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Course Syllabus:

PhD Seminar: Advanced Seminar on
Skilled Immigration and International Economic Dynamics

Introduction and Objectives

This doctoral seminar equips PhD candidates in Economics with the theoretical, empirical, and policy-analysis tools to conduct original research on skilled migration, with a focus on Iran's brain drain crisis and its global implications. Grounded in cutting-edge debates in international economics, the course challenges students to interrogate how structural forces—such as labor market mismatches, sanctions, and disparities in the Economic Complexity Index (ECI)—drive skilled migration, while producing scholarship that bridges academic and policy discourse.

Course Focus:

The seminar centers on three pillars:

- Advanced Theory: Critically engaging with migration decision models (e.g., Alasalmi's job-to-job migration framework) and brain drain/gain hypotheses.
- Empirical Rigor: Analyzing primary datasets (OECD, World Bank, Iranian labor surveys) to map ECI trends, migration flows, and sectoral impacts.
- Policy Innovation: Designing context-specific reforms for Iran's brain drain crisis, informed by global best practices and economic complexity theory.

Key Objectives:

- Master Theoretical Frameworks
    - Deconstruct the assumptions and limitations of neoclassical migration models, self-selection theory, and brain drain tax proposals.
    - Apply Alasalmi's match quality framework to Iran's underemployment of STEM graduates in low-ECI sectors.
- Conduct Original Empirical Research
    - Replicate and extend regression analyses from seminal texts (e.g., Bahar et al. 2020) using causal inference methods (e.g., IV, diff-in-diff).
    - Produce publishable-quality findings on Iran's ECI stagnation and its link to skilled emigration.
- Design Policy Interventions
    - Propose ECI-driven reforms (e.g., R&D incentives, export diversification) to mitigate brain drain, grounded in Iran's institutional constraints.
    - Critique retention strategies (e.g., Iran's National Talent Plan) through the lens of economic complexity and human capital theory.

PhD-Level Expectations:

- **Research Outputs:** Final papers must demonstrate originality suitable for submission to journals such as *World Development* or Journal of *International Economics*.
- **Peer Engagement:** Provide rigorous, actionable feedback on classmates' work, emulating academic peer-review standards.
- **Policy Impact:** Frame findings as actionable recommendations for stakeholders (e.g., Iran's Ministry of Labor, OECD policymakers).

Prerequisites

To succeed in this seminar, students must have foundational knowledge in the following areas, ensured through prior coursework or equivalent preparation:

- **Advanced Macroeconomics**
  - *Relevance:* Understanding fiscal externalities, growth models, and labor market dynamics is critical for analyzing brain drain's macroeconomic impacts.

- **Advanced Microeconomics**
  - *Relevance: Required for evaluating migration decision models (e.g., Borjas, NELM) and match quality theory (Alasalmi).*
- **International Trade and Finance**
  - *Relevance:* Provides context for global labor mobility, remittances, and the role of sanctions in shaping Iran's economic complexity.
- **Econometrics or Applied Data Analysis**
  - *Relevance:* Essential for interpreting ECI datasets, regression analyses in readings, and conducting empirical workshops.

Weekly Schedule

Week 1: Introduction to Brain Drain in International Economics

- **Topics:**
  - Key definitions: Brain drain vs. gain vs. circulation.
  - Historical trends in South-North migration.
  - Iran's Brain Drain Crisis: Overview of statistics, ECI stagnation, and socio-political context.
- **Readings:**
  - Docquier and Rapoport (2012), *Globalization, Brain Drain, and Development*.
  - Statistical Center of Iran (2023), *Emigration of Tertiary-Educated Iranians*.
- **Activity:** Introductry debate: *Is brain drain inevitable for developing economies with low economic complexity?*

Week 2: Theoretical Frameworks I – Migration Decision Models

- **Topics:**
  - Neoclassical labor migration theory (Borjas, Sjaastad).
  - Self-selection and Match Quality: Juho Alasalmi's job-to-job migration framework.
  - New Economics of Labor Migration (NELM).
- **Readings:**
  - Borjas (1989), *Economic Theory and International Migration*.
  - Alasalmi (2023), *Self-selection of Job-to-job Migrants on Match Quality* (excerpts).
- **Case Study:** Iranian engineers migrating to Germany's high-complexity automotive sector.
- **Discussion:** *Do Iranian migrants prioritize higher wages or better job matches in high-ECI economies?*

Week 3: Theoretical Frameworks II – Brain Drain Economics

- **Topics:**
  - Bhagwati's brain drain tax vs. Mountford's "brain gain" hypothesis.
  - **Economic Complexity Index (ECI):** Linkages between ECI disparities, skill demand, and labor market mismatches (Hausmann and Hidalgo).
  - Fiscal externalities and loss of innovation capacity.
- **Readings:**

    - Beine et al. (2001), *Brain Drain and Economic Growth: Theory and Evidence*.
    - Hausmann et al. (2013), *The Atlas of Economic Complexity* (Ch. 2).
- **Activity:** Simulate (theoretically/model) how a 10% ECI increase could impact job creation for engineers.

Week 4: Empirical Evidence and Global Trends

- **Topics:**
    - OECD/World Bank data on skilled migration.
    - Sector-specific impacts: Healthcare, tech, academia.
    - **ECI-Migration Correlation:** Structural gaps between high/low ECI countries.
- **Readings:**
    - Clemens (2015), *Skill Flow: A Fundamental Reconsideration of Skilled-Worker Mobility*.
    - Bahar et al. (2020), *Economic Complexity and Migration: Evidence from 125 Countries*.
- **Activities:**
    - *ECI-Migration Workshop*: Analyze World Bank ECI data vs. OECD skilled migration flows.
    - Compare *Iran's ECI* (ranked 94th in 2023) with *Germany* (ranked 5th in 2023).

Week 5: Iran's Brain Drain – Drivers and Labor Market Mismatches

- **Topics:**
    - **ECI as a Structural Push Factor:** Iran's reliance on low-complexity sectors (e.g., oil) exacerbating underemployment of STEM graduates.
    - Pull factors: OECD labor markets, skill-based visas, and high-ECI job opportunities.
    - Case Study: Underemployed Iranian Artificial Intelligence (AI) graduates migrating to Canada's tech sector.
- **Readings:**
    - Hassanpour (2020), *Iran's Skilled Labor Exodus: A Mismatch Crisis*.
    - Jahanmir and Hashim (2022), *Economic Complexity and Skill Mismatch in Iran's Labor Market*.
- **Activity:** Map Iran's ECI trends (2000–2023) against emigration rates of engineers and doctors.

Week 6: Sectoral Case Study – Healthcare and Academia

- **Topics:**
    - "Medical desertification" in Iran post-COVID-19.
    - Loss of university faculty to high-ECI Western institutions.
- **Readings:**
    - Khajavi (2019), *Iran's Medical Brain Drain: Causes and Consequences*.
    - UNESCO (2022), *Iranian PhD Graduates in OECD Countries*.
- **Guest Lecture:** Returnee Iranian academic on challenges in retaining talent amid ECI stagnation.

Week 7: Remittances, Diaspora Networks and Virtual Brain Drain

- **Topics:**
    - Financial vs. social remittances.
    - Digital nomads: Iranian software developers working remotely for EU firms.
- **Readings:**
    - Levitt (1998), *Social Remittances: Migration Driven Local-Level Forms of Cultural Diffusion*.
    - Alasalmi (2023), *Match Quality in Remote Work* (supplementary analysis).
- **Discussion:** *Can virtual brain drain compensate for low domestic economic complexity?*

Week 8: Midterm Presentations

- **Activity:** Students present research proposals (e.g., *How do sanctions impact Iran's ECI and STEM emigration?*).

Week 9: Policy Responses I – Iran's Retention Strategies

- **Topics:**
    - Addressing job mismatch: Aligning education with high-complexity sectors.
    - **ECI-Driven Solutions:** Diversifying export portfolios (tech, pharmaceuticals) to create high-skill jobs.
- **Readings:**
    - Iranian Vice Presidency for Science and Technology (2023), *National Talent Retention Plan*.
    - Hausmann (2014), *Economic Complexity and Development Policy*.
- **Debate:** *Can improving economic complexity reduce brain drain more effectively than diaspora engagement?*

Week 10: Policy Responses II – Global Best Practices

- **Topics:**
    - India's "Reverse Brain Drain" tech policies.
    - WHO's ethical recruitment guidelines for health workers.

- **Readings:**
  - Chacko (2007), *From Brain Drain to Brain Gain: Reverse Migration to India*.
  - WHO (2010), *Global Code of Practice on International Health Worker Recruitment*.

Week 11: Ethical Debates and Human Rights

- **Topics:**
  - Right to emigrate vs. source countries' right to development.
  - Non-economic factors: Political repression, cultural freedom.
- **Readings:**
  - Oberman (2013), *Can Brain Drain Justify Immigration Restrictions?*
  - Carens (1987), *Aliens and Citizens: The Case for Open Borders*.

Week 12: Brain Drain in the Digital Age

- **Topics:**
  - **ECI in the Tech Era:** Can remote work mitigate low ECI? Case study: Iranian AI startups vs. sanctions.
  - Cryptocurrency and bypassing sanctions for remote work.
- **Activity:** Scenario-building – *Iran's economy in 2040: Brain drain or circulation under ECI reforms?*

Week 13: Student-Led Workshops

- **Activity:** Peer feedback on final papers, focusing on ECI-driven policy solutions to job mismatch.

Week 14: Guest Lecture

- **Topic:** *ECI, Job Matching, and Iranian Migrants in the EU*.

Week 15: Final Presentations

- **Activity:** Students present research papers (e.g., *Sanctions, ECI, and Iran's IT Sector Brain Drain*).

Week 16: Conclusion and Policy Synthesis

- **Discussion:** *Can brain drain ever be "solved," or is it a symptom of systemic ECI disparities?*
- **Activity:** Drafting a policy memo to Iran's Ministry of Labor: *Proposing ECI-enhancing reforms (e.g., R&D incentives, export diversification).*

Assessment

- **Participation (20%):** Engagement in debates, workshops, and ECI data activities.
- **Midterm Presentation (20%):** Proposal integrating ECI and labor market mismatch concepts.
- **Final Research Paper (40%):** Focused on Iran, must address ECI's role in brain drain (e.g., *ECI stagnation vs. skilled emigration in Iran's healthcare sector*).
- **Peer Review and Workshops (20%).**

Communication with Students

- **Email Protocol:**
  - **Address:** elahi.mofid@gmail.com
  - **Subject Line:** Always include **"SEM032"** and a brief topic (e.g., *SEM032: Query on ECI Workshop*).
  - **Response Time:** Instructor will reply within 72 hours *(including weekends).*
- **Office Hours:**
  - **When:** Sundays, 1:00 PM – 2:30 PM (in-person).
  - **Purpose:** Discuss research proposals, clarify concepts.
  - **Booking:** Schedule appointments via email at least 24 hours in advance.