

## OPTIONAL COURSE

### EU ENVIRONMENTAL AND CLIMATE POLICY

#### **Objective of the course**

The European Union has developed one of the world's most stringent sets of environmental policies. A complex framework of regulatory standards aiming to improve the state of the environment is in force in all major areas of environmental policy, including water, air, biodiversity and climate change. These policies are shaped, adopted and implemented through a complex governance system including various actors, different legal procedures and political practices, and multiple levels of governance. They have undoubtedly contributed to an improved state of the environment in Europe, but they simultaneously leave the EU with major challenges in the longer term.

The course aims to introduce to students the state of play of the EU's environmental and climate policies. It discusses the development and the driving forces of the EU's environmental policy, the main political dynamics in the policy cycle, the EU's policy instruments and activities in the traditional and the 'new' environmental subdomains, and the role of the EU in global environmental politics.

Approaching the EU's environmental and climate policies from the perspective of the debates on sustainability and transition governance, the course emphasizes the horizontal and cross-sectoral nature of environmental and climate policies, as well as their interactions with other policy domains (such as transport, energy or agriculture).

#### **About the Professor**

Tom Delreux is professor of political science at the 'Institut de sciences politiques Louvain-Europe' (ISPOLE) at the UCLouvain (Louvain-la-Neuve, Belgium), where he is the Research Coordinator and the Director of the Centre for European Studies. Before joining the UCLouvain in 2010, he was a Research Fellow of the Belgian National Fund for Scientific Research (FWO) at the University of Leuven, where he graduated in 2008.

His research interests include the EU's external relations, EU environmental policy, inter- and intra-institutional relations in the EU, international environmental politics, principal-agent modeling, and comparative research methods. His work has appeared in several academic journals, including *Journal of European Public Policy*, *Journal of Common Market Studies*, *International Environmental Agreements*, *Environmental Policy and Governance*, *Perspectives on European Politics and Society*, and *Journal of European Integration*.

He is also the author of four academic books: *The EU as International Environmental Negotiator* (Ashgate, 2011), which studies internal EU decision-making processes in the context of multilateral environmental negotiations; *The Foreign Policy of the European Union (2nd edition)* (co-authored with Stephan Keukeleire, Palgrave Macmillan, 2014), which presents a comprehensive analysis of the foreign policy of the EU; *Environmental Policy and Politics in the European Union* (co-authored with Sander Happaerts, Palgrave Macmillan, 2016), which provides a state-of-the-art analysis of EU environmental policy and the political dynamics that shape it; and *The Principal Agent Model and the European Union* (co-edited with Johan Adriaensen, Palgrave Macmillan, 2017), which assesses the use and limitations of the principal-agent model for studying the increasingly complex political system of the European Union.

## Course plan

### 1. Evolution and driving forces of EU environmental policy

- ❖ Stage 1: environment-related measures serving the common market
- ❖ Stage 2: expansion of environmental legislation
- ❖ Stage 3: legal basis, supranational decision-making and 1992 impetus
- ❖ Stage 4: legal, institutional and legislative consolidation
- ❖ Stage 5: green economy and better implementation of a mature policy area

#### Compulsory reading:

Delreux T., Happaerts S. (2016), *Environmental Policy and Politics in the European Union*, London, Palgrave Macmillan [chapter 1: The Evolution of EU Environmental Policy, p. 12-42].

Burns C., Eckersley P., Tobin P. (forthcoming), 'EU environmental policy in times of crisis' in *Journal of European Public Policy*, <https://doi.org/10.1080/13501763.2018.1561741>.

#### Optional reading:

Benson D., Jordan A. (2010), 'European Union environmental policy after the Lisbon Treaty: plus ça change, plus c'est la même chose?' in *Environmental Politics*, 19(3): p. 468-474.

Gravey V., Moore B. (2018), 'Full Steam Ahead or Dead in the Water? European Union Environmental Policy after the Economic Crisis' in Burns C., Tobin P., Sewerin S. (eds.), *The Impact of the Economic Crisis on European Environmental Policy*, Oxford, Oxford University Press, p. 19-42.

Haigh N. (2016), *EU environmental policy. Its journey to centre stage*, Abingdon, Routledge.

Hildebrand P. (1993), 'The European Community's Environmental Policy, 1957 to «1992»: From Incidental Measures to an International Regime?' in Judge D. (ed.), *A Green Dimension for the European Community. Political Issues and Processes*, Abingdon, Frank Cass, p. 13-44.

Knill C., Liefferink D. (2012), 'The establishment of EU environmental policy' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 13-31.

Zito A. (1999), 'Task Expansion: A Theoretical Overview' in *Environment and Planning C*, 17(1): p. 19-35.

Zito A., Burns C., Lenschow A. (2019), 'Is the trajectory of European Union environmental policy less certain?' in *Environmental Politics*, 28(2): p. 187-207.

### 2. EU environmental policy in a global and societal context

- ❖ The global context
- ❖ Environmental policy, science and risk
- ❖ Environmental policy and governance
- ❖ Environmental policy and ethics
- ❖ Environmental policy and geography

#### Compulsory reading:

Delreux T., Happaerts S. (2016), *Environmental Policy and Politics in the European Union*, London, Palgrave Macmillan [chapter 2: The Global Context, p. 43-57].

Kingston S., Heyvaert V., Čavoški A. (2017), *European Environmental Law*, New York, Cambridge University Press [chapter 1: The Foundations of EU Environmental Law: History, Aims and Context, read p. 25-47].

#### Optional reading:

Beck U. (1992), *Risk Society. Towards a New Modernity*, London, SAGE Publications.

Kohler-Koch B., Rittberger B. (2006), 'Review Article: The «Governance Turn» in EU Studies' in *Journal of Common Market Studies*, 44(s1): p. 27-49.

Soroos M. (2011), 'Global Institutions and the Environment: An Evolutionary Perspective' in Axelrod R., VanDeveer S., Downie D. (eds.), *The Global Environment: Institutions, Law, and Policy*, Washington, CQ Press, pp. 24-47.

Skjærseth J., Wettestad J. (2007), 'Is EU enlargement bad for environmental policy? Confronting gloomy expectations with evidence' in *International Environmental Agreements*, 7(3): p. 263-280.

### 3. Legal basis and principles

- ❖ Principles
- ❖ Competences and legal basis

#### Compulsory reading:

Kingston S., Heyvaert V., Čavoški A. (2017), *European Environmental Law*, New York, Cambridge University Press [chapter 3: Principles in EU Environmental Law, read p. 90-105].

#### Optional reading:

Lee M. (2014), *EU Environmental Law, Governance and Decision-Making. Second Edition*, Portland, Hart Publishing. [chapter 1: The Treaties and the Environment, read p. 1-27].

### 4. Actors and policy-making

- ❖ EU institutions: Commission, Parliament, Council, European Council, Court of Justice, agencies
- ❖ Interest groups
- ❖ Policy-making
- ❖ Implementation

#### Compulsory reading:

Schön-Quinlivan E. (2012), 'The European Commission' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 95-112.

Burns C. (2012), 'The European Parliament' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 132-151.

Wurzel R. (2012), 'Member states and the Council' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 75-94.

Adelle C., Anderson J. (2012), 'Lobby Groups' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 152-169.

Grant W. (2012), 'Business' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 170-188.

Jordan A., Tosun J. (2012), 'Policy implementation' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 247-266.

#### Optional reading:

Bocquillon P., Dobbels M. (2014), 'An elephant on the 13th floor of the Berlaymont? European Council and Commission relations in legislative agenda setting' in *Journal of European Public Policy*, 21(1): p. 20-38.

Börzel T. (2000), 'Why there is no "southern problem". On environmental leaders and laggards in the European Union' in *Journal of European Public Policy*, 7(1): p. 141-162.

Bürgin A. (2015), 'National binding renewable energy targets for 2020, but not for 2030 anymore: why the European Commission developed from a supporter to a brakeman' in *Journal of European Public Policy*, 22(5): p. 690-707.

Burns C. (2019), 'In the eye of the storm? The European Parliament, the environment and the EU's crises' in *Journal of European Integration*, 41(3): p. 311-327.

Burns C., Carter N., Worsfold N. (2012), 'Enlargement and the Environment: The Changing Behaviour of the European Parliament' in *Journal of Common Market Studies*, 50(1): p. 54-70.

Bondarouk E., Mastenbroek E. (2018), 'Reconsidering EU Compliance: Implementation performance in the field of environmental policy' in *Environmental Policy and Governance*, 28(1): p. 15-27.

Dreger J. (2014), *The European Commission's Energy and Climate Policy. A Climate for Expertise?*, Basingstoke, Palgrave Macmillan.

Fitch-Roy O., Fairbrass J., Benson D. (forthcoming), 'Ideas, coalitions and compromise: reinterpreting EU-ETS lobbying through discursive institutionalism' in *Journal of European Public Policy*, <https://doi.org/10.1080/13501763.2019.1567573>.

Krämer L. (2012), 'The European Court of Justice' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 113-131.

Martens M. (2010), 'Voice or Loyalty? The Evolution of the European Environment Agency (EEA)' in *Journal of Common Market Studies*, 48(4): p. 881-901.

Rasmussen M. (2012), 'Is the European Parliament still a policy champion for environmental interests?' in *Interest Groups & Advocacy*, 1(2): p. 239-259.

Steinebach Y., Knill C. (2017), 'Still an entrepreneur? The changing role of the European Commission in EU environmental policy-making' in *Journal of European Public Policy*, 24(3): p. 429-446.

Wurzel R., Liefferink D., Di Lullo M. (2019), 'The European Council, the Council and the Member States: changing environmental leadership dynamics in the European Union' in *Environmental Politics*, 28(2): p. 248-270.

## 5. Environmental policy instruments

- ❖ A mix of environmental policy instruments
- ❖ Regulatory instruments
- ❖ Market-based instruments
- ❖ Network-based instruments
- ❖ Planning instruments

### Compulsory reading:

Delreux T., Happaerts S. (2016), *Environmental Policy and Politics in the European Union*, London, Palgrave Macmillan [chapter 6: Environmental Policy Instruments, p. 141-162].

Lee M. (2014), *EU Environmental Law, Governance and Decision-Making. Second Edition*, Portland, Hart Publishing [chapter 4: Instruments and Governance I: Setting the Scene, p. 87-107].

### Optional reading:

Baker S., Eckerberg K. (2008), 'Economic instruments and the promotion of sustainable development', in Baker S. & Eckerberg K. (eds.), *In Pursuit of Sustainable Development. New governance practices at the sub-national level in Europe*, London & New York: Routledge, p. 50-73.

Halpern C. (2010), 'Governing Despite its Instruments? Instrumentation in EU Environmental Policy' in *West European Politics*, 33 (1): p. 39-57.

Holzinger K., Knill C., Schäfer A. (2006), 'Rhetoric or Reality? "New Governance" in EU Environmental Policy' in *European Law Journal*, 12(3): p. 403-420.

Jordan A., Benson D., Wurzel R., Zito A. (2012), 'Governing with multiple policy instruments?' in Jordan A., Adelle C. (eds.), *Environmental Policy in the EU: Actors, Institutions and Processes. Third edition*, Abingdon, Routledge, p. 309-325.

Knill C., Lenschow A. (2000), 'Do new brooms really sweep cleaner? Implementation of new instruments in EU environmental policy' in Knill C., Lenschow A. (eds.), *Implementing EU environmental policy. New directions and old problems*, Manchester, Manchester University Press, p. 251-286.

## 6. Traditional sectors of environmental policy

- ❖ Air policy
- ❖ Water policy
- ❖ Nature and biodiversity policy
- ❖ Chemicals policy
- ❖ Waste policy

### Compulsory reading:

European Commission, [http://ec.europa.eu/environment/air/index\\_en.htm](http://ec.europa.eu/environment/air/index_en.htm)

European Commission, [http://ec.europa.eu/environment/water/index\\_en.htm](http://ec.europa.eu/environment/water/index_en.htm)

European Commission, [http://ec.europa.eu/environment/nature/index\\_en.htm](http://ec.europa.eu/environment/nature/index_en.htm)

European Commission, [http://ec.europa.eu/environment/chemicals/index\\_en.htm](http://ec.europa.eu/environment/chemicals/index_en.htm)

European Commission, <http://ec.europa.eu/environment/waste/index.htm>

## 7. Climate change policy

- ❖ Origins and development
- ❖ Short-, medium- and long-term targets
- ❖ Main policy instruments: emissions trading (ETS) & policies in non-ETS sectors
- ❖ Achievements and challenges

### Compulsory reading:

Delreux T., Ohler F. (2019), 'Climate Policy in European Union Politics' in *Oxford Encyclopedia of European Union Politics*, Oxford University Press. doi:10.1093/acrefore/9780190228637.013.1097.

Oberthür S., Pallemmaerts M. (2010), 'The EU's Internal and External Climate Policies: an Historical Overview' in Oberthür S., Pallemmaerts M. (eds.), *The New Climate Politics of the European Union*, Brussels, VUB Press, p. 27-63.

Wettestad J., Jevnaker T. (2018), 'EU emissions trading. Frontrunner – and “black sheep”?' in Wettestad J., Gulbrandsen L. (eds.), *The evolution of carbon markets: design and diffusion*, Abingdon, Routledge, p. 30-52.

### Optional reading:

Delbeke J., Vis P. (eds.) (2015), *EU Climate Policy Explained*, Abingdon, Routledge.

Jordan A., van Asselt H., Berkhout F., Huitema D., Rayner T. (2012), 'Understanding the Paradoxes of Multi-level Governing: Climate Change Policy in the European Union' in *Global Environmental Politics*, 12(2): p. 43-66.

Skovgaard J. (2014), 'EU climate policy after the crisis' in *Environmental Politics*, 23(1): p. 1-17.

Wettestad J., Jevnaker T. (2016), *Rescuing EU Emissions Trading. The Climate Policy Flagship*, London, Palgrave Macmillan.

## 8. Environmental policy integration and the challenge of 'greening' other policy areas

- ❖ Environmental policy integration
- ❖ Systemic challenges
- ❖ Applications

### Compulsory reading:

Dupont C. (2016), *Climate Policy Integration into EU Energy Policy. Progress and prospects*, Abingdon, Routledge [chapter 2: From environmental to climate policy integration, p. 30-60].

### Optional reading:

Adelle C., Russel D. (2013), 'Climate Policy Integration: a Case of Déjà Vu?', in *Environmental Policy and Governance*, 23: pp. 1-12.

Jordan A., Lenschow A. (2010), 'Environmental Policy Integration: a State of the Art Review' in *Environmental Policy and Governance*, 20(3): p. 147-158.

Lenschow A. (2002), *Environmental policy integration: Greening sectoral policies in Europe*, London, Earthscan.

Nilsson M., Nilsson L. (2015), 'Towards Climate Policy Integration in the EU. Evolving Dilemmas and Policy Integration' in *Public Administration and Development*, 32(3): p. 262-277.

Nilsson L., Zamparutti T., Petersen J., Nykvist B., Ruberg P., McGuinn J. (2012), 'Understanding policy coherence: analytical framework and examples of sector-environment policy interactions in the EU' in *Environmental Policy and Governance*, 22: p. 395-423.

Runhaar H., Driessen P., Uittenbroek C. (2014), 'Towards a Systematic Framework for the Analysis of Environmental Policy Integration' in *Environmental Policy and Governance*, 24(4): p. 233-246.

Tosun J., Lang A. (2017), 'Policy integration: mapping the different concepts' in *Policy Studies*, 38(6): p. 553-570.

## 9. EU external environmental policy

- ❖ EU as actor in global environmental politics
- ❖ Venues for EU leadership
- ❖ Opening the black box of the EU
- ❖ A single voice ?
- ❖ Interactions between internal and external climate policies

### Compulsory reading:

Kelemen D. (2010), 'Globalizing European Union environmental policy' in *Journal of European Public Policy*, 17(3): p. 335-349.

Delreux T. (2018), 'Multilateral Environmental Agreements: A Key Instrument of Global Environmental Governance' in Adelle C., Biedenkopf K., Torney D. (eds.), *European Union External Environmental Policy. Rules, Regulation and Governance Beyond Borders*, London, Palgrave Macmillan, p. 19-38.

Bäckstrand K., Elgström O. (2013), 'The EU's role in climate change negotiations: from leader to "leadicator"' in *Journal of European Public Policy*, 20(10): p. 1369-1386.

### Optional reading:

Afionis S. (2017), *The European Union in International Climate Change Negotiations*, Abingdon, Routledge.

Delreux T. (2011), *The EU as International Environmental Negotiator*, Surrey, Ashgate.

Delreux T. (2014), 'EU actorness, cohesiveness and effectiveness in environmental affairs' in *Journal of European Public Policy*, 21(7): p. 1017-1032.

Dupont C., Oberthür S., Biedenkopf K. (2018), 'Climate Change: Adapting to Evolving Internal and External Dynamics' in Adelle C., Biedenkopf K., Torney D. (eds.), *European Union External Environmental Policy. Rules, Regulation and Governance Beyond Borders*, London, Palgrave Macmillan, p. 105-124.

Groen L., Niemann A., Oberthür S. (2012), 'The EU as a Global Leader? The Copenhagen and Cancun UN Climate Change Negotiations' in *Journal of Contemporary European Research*, 8(2): p. 173-191.

Oberthür S. (2011), 'The European Union's Performance in the International Climate Change Regime' in *Journal of European Integration*, 33(6): p. 667-682.

Oberthür S. (2016), 'Where to go from Paris? The European Union in climate geopolitics' in *Global Affairs*, 2(2): p. 119-130.

Oberthür S., Groen L. (2018), 'Explaining goal achievement in international negotiations: the EU and the Paris Agreement on climate change' in *Journal of European Public Policy*, 25(5): p. 708-727.

Parker C., Karlsson C., Hjerpe M. (2017), 'Assessing the European Union's global climate change leadership: from Copenhagen to the Paris Agreement' in *Journal of European Integration*, 39(2): p. 239-252.

Torney D., Cross M. (2018), 'Environmental and Climate Diplomacy: Building Coalitions Through Persuasion' in Adelle C., Biedenkopf K., Torney D. (eds.), *European Union External Environmental Policy. Rules, Regulation and Governance Beyond Borders*, London, Palgrave Macmillan, p. 39-58.

Vogler J. (2011), 'The European Union as a global environmental policy actor' in Wurzel R., Connelly J. (eds.), *The European Union as a Leader in International Climate Change Politics*, Abingdon, Routledge, p. 21-37.

Wurzel R., Connelly J. (eds.) (2017), *The European Union in International Climate Change Politics. Still Taking the Lead?*, Abingdon, Routledge.

## Methodology, assignments & assessment

### Methodology

The course will be taught by means of **lectures** with active participation of the students.

Students are expected to give two **oral presentations**:

- one on a current topic in the field of EU environmental policy that has recent received media attention;
- another one on environmental policy integration and the 'greening' of other EU policies.

Students have to write a **paper** on the topic of their second presentation, i.e. the 'greening' of other EU policies.

### **Assignment & assessment**

- **Presentation on current topic (15% of the final grade):** In groups of two students (or in case of an odd number of students: one group of three students), students will have 15-20 minutes to deliver an oral presentation on a current issue in the field of EU environmental policy that has received media attention during the months of the course. A smart use of slides is encouraged. The aim of this presentation should be to give the course participants insights on ongoing policy developments in the field of EU environmental policy. Each presentation will be followed by a short Q&A session with the course participants.

Each group has to choose an article, recently published in a newspaper or an online news source on EU politics (e.g. Euractiv.com; Politico.eu; EUObserver.com; Agence Europe). That article should deal with a current event in the field of EU environmental, climate or sustainable development policy (e.g. adoption of legislation or key step in a policy-making process; controversy on policy-making or implementation; reaction of EU to events). During the presentation, each group is expected to

- introduce the article to the professor and their fellow students;
- contextualize the current event (what is the historical background within which the event should be understood?);
- discuss the main challenges for the EU and/or actors within the EU (political actors, societal actors, economic actors, citizens, etc);
- outline the main positions of the key actors;
- present their own critical assessment on the opportunities and challenges in the policy-making process;
- and present their prospects on the next steps (what could we expect to happen?).

Students will be informed about the composition of the groups and about the date for their presentation at the beginning of the semester. At least 14 days before the presentation, each group is expected to propose its topic (as well as the newspaper article that will serve as the starting point for the presentation) to [thijs.vandenbussche@coleurope.eu](mailto:thijs.vandenbussche@coleurope.eu). The academic assistant will verify whether the proposed topic corresponds to the requirements and whether the topic has not yet been chosen by another group of students. At least 24 hours before their presentation, students are required to send an outline of their presentation to [thijs.vandenbussche@coleurope.eu](mailto:thijs.vandenbussche@coleurope.eu). All students of each group will receive the same grade for the presentation.

- **Presentation and paper on environmental policy integration and the 'greening' of another policy area:** In groups of two students (or in case of an odd number of students: one group of three students), students have to work on the question of how environmental concerns are integrated in non-environmental policies of the EU (i.e. the 'greening' of other policy areas). Importantly, the groups for this presentation and paper should be composed differently than the groups of the presentation on the current topic. All students of each group will receive the same grade for the presentation and the same grade for the paper. Students have to present their findings during an oral presentation and in a written paper:
  - **Presentation (10% of the final grade):** each group will have 20 minutes to deliver an oral presentation on how the EU attempts to 'green' non-environmental policy areas. These presentations will take place during the last sessions of the course. At least 24 hours before their presentation, students are required to send an outline of their presentation to [thijs.vandenbussche@coleurope.eu](mailto:thijs.vandenbussche@coleurope.eu). A clever use of slides is encouraged. Each presentation will be followed by a Q&A session with the fellow students. The feedback received during that Q&A session can be used by the students for finalizing their paper on the same topic (see below).
  - **Paper (25% of the final grade):** each group will write a paper of 3000 to 4000 words. All end/footnotes must be included in the word count, but annexes, cover page and the bibliography are excluded. The paper should include a cover page, with the word count clearly indicated on the cover page. For every 100 additional words, or part thereof, below the minimum or beyond the maximum limit of words, 1 point will be deducted from the final mark of the paper. Papers, saved in Word format, have to be submitted by 17/04/2020 at 12h00 to

thijs.vandenbussche@coleurope.eu. For every 24 hours of delay, or part thereof, after the specified submission deadline, 2 points will be deducted from the final mark of the paper. A paper already submitted cannot be resubmitted in a different version after the deadline. Please refer to the Guide for Referencing with regard to the required referencing style, word count, etc. The plagiarism rules of the Study Regulations apply.

Groups have to choose one policy field from the following list: agriculture; cohesion policy; development; employment; energy; enterprise; economics; fisheries; forests; European Semester; internal market; research; trade and external relations; transport (see [http://ec.europa.eu/dgs/environment/index\\_en.htm](http://ec.europa.eu/dgs/environment/index_en.htm) > 'Policies' > 'Greening other areas'). One policy field can only be taken by one group of students and they are to be agreed upon with the academic assistant in charge of the course in January.

The presentation and the paper should address the following questions:

- what is the state of the environment affected by developments in the chosen policy area?
  - what are the main initiatives and policy instruments the EU has adopted/is adopting to 'green' the chosen policy area?
  - how do you evaluate the main challenges and obstacles the EU is facing in 'greening' the chosen policy area?
  - what are the current achievements in the 'greening' of the chosen policy area and how can the (lack of) achievements be explained?
  - what are the prospects?
- **The final written examination (50% of the final grade)** will take place in May or June with questions on any subject covered in the course. The exam will consist of 2 or 3 concepts that have to be explained and 2 or 3 essay questions. The exam will take 3 hours.

#### **Assessment at second attempt**

During the second examination session the course is assessed 100% on the basis of a written resit exam.