

AOL Report Information and Telecommunication Technology Program Assessment (2017)

The Information and Telecommunication Technology Program (ITTP) offers a customized master's and doctoral degree program for government officials, employees of public institutions or senior-level researchers at national research centers working in the IT fields of emerging countries. The program focuses on transferring advanced technologies and business strategies of Korea to the global IT leaders of the next generation. Research areas include IT Technology Management and Policy, Software Engineering, Financial and Accounting Management in the IT industry, Research Design and Methods for Engineers, and Key Technologies for 4th Industrial Revolution.

- Total Course: 31 (Spring, 2017: 13, Fall, 2017: 16)
- Number of Graduates: 16 (Master: 16, Ph.D: 0)
- Total Enrollment: Spring 36/ Fall 33 (Master: 23/16, Ph.D: 13/17)
- Sample: 5~9 (15% of 16 = 2.4)
- Assessment Course:

Learning Goal 1	L11	ITP 620 Introduction to IT Technology Management/Policy in Korea
	L12	ITP 541 Korean History and Culture
Learning Goal 2	L21	ITP 620 Introduction to IT Technology Management/Policy in Korea
	L22	
Learning Goal 3	L31	ITP 753 IT Technology Management and Policy
	L32	
Learning Goal 4	L41	ITP 705 Research Design and Methods for Engineers
	L42	

Overview of Assessment

ITTP Assessment: Learning Goal 1 Global Understanding	
<i>Our graduates learn to view the world in various aspects</i>	
Learning Objectives	Method and Sample
(L11) Our graduates understand global business issues and relate current and potential upcoming issues to emerging technology development in their country	Course-embedded survey ITP 620 (N=8)
(L12) Our graduates have multi-cultural understanding to make new global relations and actively cooperate with various people from all over the world	Course-embedded survey ITP 541 (N=5)
- Survey conducted to evaluate performance levels of students * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations)	

ITTP Assessment: Learning Goal 2 Leadership and Innovation Management	
<i>Our graduates use team building and high-performance management behaviors to lead a government task successfully in competitive environment</i>	
Learning Objectives	Method and Sample
(L21) Our graduates have high-performance leadership skill for effectively managing members in their government to deal with organizational challenges	Course-embedded survey ITP 620 (N=8)
(L22) Our graduates have thorough understanding of fundamental theories in innovation studies and are able to understand the mechanism of innovation management in technology and government projects	Course-embedded survey ITP 620 (N=8)
- Survey conducted to evaluate performance levels of students * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations)	

ITTP Assessment: Learning Goal 3 Domain Expertise in IT Management	
<i>Our graduates develop professional knowledge and exhibit professional competencies in IT management</i>	
Learning Objectives	Method and Sample
(L31) Our graduates build specific knowledge of IT management and understand key issues	Course-embedded survey ITP 753 (N=9)
(L32) Our graduates apply domain expertise to various business problems in IT management	Course-embedded survey ITP 753 (N=9)
<ul style="list-style-type: none"> - Survey conducted to evaluate performance levels of students * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations) 	

ITTP Assessment: Learning Goal 4 Strategic & Cross-disciplinary Competency	
<i>Our graduates are able to strategically analyze business cases and integrate different disciplines in solving business problems in government projects</i>	
Learning Objectives	Method and Sample
(L41) Our graduates use appropriate analytical techniques to solve business problems and demonstrate the ability of sound business judgment	Course-embedded survey ITP 705 (N=9)
(L42) Our graduates synthesize different discipline areas	Course-embedded survey ITP 705 (N=9)
<ul style="list-style-type: none"> - Survey conducted to evaluate performance levels of students * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations) 	

Data Analysis and Results

Learning Goal 1: Global Understanding Course-embedded survey							
Student Number	L11				L12		
	T1	T2	T3	T4	T1	T2	T3
1	2	2	2	2	3	3	3
2	3	3	3	3	2	2	3
3	3	3	2	2	2	2	2
4	3	2	2	3	2	2	2
5	2	3	2	2	2	2	2
6	2	2	3	3			
7	3	3	3	3			
8	2	2	2	2			
3 point total	4	4	3	4	<u>1</u>	<u>1</u>	2
2 point total	4	4	5	4	4	4	3
1 point total	0	0	0	0	0	0	0
Mean	2.5	2.5	2.375	2.5	<u>2.2</u>	<u>2.2</u>	2.4
Overall Mean	2.469				2.267		

Learning Goal 2: Leadership and Innovation Management Course-embedded survey									
Student Number	L21					L22			
	T1	T2	T3	T4	T5	T1	T2	T3	T4
1	3	3	3	2	2	2	2	2	2
2	2	3	3	3	3	3	3	3	3
3	3	2	2	2	2	2	2	2	2
4	2	2	2	3	2	2	2	3	2
5	2	3	2	2	3	2	2	3	2
6	2	2	3	2	3	2	3	3	3
7	3	3	3	3	3	2	2	3	3
8	2	3	2	3	2	2	3	2	2
3 point total	3	5	4	4	4	<u>1</u>	3	5	3
2 point total	5	3	4	4	4	7	5	3	5
1 point total	0	0	0	0	0	0	0	0	0
Mean	2.375	2.625	2.5	2.5	2.5	<u>2.125</u>	2.375	2.625	2.375
Overall Mean	2.4					2.574			

Learning Goal 3: Domain Expertise in IT Management Course-embedded survey				
Student Number	L31		L32	
	T1	T2	T1	T2
1	2	3	2	2
2	3	3	3	3
3	3	3	3	2
4	3	3	3	2
5	2	2	2	2
6	2	2	2	2
7	2	3	2	2
8	2	2	2	2
9	3	2	2	2
3 point total	4	5	<u>3</u>	<u>1</u>
2 point total	5	4	6	8
1 point total	0	0	0	0
Mean	2.444	2.555	2.333	<u>2.111</u>
Overall Mean	2.5		<u>2.2</u>	

Learning Goal 4: Strategic & Cross-disciplinary Competency Course-embedded survey													
Student Number	L41							L42					
	T1	T2	T3	T4	T5	T6	T7	T1	T2	T3	T4	T5	T6
1	2	3	3	2	2	3	2	2	3	2	3	3	2
2	3	2	3	1	1	2	2	2	3	2	2	2	3
3	3	2	2	2	3	3	3	3	3	2	3	3	3
4	2	3	2	2	2	2	3	3	3	2	3	3	3
5	3	3	3	2	2	3	3	3	2	3	2	3	3
6	3	2	3	3	3	2	2	3	3	3	3	3	3
7	3	3	3	3	3	3	3	3	3	3	3	3	3
8	3	2	2	3	2	3	2	2	2	2	2	2	2
9	2	2	2	2	2	2	2	2	2	2	2	2	2
3 point total	6	4	5	3	3	5	4	5	6	3	5	6	6
2 point total	3	5	4	5	5	4	5	4	3	5	4	3	3
1 point total	0	0	0	<u>1</u>	<u>1</u>	0	0	0	0	0	0	0	0
Mean	2.6	2.4	2.5	<u>2.2</u>	<u>2.2</u>	2.5	2.4	2.5	2.6	2.3	2.5	2.6	2.6
Overall Mean	2.4							2.574					

Interpretation of Results and Comments

Learning Goal 1 – Objective 1 (L11)

The overall mean for L11 is 2.469. The results show that the graduates have a satisfactory understanding of global business issues and how to relate current issues to emerging technological developments in their respective countries. In particular, the average scores for Traits 1, 2, and 4 are 2.5, indicating that the graduates have a firm grasp on how to understand and analyze global issues as well as cultural differences between nations. However, the average score for Trait 3 ‘Ability to apply analysis to global business situation’ is 2.375, showing room for improvement.

Learning Goal 1 – Objective 2 (L12)

The overall mean for L12 is 2.267. The results show that the graduates have a multi-cultural understanding to make new global relations and know how to actively cooperate with various people from different countries around the world. However, L12 shows relatively lower scores compared to other Learning Goals. In particular, the average scores for Traits 1 and 2 were 2.2, suggesting that the graduates seem to have a satisfactory understanding of global relations and global manners. The average score for Trait 3 was highest at 2.4, signaling that the graduates have developed great communication skills. Therefore, the score of L12 can be improved if the program/course focus more on understanding global relations (T1) and global manners (T2).

Learning Goal 2 – Objective 1 (L21)

The overall mean for L21 is 2.5. The results show that the graduates have obtained high-performance leadership skills for effectively managing members in their respective organizations to deal with organizational challenges. Specifically, the average scores for Traits 3, 4, and 5 are 2.5, showing that the graduates have obtained satisfactory conflict management and problem solving skills, focus on goals, and multitasking abilities. The average score for Trait 1 is lowest at 2.375, showing there is room for improvement in graduates’ confidence in various endeavors. The average score for Trait 2 is highest at 2.625, showing that the graduates have developed great interpersonal skills while enrolling in the program.

Learning Goal 2 – Objective 2 (L22)

The overall mean for L22 is 2.375. This signals that the graduates have an understanding of fundamental innovation theories and are able to understand the mechanisms of innovation management in technology and government projects. In particular, the average scores for Traits 2 and 4 are 2.375, showing that the graduates have an understanding of how to apply innovation theories and have satisfactory knowledge in their respective research areas. However, the average score for Trait 1 is lowest at 2.125, signaling a room for improvement in graduates’ understanding of innovation management theories. The average score for Trait 3 is highest at

2.625, suggesting that the graduates have learned how to apply appropriate tools in research. Therefore, the results suggest that if more thorough theoretical training is provided to students, application of theory (T2), proper use of research tools (T3), and knowledge on current research trend (T4) should be improved more.

Learning Goal 3 – Objective 1 (L31)

The overall mean for L31 is 2.5. This shows that the graduates have built specific knowledge of IT management and understood key issues in the field. Specifically, the average score for Trait 1 is 2.4, showing that the graduates have gained knowledge on how the IT industry operates. In addition, the average score for Trait 2 is 2.5, signaling that the graduates have developed a thorough understanding of the key issues in IT business environment.

Learning Goal 3 – Objective 2 (L32)

The overall mean for L32 is 2.2. This signals that the graduates know how to apply domain expertise to various business problems in IT management. Specifically, the average score for Trait 1 is 2.3, showing that the graduates have a satisfactory understanding of how to apply IT industry knowledge to specific problems they encounter in the field. Furthermore, the average score for Trait 2 is 2.1, which suggests that although the graduates have gained the ability to recommend solutions to problems using a structured approach, there is room for improvement. The average score of Trait 2 is lowest among all the Traits of the program, so application of problems and providing the solution in business problems in IT management should be balanced

Learning Goal 4 – Objective 1 (L41)

The overall mean for L41 is 2.4. This signals that the graduates can use appropriate analytical techniques to solve business problems and demonstrate the ability of sound business judgment. In particular, the average score for Trait 1 is highest at 2.6, suggesting that the graduates display great aptitude at detecting problems. The average scores for Traits 3 and 6 are 2.5, showing that the graduates know how to apply strategic analytical tools to problems and perform logical analysis. Moreover, the average scores for Traits 2 and 7 are 2.4, signaling that the graduates have a good grasp of factual knowledge of their fields and show sound business judgment. However, the average scores for Traits 4 and 5 are lowest at 2.2, which suggests that the graduates' ability to perform qualitative and quantitative analysis, as well as use advance analytical techniques requires improvement.

Learning Goal 4 – Objective 2 (L42)

The overall mean for L42 is 2.574. The results suggest that the graduates have developed the ability to synthesize different academic disciplines. In particular, the average scores for Traits 2, 5, and 6 are highest at 2.6, showing that the graduates understand how to manage problems

using basic principles, have great integration skills, and are aware of inter-relationships between fields. Moreover, the average scores for Traits 1 and 4 are 2.5, showing that the graduates display satisfactory ability to see from multiple perspectives and intellectual ability. However, the average score for Trait 3 is 2.3, signaling that the graduates' knowledge on specific disciplines can be improved.

Overall Comments

The general results suggest that the graduates have developed satisfactory academic aptitude consistent with the learning goals of the program. In particular, the graduates showed distinctive leadership and interpersonal management skills and developed great strategic and cross-disciplinary competency. On the other hand, the graduates' multi-cultural understanding of different global contexts, as well as their application of domain expertise to solve business issues in IT management can be further improved. Also, further improvement of thorough understanding of basic theories and improvement of both quantitative and qualitative analytical skills and advanced analytical techniques will make the program more efficiently achieve its learning goals. Overall, it can be said that the graduates are being well educated by the ITTP program and are developing into future global IT leaders.