



## Course Outline

### *EE 482 Public Policy and Industrialization*

Semester 2/2020

<b>Number of credits:</b>	3 credits
<b>Lecture Time:</b>	Wednesday and Friday, 14:00 – 15:30
<b>Lecture Venue:</b>	Online
<b>Instructor:</b>	Asst. Prof. Dr. Nattapong Puttanapong
<b>Office:</b>	Room No. 3 (4 <sup>th</sup> floor), Faculty of Economics
<b>Email:</b>	nattapong@econ.tu.ac.th
<b>Mid-term Exam:</b>	Wednesday, March 10, 2021; 12.00 (noon) - 2.00 PM
<b>Final Exam (Required):</b>	Wednesday, June 2, 2021; 1.30 - 4.30 PM

### **Course Description**

The course aims at enriching students' capabilities of both qualitative and quantitative skills. The course covers the topics of industrial development strategy theories, the evolution of industrial policy in Thailand and other Asian countries and the role of government in the industrial sector. Also quantitative techniques concentrating on data analysis are introduced in order to enhance students' hand-on experiences of conducting the in-depth research related to industrial economics.

Prerequisite: EE 312

Moodle Code:

## Course Objectives

(a) Students are expected to understand the objectives, concepts and theories of industrialization and industrial policy

(b) Students should be able to apply the theoretical concepts in order to understand the process of industrial development in Thailand and other countries.

## Textbook

There is no textbook for the course. Readings are indicated in the lecture schedule and provided on Moodle. The readings and the weekly lecture represent the contents of the course.

### Expected Learning Outcomes:

#### 1. Morality and Ethics

Applicability	Learning Goals
●	1.1 Students demonstrate integrity.
●	1.2 Students prioritize social and public benefits over personal ones.
●	1.3 Students are punctual and comply with the code of conduct of the institution and society at large.
●	1.4 Students are responsible and accountable to society, the nation, and the subject of economics.
○	1.5 Students realize the cultural and environmental value of the sustainable society.

#### 2. Knowledge

Applicability	Learning Goals
●	2.1 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.2 Students know and understand Thai and global economic structure, and the importance of major international economic events.
○	2.3 Students know and understand instruments of economic analysis.
●	2.4 Students know and understand applied fields in economics, including monetary, public, international, business, natural resource and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.
○	2.5 Students are informed about related fields including sociology, business administration, education, law policy, and science.

### 3. Intellectual Development

Applicability	Learning Goals
●	3.1 Students have developed individual critical thinking.
●	3.2 Students are sufficiently trained in research skills.
●	3.3 Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand causes of current economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.

### 4. Interpersonal Skills and Responsibilities

Applicability	Learning Goals
●	4.1 Students are responsible for assigned tasks and work in groups effectively.
●	4.2 Students have problem-solving skills.
○	4.3 Students show leadership skills and team spirit.
●	4.4 Students are always improving themselves.
○	4.5 Students have good interpersonal skills, adapting and working under different conditions.

### 5. Quantitative Analysis, Communication and Information Technology

Applicability	Learning Goals
●	5.1 Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.
●	5.2 Students communicate effectively and select appropriate presentation methods.
●	5.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.

## Lecture Schedule

(This schedule is subject to change. Please see Moodle for changes to dates, etc.)

Week	Date	Topics and Readings
1	January 20, 2021 January 22, 2021	<p><b>Brief History of World Development and Industrialization</b></p> <p>Acemoglu, D., &amp; Robinson, J.A. (2013). <i>Why Nations Fail</i>. London: Profile Book.</p> <p>Baldwin, R. (2011). Trade and industrialization after globalization's 2<sup>nd</sup> unbundling: How building and joining a supply chain are different and why it matters. NBER Working Paper No. 17716.</p>
2-3	January 27, 2021 January 29, 2021 February 3, 2021 February 5, 2021	<p><b>Industrialization in Japan, South Korea and Taiwan</b></p> <p><u>Japan</u></p> <p>Fukao, K., Makino, T. &amp; Settsu, T. (2020). Structural change, capital deepening, and TFP growth in Japan: 1885–1970. <i>Social Science Japan Journal</i>, 23(2), 185-204.</p> <p>Grabowiecki, J. (2006). Keiretsu groups: Their Role in the Japanese economy and a reference point (or a paradigm). IDE-JETRO Visiting Research Fellow Monograph Series NO. 413.</p> <p>Horiuchi, K. &amp; Otaki, M. (2017). <i>Dr. Osamu Shimomura's legacy and the postwar Japanese economy</i>. SpringerBriefs in Economics Development - Bank of Japan Research Series. Singapore: Springer.</p> <p>Kimura, F. (2009). Japan's model of economic development. United Nations University - World Institute for Development Economic Research. Research Paper No. 2009/22.</p> <p>Kimura, F. (2001). Subcontracting and the performance of small and medium firms in Japan. World Bank - Paper Stock No. 37192.</p> <p>OECD. (2019). <i>The Economic Survey of Japan</i>. Economic and Development Review Committee (EDRC). Paris: OECD.</p> <p>Saxonhouse, G.R. (1998). Structural change and Japanese economic history will the 21st century be different? <i>American Economic Review</i>, 88(2), 408-411.</p> <p>Shigeru, O.T. (2007). Post-war development of the Japanese economy, Lecture Note for Students in the EDP&amp;M Program, GSID - Nagoya University.</p> <p>Subrahmanya, M.H.B. (2006). SMEs and subcontracting in Japanese manufacturing: does globalisation make a difference? <i>International Journal of Globalisation and Small Business</i>, 1(4), 340-355.</p>

		<p>Wattanapruttipaisan, T. (2002). SME subcontracting as a bridgehead to competitiveness: An assessment of supply-side capabilities and demand-side requirements. <i>Asia-Pacific Development Journal</i>, 9(1). 65-87.</p> <p><u>Korea</u></p> <p>Chun, S.H. (2018). <i>The Economic Development of South Korea: From Poverty to a Modern Industrial State</i>. New York: Routledge.</p> <p>Fuller, D. (2007). Globalization for nation building: Taiwan's industrial and technology policies for the high-technology sectors. <i>Journal of Interdisciplinary Economics</i>, 18(23), 203-224.</p> <p>OECD. (2020). <i>The Economic Survey of Korea</i>. Economic and Development Review Committee (EDRC). Paris: OECD.</p> <p>Ra, Y.S., &amp; Shim, K.W. (2009). The Korean case study: Past experience and new trends in training policies. World Bank SP Discussion Paper No. 0931.</p> <p>Yeon, J.I., Pyka, A. &amp; Kim, T-Y. (2016) Structural shift and increasing variety in Korea, 1960-2010: Empirical evidence of the economic development model by the creation of new sectors. Hohenheim Discussion Papers in Business, Economics and Social Sciences, No. 13-2016, Universität Hohenheim, Fakultät Wirtschafts- und Sozialwissenschaften, Stuttgart, <a href="http://nbn-resolving.de/urn:nbn:de:bsz:100-opus-12764/">http://nbn-resolving.de/urn:nbn:de:bsz:100-opus-12764/</a></p> <p><u>Taiwan</u></p> <p>Cheng, T.J. (2001). Transforming Taiwan's economic structure in the 20th century. <i>The China Quarterly</i>. 19-36.</p> <p>Chou, T.C. (1985). The pattern and strategy of industrialization in Taiwan: Specialization and offsetting Policy. <i>The Developing Economies</i>, 23(2), 138-157.</p> <p>Chu, W.W. (2019). How Taiwan managed to grow: Structural transformation and industrial policy. In Lin J. &amp; Monga C. (Eds.) <i>The Oxford Handbook of Structural Transformation</i>, Oxford: Oxford University Press.</p> <p>Li, K.T. (1995). <i>The Evolution of Policy Behind Taiwan's Development Success</i>. 2nd Edition. Singapore: World Scientific.</p> <p>Tsai, P.L. (1999) Explaining Taiwan's Economic Miracle: Are the Revisionists Right? <i>Agenda</i>, 6(1). 69-82.</p>
4	February 10, 2021 February 12, 2021	<p><b>Basic Concepts of Industry</b></p> <p>Chang, H-J. Industrial Policy: Can we go beyond an unproductive confrontation? Paper for the Annual World Bank Conference on Development Economics.</p>

		<p><b>The What and the Why of Industrial Policy</b></p> <p>Rodrik, D. (2004). Industrial Policy for the 21<sup>st</sup> Century, paper from JFK School of Government, Harvard University.</p> <p>Berthélemy, J. &amp; Chauvin. (2000). Structural changes in Asia and growth prospects after the crisis. CEPII Working Paper N°2000-09.</p>
5	February 17, 2021 February 19, 2021	<p><b>Introduction to Input-Output Analysis</b></p> <p>United Nations - Statistical Commission. (2018). Handbook on Supply, Use and Input Output Tables with Extensions and Applications (<a href="https://unstats.un.org/unsd/nationalaccount/docs/SUT_IOT_HB_wc.pdf">https://unstats.un.org/unsd/nationalaccount/docs/SUT_IOT_HB_wc.pdf</a>)</p>
6	February 24, 2021 March 3, 2021	<p><b>Introduction to Global Input-Output Analysis</b></p> <p>Timmer, M., et. al. (2012). The World Input-Output Database (WIOD): Contents, Sources and Methods, the European Commission. (<a href="http://www.wiod.org/publications/memoabstract.htm?id=10">http://www.wiod.org/publications/memoabstract.htm?id=10</a>)</p> <p>Los, B., M.P. Timmer, &amp; de Vries, G.J. (2015), How global are Global Value Chains? A new approach to measure international fragmentation. <i>Journal of Regional Science</i>, 55(1), 66-92.</p>
7	March 5, 2021	<p><b>Global Production Networks and Value Chains</b></p> <p>Xing, Y., &amp; Delert, N. (2010). How the iPhone widens the United States trade deficit with the People’s Republic of China. ADBI Working Paper 257.</p> <p>Koopman, R., Wang, Z., &amp; Wei, S.J. (2014). Tracing value-added and Double counting in gross exports. <i>American Economic Review</i>, 104(2), 459-94. (<a href="https://www.nber.org/papers/w18579">https://www.nber.org/papers/w18579</a>)</p>
8	<p><b>MIDTERM EXAM</b></p> <p><b>Wednesday, March 10, 2021; 12.00 (noon) 2.00 PM</b></p>	
9	March 17, 2021 March 19, 2021	<p><b>Network Analysis and Economic Complexity Index</b></p> <p>del Río-Chanona R.M., &amp; Grujić J, Jeldtoft Jensen, H. (2017). Trends of the world Input and Output network of global trade. <i>PLoS ONE</i>, 12(1): e0170817. (<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5270329/pdf/pone.0170817.pdf">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5270329/pdf/pone.0170817.pdf</a>)</p> <p>Hidalgo, C, A, &amp; Hausmann, R. (2009). The building blocks of economic complexity. <i>PNAS</i>. (<a href="https://www.pnas.org/content/pnas/106/26/10570.full.pdf">https://www.pnas.org/content/pnas/106/26/10570.full.pdf</a>)</p>
10-11	March 24, 2021 March 26, 2021 March 31, 2021	<p><b>Industrialization and Structural Transformation</b></p> <p>Dabla-Norris, E., Thomas, A., Garcia-Verdu, R., &amp; Chen, Y. (2013). Benchmarking structural transformation across the world. IMF Working Paper. WP/13/176.</p>

	April 2, 2021	<p>Kotler, P., Jatusripitak, S., &amp; Maesincee, S. (1997). <i>The Marketing of Nations</i>. New York: The Free Press.</p> <p>Szirmai, A. (2012). Industrialisation as an engine of growth in developing countries, 1950–2005. <i>Structural Change and Economic Dynamics</i>, 23(4). 406-420.</p> <p>Romano, L. &amp; Traù, F. (2017). The nature of industrial development and the speed of structural change. <i>Structural Change and Economic Dynamics</i>, 42, 26-37.</p> <p>Tarashev, A.M., Usova, A., &amp; Turygina, V. (2017). Structural changes in economic growth models. <i>IFAC PapersOnLine</i>, 50-1, 4875-4880.</p> <p>UNCTAD. (2017). <i>Services and Structural Transformation for Development</i>. Geneva: United Nations.</p>
<b>12</b>	April 7, 2021 April 9, 2021	<p><b>Thailand: Industrialization and Economic Catch-Up</b></p> <p>Asian Development Bank. (2015). <i>Thailand: Industrialization and Economic Catch-Up</i>. Manila: Asian Development Bank.</p>
<b>13</b>	April 21, 2021 April 23, 2021	<p><b>Future of Industrial Policies</b></p> <p>Asian Development Bank Institute. (2018). <i>Kuznets Beyond Kuznets: Structural Transformation and Income Inequality in the Era of Globalization in Asia</i>. Tokyo: ADBI.</p> <p>Briones, R. &amp; Felipe, J. (2013). Agriculture and structural transformation in developing Asia: Review and outlook, ADB Economics Working Paper Series, No. 363, Asian Development Bank (ADB), Manila, <a href="http://hdl.handle.net/11540/2305">http://hdl.handle.net/11540/2305</a>.</p> <p>Brookings Institute, (2018). <i>Foresight Africa: Top priorities for the continent in 2018</i>. <a href="https://www.brookings.edu/research/rethinking-africas-structural-transformation/">https://www.brookings.edu/research/rethinking-africas-structural-transformation/</a></p> <p>Cadot, O., de Melo, J., Plane, J., Wagner, L., &amp; Woldemichael, M.T. (2016). Industrialisation and structural change: Can Sub-Saharan Africa develop without factories? Fondation Pour les études et Recherches sur le Développement International - Working Paper 143.</p> <p>Gomulka, S. (2017). The global economy in the 21st century: Will the trends of the 20th century continue? <i>Central European Economic Journal</i>, 2(49). 62-72.</p> <p>Islam, S.N., &amp; Iversen, K. (2018). From “structural change” to “transformative change: Rationale and implications. DESA Working Paper No. 155 - United Nations.</p> <p>Lee, J.W., &amp; McKibbin, W. (2014). Service sector productivity and economic growth in Asia. ADBI Working Paper 490. Tokyo: Asian Development Bank Institute.</p>

		<p>Lin, J., &amp; H.-J. Chang. (2009). Should industrial policy in developing countries conform to comparative advantage or defy it? <i>Development Policy Review</i>, 27(5), 483-502.</p> <p>Mijiyawa, A.G., (2017). Drivers of structural transformation: The case of the manufacturing sector in Africa. <i>World Development</i>, 99, 141-159.</p> <p>Nobuharu Y. &amp; Chandrasekhar, C.P. (2017). Introduction: Structural change in Asia: Can the services sector lead growth?, <i>The Japanese Political Economy</i>, 43(1-4),1-8. DOI: 10.1080/2329194X.2019.1565942</p> <p>United Nations. (2007). <i>Industrial Development for the 21st Century: Sustainable Development Perspectives</i>. New York: United Nations.</p> <p>United Nations. (2016). <i>Structural Transformation for Inclusive and Sustained Growth - Trade and Development Report 2016</i>. Geneva: United Nations.</p>
<b>14</b>	<p>April 28, 2021</p> <p>April 30, 2021</p>	<p><b>Industry 4.0</b></p> <p>Bloem, J. et al. (2014) <i>The Fourth Industrial Revolution: Things to Tighten the Links between IT and OT</i>. VINT Research Report, Sogeti.</p>
<b>15</b>	<p>May 5, 2021</p> <p>May 7, 2021</p>	<b>Student Presentations</b>
<b>16</b>	<p>May 12, 2021</p> <p>May 14, 2021</p>	<b>Student Presentations</b>
<p><b>FINAL EXAM</b></p> <p><b>Wednesday, June 2, 2021; 1.30 - 4.30 PM</b></p>		

### Assessment

Class participation	10 %
Presentation	5 %
Joint paper	25 %
Mid-term exam	25 %
Final exam	35 %

### Class Participation (and attendance)

Students should read before class and should bring a copy of the reading to the class. Students are encouraged to actively participate in the discussion by contributing answers, comments and questions. Such participation will be graded and will account for 10% of your final mark. *If a student is absent from more than 2 classes, marks will be deducted from her or his participation mark.*

### **Joint Essay and Presentation**

Each group will consist of 3 students. Each group will research a topic and give a presentation of findings in November. After receiving comments from the instructor at the end of the presentation, the group will revise and finalize the paper and submit it within one week after your presentation. Details about the topics and the format of the paper will be provided on Moodle. A hard copy should be submitted in class and the soft copy is required to submit to my email address.

### **Remarks:**

- ◆ **Mid-Term Examination**                      **Wednesday, March 10, 2021; 12.00 (noon) 2.00 PM**
- ◆ **Final Examination**                        **Wednesday, June 2, 2021; 1.30 - 4.30 PM**