

海洋生物多样性与生物资源专业入学考试大纲

专业名称：海洋生物多样性与生物资源

Морское биоразнообразие и биоресурсы

Marine Biodiversity and Bioresources

考试课程名称：海洋生物

Морская биология

Marine Biology

考试内容：

Основы морской биологии. Жизнь в океанских и морских экосистемах. Физические и биологические характеристики морской среды.

Морское биоразнообразие. Разнообразие жизненных форм в морских экосистемах. Классификация и распределение морских организмов.

Биоресурсы моря. Морские ресурсы, их значение и устойчивое использования. Рыбные запасы и другие важные для человечества морские биоресурсы.

Адаптации морских организмов. Приспособления, позволяющих морским организмам выживать и процветать в различных морских условиях.

Морские экосистемы и их функционирование. Ключевые морские экосистемы, такие как мангровые заросли, коралловые рифы, глубоководные и прибрежные системы, и их роль в глобальных экологических процессах.

Взаимодействия в морских экосистемах. Взаимосвязи между морскими видами, включая хищничество, симбиоз и конкуренцию, и их влияние на структуру и функции морских сообществ.

Круговороты веществ и потоки энергии в море. Круговорот веществ и поток энергии в морских экосистемах.

Угрозы морскому биоразнообразию. Антропогенные и естественные угрозы морскому биоразнообразию, включая загрязнение, изменение климата и перелов рыбы.

Сохранение и управление морскими ресурсами. Стратегии и меры по сохранению морского биоразнообразия и устойчивому управлению морскими биоресурсами.

Foundations of Marine Biology. Life in oceanic and marine ecosystems. Physical and biological characteristics of the marine environment.

Marine Biodiversity. Diversity of life forms in marine ecosystems. Classification and distribution of marine organisms.

Marine Bioresources. Marine resources, their importance, and sustainable use. Fish stocks and other important marine bioresources for humanity.

Adaptations of Marine Organisms. Adaptations of marine organisms to survive and thrive in various marine conditions.

Marine Ecosystems and Their Functioning. Key marine ecosystems, such as mangroves, coral reefs, deep-sea, and coastal systems, and their role in global ecological processes.

Interactions in Marine Ecosystems. Relationships between marine species, including predation, symbiosis, and competition, and their impact on the structure and functions of marine communities.

Cycles of Matter and Flows of Energy in the Sea. The cycling of matter and flow of energy in marine ecosystems.

Threats to Marine Biodiversity. Anthropogenic and natural threats to marine biodiversity, including pollution, climate change, and overfishing.

Conservation and Management of Marine Resources. Strategies and measures for the conservation of marine biodiversity and sustainable management of marine resources.

考试形式及要求:

Формат экзамена - устное собеседование. Кандидаты должны иметь степень не ниже бакалавра в области прикладных или естественных наук, с предпочтительной специализацией в области биологии, океанографии или наук об окружающей среде. Приветствуются хорошие базовые знания математики и биологии. Программа целиком преподается на английском языке, поэтому необходимо иметь хороший уровень владения этим языком (рекомендуется не ниже B2 по общеевропейской шкале уровней владения языком или 5.5–6.5 IELTS, или 87-109 TOEFL iBT).

The exam format is an oral interview. Candidate should have a Bachelor's degree in the field of Science, Applied Sciences or Life Sciences that have a strong focus on biology, oceanography and environmental science. They all should have a strong scientific background including basic knowledge of mathematics, and biology. The program is taught in English and candidates must be proficient in this language. Recommended level is B2 CEFR or 5.5-6.5 IELTS or 87-109 TOEFL iBT.

相关文献:

Biological Science 1 & 2. D. J. Taylor, N. P. O. Green, G. W. Stout, R. Soper. Cambridge University Press; 3rd edition. 1997

Biology: the essentials, second edition. Mariëlle Hoefnagels. McGraw-Hill Education, 2016

Biology. Robert Brooker, Eric Widmaier, Linda Graham, Peter Stiling. McGraw Hill; 5th edition, 2019

Marine Biology. Function, Biodiversity, Ecology, J. S. Levinton, 6th Edition, Oxford University Press, Inc., Oxford, 2021

院系咨询人及电话

咨询人：邓老师

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Some of the Interview (Exam) Questions for Admission to the Master's Program in "Marine Biodiversity and Bioresources":

1. What is marine biodiversity and why is it important?
2. Can you talk about the variety of sea life and how it adapts?
3. Do you know any important places for sea life? Why are they special?
4. Why is having lots of different sea creatures important for the ocean?
5. What role does using genetics have in saving sea creatures?
6. How can we help protect the life in the ocean?
7. What good do areas protected by law do for sea life?
8. Why are some unique sea creatures important and what problems do they face?
9. How is the changing climate affecting the ocean's life?
10. How do plants or animals that don't belong change the ocean?
11. What can we do to fix parts of the ocean that are hurt?
12. Why are tiny sea creatures important for the ocean?
13. How does having lots of different sea life help us and the planet?
14. What's happening with the life on coral reefs and what dangers do they face?
15. How can we use the ocean's resources without hurting it?
16. What chances do you see in finding new things from the ocean?
17. Why is having different kinds of genes important for sea animals and plants?
18. How are people's actions hurting the ocean's life?
19. Can you explain how the variety of sea life came to be over time?
20. What are some ways scientists study the life in the ocean?
21. What's being done around the world to protect the ocean's life, and what do you think about it?
22. What should we think about when using the ocean's resources?
23. What problems do you think we'll face in keeping the ocean's life safe in the future?
24. Why are the ocean's resources important for people?
25. How can the ocean's treasures help the world's economy in a good way?
26. What are the good and bad points of looking after the ocean's resources?
27. How can new technology help us use the ocean's gifts wisely?
28. Why do we need to work together with other countries to look after the ocean?

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