The handbook describes:

1. The importance of gold mining in the historical context of Ouro Preto
2. Why is gold so valuable?
3. Where does gold come from?
4. How are gold deposits found?
5. Environmental impacts of mining and conscious mining

17. Creation of an extension project

University Extension is the educational, cultural, and scientific process that inseparably links teaching and research and enables a transformative relationship between university and society.

The student chapter's extension project is called "MINING: A HISTORICAL, CULTURAL AND TOURIST PERSPECTIVE OF OURO PRETO" (MINERAÇÃO: UMA PERSPECTIVA HISTÓRICA, CULTURAL E TURÍSTICA DE OURO PRETO)

The city of Ouro Preto, currently recognized by UNESCO as a world heritage site, emerged at the end of the 17th century with the arrival of the Bandeirantes and the discovery of gold. The region's population growth was triggered by intense gold mining, which lasted until the mid-19th century, culminating in its recognition as the capital of Minas Gerais in 1823.

Currently, the region's economy is primarily subsidized by the exploitation of gold, iron, and imperial topaz, and secondarily by tourism. Tourist activity in Ouro Preto is a direct response to the preservation of the colonial core, the deactivated underground mines, and nature reserves, catering for ecological, geological, historical, and cultural tourism. Despite the great influence of the current economy, tourism, the history of the city of Ouro Preto and the creation of the School of Mines and the creation of the School of Mines and the Gorceix Foundation, there are still obstacles that prevent the exchange of knowledge between the University and the community of Ouro Preto about economic geology and its importance at regional and global level. Whether due to the complexity of the subject or even the lack of dialogical interaction between the communities. communities.

Therefore, this project aims to carry out activities that promote the dissemination of



knowledge related to mineral deposits, contextualizing the Ouro Preto region in a language that is accessible to the population. Among these activities are the preparation of informative booklets, the creation of teaching materials for the, and the making of educational geotourism maps.

In addition, the project also aims to record historical and popular knowledge about mineral exploration in the region and to build a bridge between students from Ouro Preto's public schools and the University, presenting the Geological Engineering and Mining Engineering courses from the perspective of mineral exploration. The activities of this project are aimed at elementary school students in public schools and geotourist guides in Ouro Preto and will be carried out by students and teachers associated with the student chapter of the Society of Economic Geologists of the Department of Geology - UFOP (UFOP SEG Student Chapter). The results of this work will be disseminated on social media, in presentations at state schools in the outlying districts of Ouro Preto, in training courses for geotourist guides, and at congresses and symposia focused on geoscience education.

The project has already been approved by the Department of Geology and will begin on March 1, 2024.

18. Planning for the next management

We plan to maintain standard activities: regular meetings, sending the entity's regulatory documents to Escola de Minas and posting on social media.

other suggestions are:

- i. Continue the Seequent Student Associates Program.
- ii. Organization of other lectures for the TALK UFOP SEG project.
- iii. Organization of the 4th ENAGE
- iv. Execution of the extension project
- v. Execution of the field trip - Bahia route
- vi. 2nd Introduction to Economic Geology Course
- vii. New study group focusing on mineral prospecting