



UNIVERSITÀ DI PISA PETROGRAFIA REGIONALE

SERGIO ROCCHI

Anno accademico
CdS

2020/21
SCIENZE E TECNOLOGIE
GEOLOGICHE

Codice
CFU

064DD
6

Moduli PETROGRAFIA REGIONALE	Settore/i GEO/07	Tipo LEZIONI	Ore 64	Docente/i SERGIO ROCCHI
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Obiettivi di apprendimento

Conoscenze

Acquisizione di conoscenza critica analitica e sintetica delle caratteristiche petrografiche, geochimiche, petrologiche e giaciture delle associazioni magmatiche (plutoniche, vulcaniche e subvulcaniche) italiane, e delle relazioni tra queste associazioni e l'evoluzione geodinamica dell'area Mediterranea dal Paleozoico ad oggi.

Modalità di verifica delle conoscenze

La verifica delle conoscenze verterà su (1) capacità di preparare una relazione scientificamente e formalmente corretta su un argomento del corso, approfondito tramite studi di pubblicazioni scientifiche, (2) capacità di esposizione orale della relazione, (3) capacità di discussione di argomenti trattati nelle lezioni frontali.

Comportamenti

Lo studente potrà acquisire atteggiamenti critici sulle metodologie di indagine in petrologia ignea.

Modalità di verifica dei comportamenti

Interazione col docente e col gruppo durante e le lezioni e l'attività sul terreno.

Prerequisiti (conoscenze iniziali)

Conoscenze di petrografia delle rocce ignee.
Conoscenze di base di geochimica degli elementi in tracce.
Conoscenze di base di geochimica degli isotopi radiogenici.

Indicazioni metodologiche

- lezioni frontali, con ausilio di slide
- sito di elearning del corso: scaricamento materiali didattici, comunicazioni docente-studenti
- ricevimenti su appuntamento per email, uso della posta elettronica come strumento di comunicazione docente-studenti
- slide in inglese

Programma (contenuti dell'insegnamento)

Introduzione al corso. Richiami di strumenti di geochimica, geochimica isotopica e geocronologia fondamentali per il corso (diluiti nelle prime lezioni).

Stadio di rift Adria-Europa. Magmatismo intraplacca Triassico-Cretaceo: Punta Bianca-Brugiana, Plateau Ibleo meridionale.

Stadio Oceanico. Magmatismo Giurassico del bacino oceanico Ligure-Piemontese: associazioni ofiolitiche di Corsica e Appennino settentrionale.

Stadio di arco magmatico. Vulcanismo Oligo-Miocenico della Sardegna. Detriti vulcanici nelle arenite dell'Appennino settentrionale.

Stadio Postcollisionale Alpino. Vulcanismo Eocenico-Oligocenico periadriatico Veneto, Queglia, Pietre Nere, Sicilia SE.

Stadio postcollisionale Appenninico ed estensione continentale. Magmatismo Miocenico-Quaternario della Provincia Magmatica Toscana (Toscana e Lazio settentrionale); basamento metamorfico toscano. Vulcanismo Quaternario della Provincia Magmatica Romana (Vulsini, Vico, Sabatini, Albani, Ernici, Roccamonfina) e della provincia Umbra. Vulcanismo Plio-Quaternario della Provincia Campana (Isole Pontine, Campi Flegrei, Somma-Vesuvio, Ischia).



UNIVERSITÀ DI PISA

Le intrusioni ignee superficiali e le camere magmatiche.

Stadio di retroarco ed oceanizzazione Tirrenica. Vulcanismo Plio-Pleistocenico della Sardegna. Attività vulcanica sottomarina Plio-Quaternaria del Tirreno meridionale: Vavilov e Marsili.

Subduzione ionica. Vulcanismo Quaternario dell'arco delle Isole Eolie e dei seamounts eoliani.

Slab-window verticali ai lati della placca Ionica. Attività vulcanica Quaternaria del Monte Vulture, e del Monte Etna.

Attività igea intraplacca. Attività vulcanica Quaternaria dei Monti Iblei e di Ustica.

Rift del Canale di Sicilia. Vulcanismo Plio-Pleistocenico di Linosa e Pantelleria.

Evoluzione geodinamica e magmatologica. Revisione critica dei principali modelli evolutivi.

Lezione/i fuori sede in zone di interesse petrografico regionale per un totale di 1 CFU.

Bibliografia e materiale didattico

Slides presentate a lezione: <https://polo3.elearning.unipi.it/course/view.php?id=2672>

Bibliografia

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UNIVERSITÀ DI PISA

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UNIVERSITÀ DI PISA

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Indicazioni per non frequentanti

Slides corso disponibili a: <https://polo3.elearning.unipi.it/course/view.php?id=2672>

Modalità d'esame

Esame finale, costituito da (1) stesura una relazione su un argomento concordato col docente, (2) presentazione orale della relazione, (3) discussione di argomenti trattati nelle lezioni frontali. Le tre parti dell'esame finale concorrono in maniera alla formazione del voto finale.

Stage e tirocini

No

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