

Shinshu University Advanced Leading Graduate Program
Global Leader Program for Fiber Renaissance
Third-Party Evaluation Report
(2017 Academic Year)



Ministry of Education, Culture, Sports, Science and Technology Advanced Leading Graduate Program
Third-Party Evaluation Report: 2017 Academic Year
Global Leader Program for Fiber Renaissance

Introduction

The Shinshu University Advanced Leading Graduate Program, Global Leader Program for Fiber Renaissance, which welcomed its first class of eight students in April 2014, began its fifth year in 2017, having grown in size to 34 students across five years of study. The program was proud to produce its first two graduates during this academic year, and those former students plan to start corporate jobs in April. We as program staff members are unified in our pride at this first graduating class and confident that they will do great things as future global leaders in industry. Last year, the program underwent an interim evaluation, and this year was one of additional improvement during which program personnel began along with the university and faculty to study how it could continue, including by investigating what type of structures could be put in place following the conclusion of the project that launched it.

We've put in place various program structures and worked to enhance the program and curriculum with each passing year while taking into account corporate, social, and international needs. We've also reviewed various mechanisms to enable students to undertake their studies and research in a manner that does not overtax them. This third-party evaluation is the fourth that the program has undergone, and I'm happy to report that it generated a new round of suggestions and observations. The process brought a reaffirmation of the need to continue to work toward improvements instead of resting on the laurels of past success and the importance of continuing this course of study following the conclusion of the Leading Program project.

I have no doubt that the ultimate standard by which an educational program can be judged is how well it has performed its mission of sending out numerous talented students into society. The first class has moved through the program, and this year we finally produced our first two graduates. I'm confident that they will turn out to be "global leaders who can create organic linkages among the technologies of different fields and technological and human resources that are scattered across the world and who will be capable of driving new businesses and projects." I'm also confident that the students who will follow them as graduates will take advantage of their respective personalities and strengths to further refine their skills.

In closing, I look forward to harnessing the views offered by participants to the program, and especially the enthusiasm of the textile industry, to better the program. Finally, I'd like to express heartfelt gratitude on behalf of the entire program to the Third-party Evaluation Committee members who spent an enormous amount of time during an extremely cold season inspecting and evaluating the program, and assessing and encouraging out students.

March 2018

Masayuki Takatera

Program Coordinator, Shinshu University Advanced Leading Graduate Program
Global Leader Program for Fiber Renaissance

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1. Overview of the Third-Party Evaluation Process

1.1. Third-Party Evaluation Committee Schedule and Program

Shinshu University Advanced Leading Graduate Program
Global Leader Program for Fiber Renaissance
2017 Third-Party Evaluation Committee Meeting Program

Time and date: 1:00 pm on Wednesday, January 24, 2018

Location: Amanda, 3rd floor, The Grand Tiara Ueda (Takasagoden)
(2-2-2 Tenjin, Ueda-shi, Nagano Prefecture)

1:00 pm	Greeting by the program director (Professor Makoto Shimosaka, Dean, Faculty of Textile Science and Technology)
1:05 pm	Explanation of the purpose of the Third-Party Evaluation Committee (Professor Mikihiro Miura, mentor faculty member)
1:10 pm	Explanation of the status of the program (Professor Masayuki Takatera, Program Coordinator) <ul style="list-style-type: none">• Program status• Educational content and methods• Educational quality assurance
1:30 pm	Question and answer session
2:00 pm	Exchange of views between Third-Party Evaluation Committee members and students
2:50 pm	Evaluation summary
3:40 pm	Review
Following the review	Expression of thanks by the program coordinator (Professor Takatera)

Third-party evaluation topics:

- (1) Program structures
- (2) Admissions
- (3) Educational contents and methods
- (4) Educational quality assurance

1.2 Meeting Attendees

Third-Party Evaluation Committee Members

In attendance:

Hideshi Ueda	(Vice Chairman and Chairman of the Board of Trustees, Japan Chemical Fibers Association)
Osamu Tsutsumi	(Member, Technology Committee, Japan Carbon Fiber Manufacturers Association Committee)
Hideo Tsuchiya	(Advisor, All Nippon Nonwovens Association)
Tomio Matsubara	(Director and Chairperson, Educational Activities Committee, Japan Textile Professional Engineer Center)

Not in attendance:

Makoto Sugiyama	(Manager, Lifestyle Industries Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry)
Yasuharu Takagi	(Japan Textile Finishers' Association)
Kunio Kimura	(Vice Chairperson, Society of Fiber Science and Technology, Japan)

Shinshu University

Makoto Shimosaka	(Program Director and Dean of the Faculty of Textile Science and Technology)
Masayuki Takatera	(Program Coordinator and Professor)
Hiroaki Ishizawa	(Chairman, Steering Committee, and Professor)
Shigeru Inui	(Chairman, Educational Strategy Committee, and Professor)
Yasushi Tamada	(Deputy Chairman, Industry Partnership Committee, and Professor)
Kimio Hirabayashi	(Chairman, Student Evaluation Committee, and Professor)
Tsutomu Ishiwatari	(Mentor and Specially Appointed Professor)
Mikihiko Miura	(Mentor and Specially Appointed Professor)
Tsutomu Ikeda	(Office Manager, Faculty of Textile Science and Technology)
Tadahiro Isaka	(Assistant, Research Support and Accounting Group, Faculty of Textile Science and Technology)
Azusa Ohtsubo	(Assistant Manager, Research Support and Accounting Group, Faculty of Textile Science and Technology)
Naoko Suguta	(Secretariat)
Tomoko Ikeda	(Secretariat)
Akiko Kubota	(Secretariat)

Students

Minako Shitara (D2)	(2nd year, Kansei Manufacturing System Engineering, Department of Bioscience and Textile Technology, Interdisciplinary Graduate School of Science and Technology)
Atsuro Ohyama (D1)	(1st year, Smart Materials Science and Technology, Department of Bioscience and Textile Technology, Interdisciplinary Graduate School of Science and Technology)
Phan, Duy Nam (D1)	(1st year, Smart Materials Science and Technology, Department of Bioscience and Textile Technology, Interdisciplinary Graduate School of Science and Technology)
Liu Yang (M2)	(2nd year, Kansei Engineering Course, Department of Textile and Kansei Engineering, Graduate School of Science and Technology)
Ryutaro Seita (M1)	(1st year, Mechanical Engineering Division, Department of Textile Science and Technology, Interdisciplinary Graduate School of Science and Technology)
El-Ghazali, Sofia (M1)	(1st year, Biomedical Engineering Division, Department of Biomedical Engineering, Interdisciplinary Graduate School of Science and Technology)

1.3 Distributed Materials (List)

1. Third-Party Evaluation Committee Program	1 copy
2. Third-Party Evaluation Committee Attendance Chart	1 copy
3. List of Third-Party Evaluation Committee Attendees	1 copy
4. Program Implementation Status Information	1 copy
5. Third-Party Evaluation Committee Evaluation Sheet	1 copy
6. Leading Program Self-Assessment and Evaluation Sheet	1 copy

2. Committee Members' Evaluations Using the Program Evaluation Sheet

One month prior to the meeting of the Third-Party Evaluation Committee, we mailed each committee member the program's Self-Assessment Evaluation Report and a Program Evaluation Sheet (Individual Version) (see "5. Third-Party Evaluation Materials" below). We then asked committee members who would not be able to attend the meeting to fill in the Program Evaluation Sheet based on the Self-Assessment Evaluation Report. On the day of the Third-Party Evaluation Committee meeting, we also asked committee members to use this Program Evaluation Sheet to evaluate the program based on an explanation of the program's status provided by the program coordinator and program staff members and the exchange of views with students. The results of this process are summarized below. We asked committee members to make their evaluations using a five-grade scale (A: Exceptional; B+: Excellent; B: Normal; B-: Somewhat more effort required; and C: Significantly more effort required), focusing on the period from January 2017, after publication of the previous Self-Assessment and Evaluation Report, to December 2017. Evaluations from committee members not in attendance based on an examination of documents provided by the program have been indicated by the note "(Not in attendance)" preceding each observation.

(1) Program structures

The Leading Program's administrative organization is operating in an appropriate manner based on its objectives.

Perspective 1-1

Is the Leading Program's administrative organization operating in an appropriate manner so as to train graduates who reflect its objectives?

Committee members' individual evaluations and comments

- A A dense administrative organization has been developed and implemented both at the university and externally to it since the launch of the program. It is clear that a series of improvements have been made. However, I'd like to see a faster pace of progress from the Action Plan Creation Committee in preparation for two years down the road.
- B+ OK. The real question is how to ensure the program continues. For example, by utilizing resources like NEDO. The overseas special practical training program needs to be reviewed.
- A The program is trying to incorporate the views of bodies such as the Third-Party Evaluation Committee, with a particular focus on stakeholders in industry and elsewhere, in order to foster global business leaders.
- A There is an urgent need to establish structures, including to provide financial support, after subsidies from the Ministry of Education, Culture, Sports, Science and Technology end.
- A (Not in attendance) I assess that the program structures are appropriate.
- B+ (Not in attendance) Structures that can be taken advantage of have been put in place under the president's leadership, and I assess that those structures are adequate. I'd like to see a plan drawn up sooner rather than later so that the level of activity does not drop off after subsidies from the Ministry of Education, Culture, Sports, Science and Technology end. I believe that there needs to be a rethinking of the scale of the

program to create an organization that is specialized to reflect its characteristics and results.

A (Not in attendance) None

Perspective 1-2

Does the program review its administrative structures in light of social needs?

Committee members' individual evaluations and comments

A I'm confident that social needs are being effectively reflected in the project through communication with companies and Third-Party Evaluation Committee members.

A Lectures by corporate managers

A The secretariat and students are working together effectively in an effort to collect and disseminate information in a flexible manner, as is apparent in the way they're dealt with a magazine article about the program, which was recommended by the Ministry of Education, Culture, Sports, Science and Technology and hosting the fifth Student Meeting of Leading Graduate Schools.

B+ There has been progress in this sort of review. Observations from the Third-party Evaluation are being applied to the program, and the number of opportunities for collaboration with companies is increasing.

B+ (Not in attendance) In events that match students with internship positions at companies, and when touring factories, what kind of employees are companies looking for as workers who will survive and prosper in international society? For example, researchers? Innovators? What kind of educational approach will create such graduates?

A (Not in attendance) I assess that the program reviews structures to ensure they align with social needs in a flexible and timely manner.

A (Not in attendance) None

Perspective 1-3

Have structures been put in place to facilitate international collaboration?

Committee members' individual evaluations and comments

A I recognize the program for a high level of global collaboration through comprehensive agreements with overseas universities and Manufacturing and Value Creation seminars.

A The program utilizes joint workshops. It also hosts exchange students.

B+ Study abroad programs from Europe are still limited to short-term options. I'd like to see even more effort put into this area, for example by accepting international students on long-term stays.

A There has been an increase in the number of institutions with which the program has entered into key agreements, and there is an extensive range of substantial exchange going on.

B+ (Not in attendance) The program has put in place structures to facilitate collaboration. I believe that this collaboration should be deepened and further developed.

A (Not in attendance) The program has developed activities based on agreements with a large number of overseas universities, and I recognize that it has put in place

collaborative structures. In particular, the double-degree program with ENSAIT is attracting attention.

B+ (Not in attendance) None

(2) Admissions

The program has established a clear series of basic policies concerning selection of students, and applicants are admitted in an appropriate manner based on those policies.

Perspective 2-1

Has the program put in place an admissions policy, and has that policy been publicized and disseminated widely?

Committee members' individual evaluations and comments

A There are five clearly defined characteristics in the policy, and they comprise a philosophy that drives student expectations and dreams. I believe that there are no issues with the publicization and dissemination of the policy through the program's website.

A OK

A The policy has been publicized and disseminated.

A There is a policy, and students are aware of it.

A (Not in attendance) The admissions policy has been clearly defined, and it has been publicized and disseminated widely.

A (Not in attendance) Fiber engineering lies at the core of the admissions policy. Although five characteristics of the ideal applicant have been set forth in the admissions policy, it seems to me that a formulation that emphasizes the first of them ("students with a high level of interest in the field of fiber and textiles") would be easier to understand for students.

B+ (Not in attendance) None

Perspective 2-2

Has the program adopted an appropriate method for accepting applicants based on its admissions policy, and is that method functioning substantively?

Committee members' individual evaluations and comments

B I have concerns about the admission of a diverse range of students. (1) There is a lack of enrollees from other universities in Japan. (2) There is a lack of enrollees from Europe and North America. (3) The vision for how the program will continue following the end of subsidies from the Ministry of Education, Culture, Sports, Science and Technology remains opaque. These concerns need to be addressed in the near future.

B+ Budgetary issues need to be resolved soon.

A Applicants are accepted in line with the admissions policy.

B+ The program is doing a good job of attracting a well-balanced mix of international students. There is an urgent need to address the decrease in the number of students planning to enroll for the 2018 academic year.

B (Not in attendance) I do not see a sufficient level of effectiveness to conclude that the method is functioning substantively. However, the program is working to analyze the

causes of that shortfall, and I expect that the measures adopted to address whatever is found will prove to be effective.

- B (Not in attendance) My sense is that the program is struggling to attract applicants for the 2018 academic year. The program should move quickly to formulate a plan for the future and consider reviewing recruitment and admissions methods based on the size of the program and that plan.
- B+ (Not in attendance) None

Perspective 2-3

Is the program involved with initiatives to verify whether student acceptance is actually being carried out in accordance with the admissions policy, and are the results of those initiatives being used to improve the selection process?

Committee members' individual evaluations and comments

- B+ There are no issues with the structures involved with student acceptance. However, I get the sense that results suggest that the diversity among students enrolling in 2015, 2016, and 2017 is not being reproduced. The program needs to move quickly to develop an action plan for the future.
- A OK
- A None
- A None
- B+ (Not in attendance) The topics discussed by the Leading Program Committee as it meets each month are being carefully considered, and specific action is being taken. Those results are visible.
- B (Not in attendance) I'd like to see the program move beyond verifying whether students are being accepted in line with the admissions policy and also verify overall alignment, including with the CP and DP.
- B+ (Not in attendance) None

Perspective 2-4

Is the program publicizing itself to recruit talented students?

Committee members' individual evaluations and comments

- B+ The program is carrying out a dense range of public relations activities. However, the lack of clarity concerning the acceptance structures that will apply in 2019 and beyond is having a negative impact on student admissions results. Current students also have concerns.
- B+ I'd like to see further study concerning acceptance of students from other universities.
- B+ The number of applicants taking the entrance examination for the new academic year, as well as the number of newly admitted students, is declining due to the impending end of the subsidy program two years from now. In addition to quickly undertaking a review of support schemes, the program needs to more actively publicize the quality of the education it offers students interested in pursuing careers on the global stage.
- A Could the program issue news releases to other industry newspapers and magazines?
- B+ (Not in attendance) The program is carrying out a range of more specific activities in addition to general public relations. Going forward, the program should further

enhance the latter. At the same time, I think that the program should gather views from companies.

- B- (Not in attendance) To attract talented students, it will be important to publicize more information, including the support that will be available for students after the end of subsidies from the Ministry of Education, Culture, Sports, Science and Technology. I would ask the program to move quickly to formulate a plan that provides continuity.
- B (Not in attendance) None

(3) Educational content and methods

The program's educational content and methods are appropriate in order to train graduates who exhibit the qualities set forth in its objectives, and they are being implemented in an appropriate manner.

Perspective 3-1

Is the Leading Program's curriculum appropriate?

Committee members' individual evaluations and comments

- B+ The program has designed, improved, and implemented a curriculum that aligns with the Leading Program's founding philosophy. Students have not indicated that they are required to earn too many credits.
- A The program has moved to incorporate feedback from the Third-Party Evaluation Committee as well as from students, and efforts to improve the curriculum have been making progress.
- A Although I can understand the need to review the number of credits earned, I did not hear that view expressed by the students today.
- A The program has incorporated the views of the Third-Party and Intermediate Evaluation Committee members as well as of students, and the curriculum is appropriate.
- B+ (Not in attendance) Society demands active, innovative professionals. I'd like to see two-way education, as opposed to one-way education, be enhanced as the basis of a curriculum that trains such people (for example, by training students to live out their own narrative and vision).
- B+ (Not in attendance) The curriculum has been revised so as not to impose an excessive workload on students, and I recognize that. I would ask that the program also take steps to ensure that the faculty who implement the program are not subject to an excessive workload, either.
- B+ (Not in attendance) None

Perspective 3-2

Is the curriculum being implemented in an appropriate manner?

Committee members' individual evaluations and comments

- B+ All aspects of the curriculum are being implemented according to plan. There is a need to take into account program scheduling (due to dissatisfaction with changes, duplication, and last-minute changes).
- A Students indicated that all components of the curriculum are necessary, and I consider it to be appropriate.

- B+ I heard from students that they would like to see the curriculum and schedule announced and publicized as early as possible.
- A There are also extensive internship options and other opportunities. The program has been improved and is appropriate.
- A (Not in attendance) I believe that the program's practical approach is excellent.
- A (Not in attendance) The program has adopted an international perspective, and I give it credit for that.
- A (Not in attendance) None

Perspective 3-3

Does the program provide a system that enables students to achieve program objectives while assessing their own progress on an ongoing basis?

Committee members' individual evaluations and comments

- A Students are making smooth progress toward achieving their own goals thanks to the use of self-assessment sheets.
- B+ The self-assessment sheets need to be revised.
- A I believe that this aspect of the program is functioning well.
- A Self-assessment sheets have been revised, and there is feedback from QE and SR evaluators. This aspect of the program is appropriate.
- B+ (Not in attendance) Although the system in place requires students to strive to achieve program objectives while assessing their own progress on an ongoing basis, I believe the perspective needed here is one that drives students to ask whether they are living out their own narrative and whether they are making progress toward those goals.
- A (Not in attendance) I praise the program for its appropriate approach here.
- A (Not in attendance) None

Perspective 3-4

Is the program's educational and research environment appropriate?

Committee members' individual evaluations and comments

- A The program has given sufficient consideration to students' living quarters, desks, and furnishings.
- A OK
- A None
- B+ Would joint use of equipment with other research institutions be one way to enhance the range of equipment that is available?
- B+ (Not in attendance) Wouldn't it be a good idea to tweak the educational and research environment provided to students in a way that would tap their creativity, even in a small way through student-generated ideas?
- A (Not in attendance) The mentor system is functioning well, and I praise the program for the manner in which it has put in place educational and research structures.
- A (Not in attendance) None

Perspective 3-5

Does the program offer appropriate support structures for students?

Committee members' individual evaluations and comments

- B+ The program has put in place well-considered support structures. With regard to concerns about the tapering off of financial support, there is a need for the program to provide an adequate explanation (concerning the 2020 academic year and beyond).
- A The program has a mentor program and other structures, so this aspect of its operation is OK.
- A Research and thesis guidance is generally appropriate. Japanese students and international students voiced praise for the revision support scheme for English-language theses.
- A There could be more extensive support structures that are directly linked to job search activities.
- B+ (Not in attendance) Although the program has put in place a variety of support structures, I think it would be even better if it could provide concrete support for structures that would help international students find jobs in Japan.
- A (Not in attendance) I'm impressed with how the program has put in place sufficient mental health structures for students, including international students.
- A (Not in attendance) None

Perspective 3-6

Do students find the program satisfying?

Committee members' individual evaluations and comments

- A There is adequate communication among the program coordinator, mentors, and students, and I believe that student concerns and issues are being addressed.
- A Student feedback indicates that they feel all aspects of the curriculum are beneficial, and I believe that they are satisfied.
- B+ The program conducts a survey every year, and its findings should be explained to the Third-Party Evaluation Committee.
- A There are numerous opportunities to exchange views with students, who find the program satisfying.
- B+ (Not in attendance) It seems to me that there's a need not only to consider enriching the program so that it satisfies students, but also to ensure that it is enabling students to make the most of their latent abilities.
- A (Not in attendance) Mechanisms designed to identify student wishes through mentors are functioning well, and I see no evidence of problems.
- B+ (Not in attendance) None

(4) Educational quality assurance

The program takes steps to assure the quality of the education it offers in an appropriate manner.

Perspective 4-1

Are the program's degree conferment standards appropriate?

Committee members' individual evaluations and comments

- A None
- A OK
- A They are generally appropriate. This year's doctoral degree conferment should also be subject to review.

- B+ There are standards in place, and they are being improved. At the current time, degree screening results are not available.
- A (Not in attendance) The program is working to make improvements by taking advantage of Shinshu University's degree conferment standards and its own characteristics and by accepting recommendations and observations from Third-Party Review Committee members as appropriate. Although no students have received a practical degree yet, the approach that the program takes in this area is appropriate.
- A (Not in attendance) The program has clear degree conferment standards, and they can be deemed appropriated. The degree review is currently ongoing, and results are pending. In the event of an issue, for example with the review process, I would ask that the program study how to address it, including by reassessing the review standards.
- B (Not in attendance) None

Perspective 4-2

Are the quality assurance standards appropriate when compared to social needs?

Committee members' individual evaluations and comments

- A I observed numerous research topics addressing current environmental, safety, and medical needs.
- B+ How about doing more to incorporate the views of corporate management?
- B+ The standards are generally appropriate. The program should do a better job of incorporating SDG initiatives.
- A The program is making progress revising the standards, which are appropriate.
- A (Not in attendance) The program gauges its standards against social needs as appropriate, and it is working continually to apply quality assurance. I believe that the methods themselves are appropriate.
- A (Not in attendance) Although only a limited number of companies are targeted, the program conducts research and interviews as appropriate and has structures for applying social needs to its quality assurance standards.
- A (Not in attendance) None

Perspective 4-3

Is the content of the qualifying examination appropriate, and is the examination offered in an appropriate manner?

Committee members' individual evaluations and comments

- A None
- A OK
- A None
- A None
- A (Not in attendance) The program has established clear standards for the qualifying examination implementation guidelines, and the examination has been administered accordingly. I judge the results to be appropriate.
- B+ (Not in attendance) The program may already be implementing standards, but use of techniques such as rubric evaluation is an effective way to facilitate fair, clear, standards-based evaluation and student self-assessment.

A (Not in attendance) None

Perspective 4-4

Is the content of the systematic review appropriate, and is the review administered in an appropriate manner?

Committee members' individual evaluations and comments

A None

A OK

A The content is generally appropriate.

A The content and administration of the review are appropriate.

A (Not in attendance) The program has established clear standards for the systematic review implementation guidelines, and the review has been administered accordingly. I judge the results to be appropriate.

B+ (Not in attendance) The program may already be implementing standards, but use of techniques such as rubric evaluation is an effective way to facilitate fair, clear, standards-based evaluation and student self-assessment.

A (Not in attendance) None

Perspective 4-5

Are student research findings sufficient?

Committee members' individual evaluations and comments

A None

B+ The number of theses is still too small. How about evaluating performance in a way that includes patents?

A As far as I can tell from this year's research presentations, there is a generally good balance of social topics and students' own research.

B+ The number of theses is increasing. Are industrial property rights included?

B+ (Not in attendance) Reviewing the limited number of student reports, I noticed numerous manifestations of students' unique perspectives. I expect to see those lead to additional results in the future.

B (Not in attendance) The number of theses and presentations has been increasing gradually. Although there is some bias in terms of who's authoring theses, that bias is understandable given how submission of theses varies with research topics, so I don't consider it to be problematic. The number of students going on to the doctoral program will increase in the future, so I expect to see an improvement in research findings.

B+ (Not in attendance) None

Perspective 4-6

Are students making an adequate contribution to their employers?

Committee members' individual evaluations and comments

A Currently, OK.

B+ This year's two graduates should be followed closely by monitoring both the individuals in question and their employers.

B+ I have high expectations for the graduates who have received job offers.

B+ (Not in attendance) A considerable amount of time is needed in order to ascertain how well graduates are contributing to their employers, and not requiring too much in the way of immediate results will be important to the program's continuity. Graduates will establish themselves independently in society in the future, and I look forward to seeing how they perform.

B (Not in attendance) None

No evaluation: Two members (of whom one was not in attendance)

(5) Remarks about the exchange of views with students, other

- Concerning the program's structures, educational content, and educational quality assurance, the program is adequately planning and implementing those aspects of its operations and undertaking adequate countermeasures. The PDCA cycle is being implemented smoothly.
- Concerning student admissions, I have concerns about (1) recruitment of European and North American students and (2) recruitment of students from other universities in Japan, as I've mentioned for the last four years.
- It will be important to move quickly to clarify support structures for students after the end of subsidies from the Ministry of Education, Culture, Sports, Science and Technology. In particular, it will be desirable to accelerate the work of the Action Plan Creation Committee.
- There is a need for measures that analyze the decline in the number of students taking the program's entrance examination and in the number of enrollees for the 2018 academic year.
- The first stage following the launch of the project has ended, and the second stage will soon end. I'd like to see feedback from graduates who have joined companies and from the companies that hired them brought to bear on how the second stage is pursued.
- There is a need to build structures to generate feedback in the form of results at companies that hired students and in those companies' impressions of the students, as well as follow-up structures.
- There is a need to further broaden the scope of the Leading Program's public relations (to target companies)!
- Concerning the program's educational content, I think students are being sufficiently satisfied, and I think the approach is showing results. When I think about the financial side of the program going forward, I see a need to further appeal to corporate management.
- Students see job placement as a problem, and there's a need for an even more fine-grained approach. I think the program should develop a general overview of the approach that will be taken after the end of subsidies as quickly as possible.
- Each year, students grow in a variety of ways. At the same time, I sense variations in their sense of purpose and motivation. In any case, I'd like to see the program train professionals and leaders who can identify their own issues under all conditions, involve others in an organizational way, and carry out their responsibilities with tenacity.
- (Not in attendance) Companies in the industry have a high level of expectation concerning the program's ability to train global leaders for a new fiber renaissance. I'd like to thank everyone involved in the program for their hard work day in and day out. I don't think there's room for us to be comfortable with Japan's current position in the fiber industry worldwide. To survive in the industry requires training global professionals who can pursue careers throughout the world, and that's what everyone wants to see happen. However, how

do we define the kind of global professionals that are needed? I worked for many years as an engineer in corporate Japan. Based on my experiences over that time, I think society needs three kinds of engineers: first, craftsmen; second, researchers; and third, innovators who can create new things. I think the role that the program is expected to play in this context is to train the second and third type of professionals. In the course of a company's daily operations, these three types of professionals are called upon to play a number of roles concerning corporate needs. Craftsmen are able to manufacture all types of products in a concrete way so that they align with the direction that the company has chosen for its business. Researchers, who are expected to develop original products for their company, are able to determine their own, specific research topics, delve into them, and develop new products as a result. Innovators are able to give shape to desirable new systems and products while effectively utilizing their company's intellectual property and observing the entire industry from both a domestic and international perspective.

I want to see students who are trained by the program as global leaders pursue dynamic careers in a way that takes advantage of their personal strengths. I also expect students who have grown into global leaders to align with the innovators needed by companies.

3. Third-Party Evaluation Committee Meeting Minutes

Shinshu University Advanced Leading Graduate Program
Global Leader Program for Fiber Renaissance
2017 Academic Year Third-Party Evaluation Committee Meeting Minutes

Time and date: 1:00 pm on Wednesday, January 24, 2018
Location: Amanda, 3rd floor, The Grand Tiara Ueda
Attendees: Third Party Evaluation Committee members
Hideshi Ueda (Japan Chemical Fibers Association), Osamu Tsutsumi (The Japan Carbon Fiber Manufacturers Association), Hideo Tsuchiya (All Nippon Nonwovens Association), Tomio Matsubara (Japan Textile Professional Engineer Center)

Shinshu University

Dean Shimosaka
Professor Takatera
Professor Ishizawa
Professor Tamada
Professor Inui
Professor Hirabayashi
Specially Appointed Professor Miura
Specially Appointed Professor Ishiwatari
Office Manager Ikeda
Assistant Isaka
Assistant Manager Otsubo
Research Assistance Coordinator Suguta
Research Assistance Coordinator Ikeda
Research Assistance Coordinator Kubota

Not in attendance: Kunio Kimura (Society of Fiber Science and Technology), Makoto Sugiyama (Lifestyle Industries Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry), Yasuharu Takagi (Japan Textile Finishers' Association)

(1) Greeting by the Program Director

Program Director Shimosaka (Dean, Faculty of Textile Science and Technology) welcomed attendees ahead of the convocation of the meeting of the Third-Party Evaluation Committee.

(2) Explanation of the Third-Party Evaluation Committee

Specially Appointed Professor Miura explained the materials that had been distributed to committee members as well as the evaluation process. He also requested their cooperation with the program's plans to publish a report on the meeting at a future date, which the committee members approved.

(3) Explanation of the Status of the Program's Implementation

Program Coordinator Takatera offered an explanation of the program's implementation, from its selection to its current status, in line with the self-evaluation report.

(4) Question and Answer Session

A question and answer session about the status of the program's implementation was held. Members of the Third-Party Evaluation Committee repeatedly acknowledged that the program had made improvements to address the issues that were pointed out during the previous year. However, they also expressed the following views and requests:

- A. The program needs to work to communicate its advantages more effectively and to study how to pursue public relations in order to attract students from Europe, North America, and other universities in Japan.
- B. Concerning issues such as the development of structures following the end of subsidies and the fact that uncertainty about the future is contributing to a decline in interested applicants, the program needs to move quickly to clarify the future, including the outlook for its continuation, the implementation of specific structures, and financial assistance such as ongoing support.
- C. The program needs to develop mechanisms for obtaining feedback from the two students planning to graduate this year after they start their corporate jobs.
- D. The program needs to create opportunities for communicating its advantages to companies in order to obtain donations as a type of financial assistance.
- E. There would seem to be opportunities for stakeholders to cooperate more actively, for example through internship matching meetings.

Third-Party Evaluation Committee members also observed that students seemed to be growing and improving their skills through their program coursework and a variety of experiences.

They also suggested that the program develop mechanisms to categorize annual, end-of-year presentations based on their content instead of having all students present their research, for example by having M1 students give a presentation about how their interests motivated the research they conducted.

(5) Exchange of Views between Third-Party Evaluation Committee Members and Students

Committee members exchanged views with six representatives representing four years of study (one or two from each year), including international students. Committee members asked students about areas where the program excels, where it could be improved, the students' visions for their future, and internship and other recruiting opportunities.

Areas where the program excels

Students cited the aims and benefits of the program's curriculum, for example a broadening of students' horizons and the ability to engage with students from a variety of countries in a spirit of friendly competition, as well as the extensive support provided, for example in the form of revisions for English-language papers. They also described personal growth through a variety of experiences. Third-Party Evaluation Committee members offered to give advice as stakeholders on the job search process and to otherwise cooperate.

Areas of potential improvement and concerns

At the same time, numerous students expressed unease about support following the end of subsidies. They also touched on the workload imposed by a variety of events and expressed some dissatisfaction with schedule coordination, but it was clear that some students were able to manage their time effectively.

Future vision

Committee members asked the students about their future plans, and the students (including international students) offered a variety of responses that included plans to work for companies in Japan or Japanese companies in their own countries, or to start their own businesses.

Overall

The exchange of views painted a picture of a difficult program that nonetheless inspires a high level of satisfaction by offering students positive experiences through both the curriculum and events.

(6) Evaluation Summary

A summary of the evaluation was presented as described below, with Vice Chairman Hideshi Ueda chairing the proceedings.

Program structures: A

- The program's structures have developed adequately since the launch of the project, and there are no problems that need to be addressed.
- My only concern is with Perspective 1-1. The program needs to move quickly to determine how it will continue in the future.
- The program needs to quickly decide what to do about structures after subsidies end (Perspective 1-1).
- The most important thing is to put in place structures for after subsidies end. I give the program an A in this area, but I'd like to see robust action to address this issue.
- The three members not in attendance offered the following evaluations: B+, A, and A.

Admissions: B+

- B+: Although the program has a clearly defined admissions policy, the small number of students from Europe and North America and the failure of students to apply from other universities in Japan is a negative. Some items received an evaluation of B.
- B+: Perspective 2-2 is a concern. There is also concern about the failure of students from other universities to apply to the program.
- B+: The lack of structures for after subsidies end is fuel for concern. It seems to me that there are more ways to pursue public relations, for example publishing news releases in industry newspapers and magazines.
- B+: The decline in the number of students precipitated by the end of the subsidy program is a serious problem. It will be important for the program to review its assistance scheme and quickly establish an outlook for the future. The program also needs to do a better job at communicating the quality of the education it offers global professionals to students. I

do acknowledge that the program has done a good job at communicating information through publications such as the *Toyo Keizai*.

- The three members not in attendance offered the following evaluations: B+, B, and B+.

Educational content and methods: A

- Although two items received an evaluation of B+, students did not indicate that they felt that they were being called upon to earn too many credits, so that may be a misunderstanding on the part of faculty members. There is perhaps a need to give more consideration to scheduling with regard to program events.
- With regard to Perspective 3-3, it seems to me that the program needs to establish more uniformity in terms of the approach to student evaluation.
- It goes without saying that the program has to assemble research equipment, but could that burden be better distributed?
- A: I'd like to see the program contact students more quickly about subjects such as the curriculum and schedule. Both Japanese and international students had high praise for the assistance the program provides with revising English papers, so I'd like to see the program do a good job addressing student needs, rather than adopting a uniform approach, when it reviews how to move forward after subsidies end. I'd also like to see the program conduct a survey every year and report the results to the Third-Party Evaluation Committee.
- The three members not in attendance offered the following evaluations: B+, A, and B+.

Educational quality assurance: A

- A
- A: There were also two items that I gave an evaluation of B+. It seems to me that gauging the program against social needs means seeking the views of corporate management and more actively applying them to the program. Concerning research findings, I think the number of papers overall is low. It would be good to see the number of patents increase.
- There are degree conferment standards, but the review results are not available at this time.
- A: I think it's a good experiment to have a faculty member other than the student's advisor chair the review committee and to have foreign researchers participate in the review process when conferring degrees, but I'd like to see the program impose a rigorous review process and achieve the results that were envisioned at the outset. Concerning social needs, there was little awareness of environmental issues evident in this round of student presentations, even though interest in such issues is surging worldwide. I'd like to see the program better incorporate such awareness into research.
- The three members not in attendance all offered an evaluation of A.

Overall evaluation: A

- With the subsidy program set to end in two years, the program is entering upon an extremely important time in its history when it will be key to establish its continuity. In light of the social importance of the program's goal of training a new generation of global leaders, the Third-Party Evaluation Committee strongly encourages the Ministry of Education, Culture, Sports, Science and Technology as well as the university administration to continue the program.

- The committee was told that program staff members have created an Action Plan Creation Committee from this perspective and started negotiating with the university administration, but in light of the unease being expressed by program students and the decline in interested applicants, I think the program needs to quickly develop a plan that would allow it to continue while maintaining its essential advantages. Then it needs to make that plan public.
- It seems that the students feel engaged and challenged by the program's educational approach to training global business leaders, so I'd like to see support for the ongoing education of such leaders and cooperation between the university and industry officials so that such leaders can find jobs that allow them to live up to their potential.
- The three members not in attendance all offered an evaluation of A.

(7) Review of the Evaluation

Vice-chairman Ueda notified Shinshu University of the committee's overall evaluation of "A."

(8) Expression of Thanks from the Program Coordinator

Program Coordinator Takatera expressed his thanks to the committee members.

4. Response to the Third-Party Evaluation

Response to the 2017 Third-Party Evaluation

Masayuki Takatera
Program Coordinator

The university and program staff have cooperated to apply as many of the valuable insights and suggestions from the Third-Party Evaluation Committee members as possible to the program. Observers have acknowledged the hard work that went into those improvements, and the program received an evaluation of A (on a five-level scale of S, A, B, C, and D) in an intermediate evaluation carried out last year by the Japan Society for the Promotion of Science. Rather than resting on our laurels, we continue to work to improve to make the program even better.

Once more this year, we received various observations and advice from the members of the Third-Party Evaluation Committee. Among them were instances where we've worked to make improvements but unfortunately failed to realize the results we'd hoped for. We plan to pursue the following improvements based on this year's advice from committee members.

(1) Program structures

Although many committee members praised the program for incorporating the views of the Third-Party Evaluation Committee and other observers with regard to program structures and pursuing substantial global collaboration, they noted that the program needs to move quickly to establish structures to function after subsidies from the Ministry of Education, Culture, Sports, Science and Technology end; to precisely assess the type of professionals needed by society; and to review how students are educated in order to meet those needs.

With regard to structures that will function after subsidies from the Ministry of Education, Culture, Sports, Science and Technology end, the Action Plan Creation Committee is consulting with the university administration to create a proposal for basic program structures, based in part on actions taken by other universities' Leading Programs that have already dealt with this challenge. We're planning to complete a specific proposal by the second half of the 2018 academic year. With regard to assessing the type of professionals needed by society and reviewing how students are educated in order to meet those needs, we plan to create new opportunities for soliciting the views of companies and to bring them to bear whenever possible as we revise the next curriculum.

(2) Admissions

With regard to student admissions, many committee members addressed the fact that the number of students planning to enroll during the 2018 academic year fell to 4 from 10 the previous year by noting concerns about the admission of a diverse group of students and the failure to attract students from other universities and from Europe and North America. They also called for additional effort on the part of the program, for example by accepting long-term international students from Europe. To accomplish this, they suggested that the program needs to publicize its

advantages more actively and that the program needs to address the lack of clarity in its vision after subsidies end by quickly formulating a plan for the future and studying how to recruit students in line with its size and plan, as well as how to admit the desired type of student.

With regard to admitting a diverse group of students and attracting students from other universities and from Europe and North America, our inability to guarantee financial support for students after subsidies end is driving down the number of applicants. In response, we intend to move quickly to build suitable structures and to make them clear to students as a way to retain enrollees. Furthermore, we will work to publicize the program in a way that emphasizes its strengths based on advice from committee members. In addition, with regard to accepting long-term international students from Europe, there are limits to what the program can accomplish on its own, and we plan to address that issue by strengthening structures to facilitate cooperation with university departments involved with international exchange. Although some Leading Programs have reduced class sizes in consideration of the decline in applicants, we will work to keep those sizes constant as long as subsidies continue so that we can attract a diverse group of students.

(3) Educational content and methods

With regard to educational content and methods, committee members offered praise for how the program has incorporated an international perspective and adopted a practical approach. However, they also offered overall advice about the need to contact students as quickly as possible with information about the program's schedule; advice about educational methods, for example citing the need to further enrich two-way education, implement approaches that tap students' latent abilities and creativity, evaluate progress to gauge whether students are creating their own narrative in order to achieve their goals; advice about helping students find jobs, for example through support structures that are linked directly to job search activities and concrete structures that would help students find jobs in Japan; and feedback about the need to survey students and explain the results to Third-Party Evaluation Committee members.

With regard to the need to inform students as soon as possible about the schedule, we distribute annual schedules as part of our guidance each April. However, not all scheduling issues have been finalized by that date, and those get communicated to students as they are decided. Although the Educational Strategy Committee and Secretariat work together to finalize the schedule as early in the year as possible, it takes time to coordinate with part-time instructors and overseas faculty members, which means that sometimes those schedules are not finalized in time for inclusion in the guidance. I look forward to working to enable us to communicate schedule information to students sooner.

With regard to further enriching two-way education and tapping students' creativity, we consider those priorities to be important in our drive to achieve the program's educational goals. Consequently, the program's distinctive coursework approach focuses on two-way discussion, most of which is conducted in English. However, with regard to use of existing master's program lectures, the large number of students in those classes makes it difficult to utilize a discussion format, although we will continue to work to increase reliance on the program's unique approach. I believe that enhancing two-way education that consists primarily of discussion is an

effective way to tap students' latent abilities and creativity, and that this approach can be expected to empower students to develop a narrative that will let them achieve their own goals.

In addition, with regard to committee members' advice to make joint use of research and educational equipment with other research institutions, opening use of educational and research equipment purchased with Leading Program subsidies to other institutions is incompatible with the purpose for which the subsidies were received. As a result, it would be difficult to do so.

With regard to providing support for students' job searches and concrete back-up for international students in particular, we conduct interviews with students concerning internships and job opportunities in cooperation with the university's human resources development center, but going forward we plan to take an even more active approach to increase the fruits of those efforts. With regard to international students, we plan internships while listening to student needs with the goal of placing them at Japanese textile companies that operate plants in students' own countries.

With regard to the results of our student survey, we plan to share those with the Third-Party Evaluation Committee.

(4) Educational quality assurance

Concerning degree conferment standards, committee members deemed those standards appropriate but noted that the degree review was currently underway and that it would be necessary to consider reassessing the review standards if any problems emerged during the review process. Concerning compliance with social needs, many of the committee members offered praise, noting that the standards are reviewed as necessary and that the program is working constantly to apply quality assurance in an effort that they considered appropriate. At the same time, they suggested that the program consider more actively incorporating the views of corporate management. In addition, committee members addressed student evaluations by proposing the use of rubric evaluation and the inclusion of patents and industrial property rights in the evaluation process. They also noted that students were authoring too few papers. Concerning students' post-graduation careers, they suggested that the program thoroughly follow up on graduates through the graduates themselves as well as their employers.

Concerning the reassessment of degree review standards, various procedures related to the use of degree reviewers from overseas and the preparation of English-language documents as part of the first degree review carried out under the program's unique review standards proved to be time-consuming, but the review was conducted in a rigorous manner that conformed to the standards. No problems emerged from the review process. Consequently, we see no need to reassess the review standards at this time.

Concerning the suggestion that the program more actively incorporate the views of corporate management, we look forward to soliciting those views concerning the kind of employees they're looking for when corporate managers visit the university as part of coursework on intellectual property. In addition, we welcome the views of management when members of the

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Industry-Academia Partnership Committee visit companies and when students visit factories for training.

Concerning the proposal to use rubric evaluation as part of student evaluations and to include patents and industrial property rights in the evaluation process, the program already uses a five-scale (0 through 4) rubric evaluation to assess how well goals are being achieved. However, we plan to define the standards that lead to evaluation scores more clearly. In addition, concerning the suggestion to include patents and industrial property rights in the evaluation process, patents already serve as one evaluation item; however, we will consider using other industrial property rights as well. Concerning the observation that students are authoring too few papers, we've lowered the number of credits required to graduate, and I expect that change will reduce students' workload so that they can spend more time on research and therefore author more papers.

Concerning the suggestion that the program follow up on graduates, we see such initiatives as a key part of the program's administration. To that end, we are looking for ways to stay in close communication with graduates and their employers, and we look forward to bringing that system online as quickly as possible.

5. Third-Party Evaluation Materials
5.1 Program Evaluation Sheet (Individual Version)

Shinshu University Advanced Leading Graduate Program
2017 Academic Year Third-Party Evaluation Committee
Program Evaluation Sheet (Individual Version)

Target dates: January 2017 to December 2017

Overall Evaluation

[A / B+ / B / B- / C]

A: Exceptional B+: Excellent B: Normal

B-: Somewhat more effort required C: Significantly more effort required

Evaluation items

1. Program structures

[A / B+ / B / B- / C]

The Leading Program's administrative organization is operating in an appropriate manner based on its objectives.

Perspective 1-1

Is the Leading Program's administrative organization operating in an appropriate manner so as to train graduates who reflect its objectives?

[A / B+ / B / B- / C]

Comments

Perspective 1-2

Does the program review its administrative structures in light of social needs?

[A / B+ / B / B- / C]

Comments

Perspective 1-3

Have structures been put in place to facilitate international collaboration?

[A / B+ / B / B- / C]

Comments

2. Admissions

[A / B+ / B / B- / C]

The program has established a clear series of basic policies concerning selection of students, and applicants are admitted in an appropriate manner based on those policies.

Perspective 2-1

Has the program put in place an admissions policy, and has that policy been publicized and disseminated widely?

[A / B+ / B / B- / C]

Comments

Perspective 2-2

Has the program adopted an appropriate method for accepting applicants based on its admissions policy, and is that method functioning substantively?

[A / B+ / B / B- / C]

Comments

Perspective 2-3

Is the program involved with initiatives to verify whether student acceptance is actually being carried out in accordance with the admissions policy, and are the results of those initiatives being used to improve the selection process?

[A / B+ / B / B- / C]

Comments

Perspective 2-4

Is the program publicizing itself to recruit talented students?

[A / B+ / B / B- / C]

Comments

3. Educational content and methods

[A / B+ / B / B- / C]

The program's educational content and methods are appropriate in order to train graduates who exhibit the qualities set forth in its objectives, and they are being implemented in an appropriate manner.

Perspective 3-1

Is the Leading Program's curriculum appropriate?

[A / B+ / B / B- / C]

Comments

Perspective 3-2

Is the curriculum being implemented in an appropriate manner?

[A / B+ / B / B- / C]

Comments

Perspective 3-3

Does the program provide a system that enables students to achieve program objectives while assessing their own progress on an ongoing basis?

[A / B+ / B / B- / C]

Comments

Perspective 3-4

Is the program's educational and research environment appropriate?

[A / B+ / B / B- / C]

Comments

Perspective 3-5

Does the program offer appropriate support structures for students?

[A / B+ / B / B- / C]

Comments

Perspective 3-6

Do students find the program satisfying?

[A / B+ / B / B- / C]

Comments

4. Educational quality assurance

[A / B+ / B / B- / C]

The program takes steps to assure the quality of the education it offers in an appropriate manner.

Perspective 4-1

Are the program's degree conferment standards appropriate?

[A / B+ / B / B- / C]

Comments

Perspective 4-2

Are the quality assurance standards appropriate when compared to social needs?

[A / B+ / B / B- / C]

Comments

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Perspective 4-3

Is the content of the qualifying examination appropriate, and is the examination offered in an appropriate manner?

[A / B+ / B / B- / C]

Comments

Perspective 4-4

Is the content of the systematic review appropriate, and is the review offered in an appropriate manner?

[A / B+ / B / B- / C]

Comments

Perspective 4-5

Are student research findings sufficient?

[A / B+ / B / B- / C]

Comments

Perspective 4-6

Are students making an adequate contribution to their employers?

(Not included in this evaluation)

Comments

Remarks about the exchange of views with students, other

Comments



Form completed by: _____

5.2 Program Evaluation Sheet (Overall Version)

Shinshu University Advanced Leading Graduate Program 2017 Academic Year Third-Party Evaluation Committee Program Evaluation Sheet (Overall Version)

Target dates: January 2017 to December 2017

Overall evaluation: [A / B+ / B / B- / C]

Evaluation items

- | | |
|-------------------------------------|-------------------------|
| 1. Program structures: | [A / B+ / B / B- / C] |
| 2. Admissions: | [A / B+ / B / B- / C] |
| 3. Educational content and methods: | [A / B+ / B / B- / C] |
| 4. Educational quality assurance: | [A / B+ / B / B- / C] |

General observations on program:

January 24, 2018

Evaluator
Name: _____ [SEAL]