アドバンスト・リベラルアーツ科目群

Global Resource Management

2025

履修要項

2025年度以降生用

同志社大学
Doshisha University

Ⅰ.GRM(グローバル・リソース・マネジメント)コースとは

1．はじめに

GRM コースは博士前期課程・後期課程所属の全大学院生を対象としたアドバンスト・リベラルアーツ科目群（※）の一部です。多様なバックグラウンドを持つ大学院生が専門分野や国籍の区別なく、英語で共修する点が大きな特徴です。科目等履修生である社会人と共修できる環境もあります。

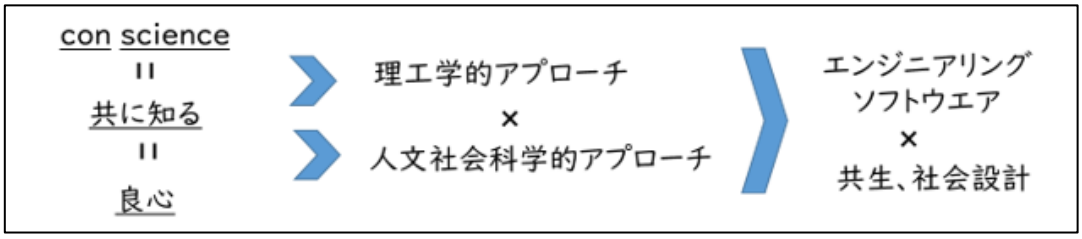
「リソース」を天然資源に限らず、人的資源・社会関連資本を含め広く定義し、それらの「リソース」を適切かつ公正に管理・運用することにより、共通リソースとしてのインフラストラクチャーを持続可能な発展と人々の平和と安寧のために構築・改善していくことをその本質に据えています。

不確実性の高い現代においては、ポジティブな発想で描く未来もありますが、困難な状況を克服してこそ見える未来もあります。世界が向き合う、社会を一変させるような困難から、私たちが学ぶべきことは実に多くあることでしょう。

困難に直面した際、それを避けずに思考を巡らせ、他者と共に克服するための「知恵」に加え、自身の専門分野外の基礎的な知識や「大学院レベルの高度なリテラシー」を身に付けることができるコースです。

2．人材養成目的

GRM コースでは、科学を実地に応用し、人間の生活に役立てることを目的とする技術を有するに留まらず、科学と科学、科学と技術、技術と技術を掛け合わせる「知恵」と人に寄り添う「良心」を有する人材、すなわち「Con エンジニア、イノベーター」を養成します。ここでいう技術には、人間関係構築、組織プロジェクト運営にかかる実践スキルを含みます。



3．カリキュラム・ポリシー

「学習計画を自分で設計すること」を基本とします。

必修科目にはオンサイト実習科目が含まれます。オンサイト実習により、「現地の実情と課題」に触れ、実践的な問題解決のための提案をグループで検討・策定します。習得すべき知識や開発すべき能力、必要な視点を認識し、以後の学習計画を自ら設計するための経験を得るために、できるだけ早期に履修することを推奨します。

選択科目では文理の区別なく、課題解決に必要となる分野横断的な知識や視点を幅広く学びます。得意な分野を学び更に伸長させることも、不足している分野の学習を深めることも可能です。

※ アドバンスト・リベラルアーツ(ALA)科目群

所属研究科で身につけた専門性を社会の場で活かせるように、大学院生に相応しい基盤的な能力を専門性とは別の観点から獲得することを目的として、分野・領域横断型教育を行う科目の集まりです。広い視野と高い精神を涵養するリベラルアーツ教育の理念にのっとり“良心”を精神的支柱として現代社会で活躍できる以下の能力を有する人物を育成します。

・普遍的な見方から全体像を捉える「俯瞰力」

・複数の専門知を組み合わせて文理融合の事象にアプローチできる「総合力」
・未来を読み解く「創造力」
・良心を支柱に人間社会の将来のあり方を示す「提案力」

特定の領域にとどまらない知識やスキル、複眼的な視野を身に付け、大学院修了後の進路選択やキャリア形成に役立ててください。

アドバンスト・リベラルアーツ科目群		
GRM コース	「次の環境」協創コース	Comm 5.0 – AI・データサイエンス副専攻プログラム
・困難を克服するための「知恵」の獲得 ・大学院レベルの高度なリテラシーの獲得 ・専門分野の壁を越え、英語で学ぶ	・自然科学と人文社会科学の融合 ・「大学」と「企業」の壁を越えた社会人との共修 ・社会実装を見据えたイノベーションの具現化	・Society 5.0 における新たな Communication と Community の在り方を考察する ・先端的情報工学技術の活用を学ぶ ・社会と連携した研究活動の実践

Ⅱ.GRM コースの履修

1.履修資格

博士課程の前期課程・後期課程に所属する全大学院生に履修資格がありますが、修得した単位の取扱いは、研究科毎に異なります。多くの研究科で課程修了に必要な単位に算入されますが、算入の可否、算入単位の上限等は、所属する研究科の履修要項で確認し、履修計画を立ててください。

2.履修手続

本コースは、1 科目から履修が可能です。所定の履修科目登録期間に DUET で登録してください。なお、「On-site Group Work」はオンサイト実習を伴うため 10 名程度の定員とし、登録者が多い場合には選考を行います。選考により履修できなくなった場合には、同時履修が必要な「On-site Group Work Introduction」と併せて、登録を削除することになります。

Ⅲ.GRM コースの修了

1.修了要件

必修科目 6 単位を含む 10 単位の修得が必要です。

2.修了に必要な期間

本コースは 1 年間での修了が可能です。また複数年かけて修了することも可能です。

博士前期課程・後期課程のいつからでも履修を開始できます。

3.修了判定

GRM 科目履修者にはコース修了の希望を調査し、修了希望者を対象にコース修了を判定します。コース修了可能者には、学修歴のデジタル証明であるオープンバッジの発行について案内します。

Ⅳ.2025 年度 開講科目一覧（配当年次はすべて M1～）

必修／選択	科目コード	クラスコード	科目名	担当者	単位	期間	校地
必修	35650600	000	On-site Group Work Introduction	大西　有子	2	春学期	今出川
	35650601	000	On-site Group Work	大西　有子	2	春学期	今出川
	35650651	000	Seminar for Advanced Liberal Arts	大西　有子 内藤　正典	2	秋学期	今出川
選択	35650611	000	Resource Management for Coexistence and Cultural Diversity	小山田　英治 稲葉　稔 長岡　直人 千田　二郎 八木　匡 濱　真一郎 大西　有子	2	春学期	リアルタイムオンライン
	35650621	000	Mathematics and Physics as Liberal Arts	Camille-faith PASCUA ROMERO	2	春学期	リアルタイムオンライン
	35650622	000	Infrastructure Design for Human Communities	Camille-faith PASCUA ROMERO	2	秋学期	リアルタイムオンライン
	35650623	000	Environmental Earth Science as Liberal Arts	大西　有子	2	秋学期集中	リアルタイムオンライン
	35650624	000	Global Resource Management: Interdisciplinary Approach 1 -Climate Change-	大西　有子	2	春学期集中	リアルタイムオンライン
	35650634	000	Global Resource Management: Interdisciplinary Approach 2 -Cocreation and Transdisciplinary-	大西　有子	2	秋学期集中	リアルタイムオンライン
	35650625	000	Global Resource Management and Sustainable Development Goals1	大西　有子	2	春学期	今出川
	35650635	000	Global Resource Management and Sustainable Development Goals 2	大西　有子	2	秋学期	今出川
	35650631	000	Global Resource Management and International Relations	Seifudein ADEM	2	春学期	リアルタイムオンライン
	35650632	000	Research Methods of Social Sciences	Seifudein ADEM	2	秋学期	リアルタイムオンライン
	35650633	000	Global Society in the Modern World	小山田　英治	2	秋学期集中	今出川
	35650641	000	GRM Topics 1 -Natural Hazards and Disaster Management-	松川　杏寧	2	春学期集中	今出川
	35650642	000	GRM Topics 2 -Topics in Mathematics for Information and Data Sciences-	徳山　豪	2	春学期集中	今出川
	35650643	000	Capacity Development for Coexistence and Cooperative Works	上田　光明	2	春学期集中	今出川
	35650644	000	Introductory Laboratory of Infrastructures	池田　陽紀	2	春学期	京田辺

・授業は英語で行われますが、履修生の語学力を考慮して、部分的に日本語で行われることもあります。
・履修生の通学校地のバランス等により校地を変更する可能性があります。
・集中講義以外の教室で行われる科目について、オンデマンド配信の授業（1 週目の DO Week 等）の有無はシラバスで確認してください。配信授業がない場合は科目担当者が別途、日程を設定します。
・「On-site Group Work」は「On-site Group Work Introduction」と同時履修が必要です。
・「Introductory Laboratory of Infrastructures」は実習科目のため週 4 時間、他は週 2 時間授業です。

Ⅴ. 2025 年度開講科目の概要

On-site Group Introduction	The "On-site Group Work" course provides students opportunities to study abroad and examine various sustainability issues from multidimensional perspectives. This course provides an introduction to the "On-site Group Work" course and is composed of a series of lectures and students' activities, which are designed to enable students to prepare themselves for the field study. Students will examine the region that they will visit from technological, scientific, cultural, and policy perspectives. The details about the region and the students' assignments will be announced at the first lecture. As the students from different campuses are expected to join, this course is offered mostly online. However, there are three days (afternoons) that the students are expected to meet face-to-face.

On-site Group Work	We are currently facing a significant and complex global resource crisis, to which effective solutions are urgently sought at from international to local levels, by integrating all relevant knowledge, expertise, interests, and aspirations through interdisciplinary and transdisciplinary collaboration. This course, offered as a compulsory component for the Global Resource Management Program, provides the students with hands-on experience of interdisciplinary and transdisciplinary collaboration to examine key sustainability challenges at multi-levels and from multidimensional perspectives. Students with different expertise and experience will exchange ideas and implement a group project with practitioners (i.e. workers in the private company). The course consists of a field trip and a final presentation. The field trip includes visits to foreign universities, international and public institutions, and private companies, where students learn and discuss about recent research and actions/measures from technological, scientific, cultural, and policy perspectives. The theme for 2025 is: Addressing sustainability challenges through interdisciplinary and participatory approach. This course must be undertaken in conjunction with the course: On-site Group Work Introduction. The details of the field trip will be announced at the first lecture of "On-site Group Work Introduction". This course is supported by Daikin Industries Ltd.

Seminar for Advanced Liberal Arts	This seminar presents contemporary issues surrounding our society and explores how to solve them. The seminar consists of a series of lectures by distinguished visiting professors. The guest lecturers are individuals who have been active at the forefront of the world for many years, such as ex-diplomat and officers at international organizations. Through discussions with them, students will acquire the literacy and broad perspective to understand what is happening in the "current" world. The seminar is available for graduate students in any disciplines. A wide range of the topics are covered in the lectures such as international security, nuclear powers, conflicts in the Middle East, and global environmental issues.

Resource Management for Coexistence and Cultural Diversity	In this course, students will learn the interpretation of “resource” and how we can translate problems with this concept. Lectures will be delivered by all different professors in each time and explain how the concept of “resource” can be adapted in each field. Lectures will also explain how the proper management of “resources” could contribute to solve problems of their field. The course is delivered with the relayed lecture style in order to cover wide range of topics: both social and natural science.

Mathematics and Physics as Liberal Arts	The course aims at giving students enough knowledge in physics to understand artificial social infrastructure and natural environment. It puts particular emphasis on electrical energy explaining how electrical power is generated, transported, distributed and utilized by people. Demonstration employing small scale models of electrical generators, fluid machines and motors should enhance students’ understanding of energy conversion. Simple mathematical formulations of fundamental physics rules are given, but the course does not necessarily require high mathematical skills and abilities of students.

Infrastructure Design for Human Communities	Infrastructure is the foundation of any kind of activities of human community. Knowledge on how these components of infrastructure are integrated provides a viewpoint indispensable to make further study on resource management for non-engineering major graduate students. As a basic level course, this course puts more emphasis on how to understand the logics and basic methodologies required for planning and designing of infrastructures, rather than obtaining individual knowledge. The course puts more emphasis on actually solving problems, rather than just memorizing formulae, for a student to obtain some idea of thinking as an engineer.

Environmental Earth Science as Liberal Arts	This course introduces graduate students, regardless of their background, to scientific perspectives on environmental systems of the earth. It will cover fundamental and important concepts in understanding the processes shaping the Earth and affecting its resources, in particular, the climate, surface, and biological processes. It will take a closer look at functioning and variations of biological resources through field observations in the Kyoto Botanical Garden.

Global Resource Management: Interdisciplinary Approach I -Climate Change-	The global climate is changing and urgent actions are needed to prevent us from the unexpected disasters and harmful impacts. The course will first look at how the climate has been changing and why this has been happening. It will then examine various impacts and measures being taken to address climate change.

Global Resource Management: Interdisciplinary Approach 2 -Cocreation and Transdisciplinary-	Our society faces various global resource crisis, which is difficult to be solved because a wide range of people are involved in various ways and have different interests. To address the issue, it is important that the stakeholders collaborate together and work out effective and appropriate solutions. However, collaboration among people with different backgrounds and interests is often a great challenge as we don't normally meet and work with others working/studying in different expertise/disciplines. In this course, students will develop skills for interdisciplinary collaboration by learning about the theories and case studies and through group discussions.

Global Resource Management and Sustainable Development Goals I	The Sustainable Development Goals were adopted by the United Nations in 2015, which include 17 goals encompassing natural, social, and economic sectors. This course introduces various topics related to SDGs on natural resources, which are considered as a basis for social and economic goals. It is structured as an interdisciplinary course, with lectures consisting of scientific backgrounds to the problem, the past and current status of the situation, and international/national responses (e.g. Policies, legislations, assessments.)

Global Resource Management and Sustainable Development Goals2	The Sustainable Development Goals were adopted by the United Nations in 2015, which include 17 goals encompassing natural, social, and economic sectors. This course aims at consolidating students' knowledge on SDGs and building their capacity to deliver their learning. Students will undertake activities facilitated by the course lecturer, through with they will develop ideas for achieving SDGs. Students from any countries and disciplines are welcome and they will be exchanging their knowledge and experience on the issues related to SDGs. They will also work on the group project, which will be presented in a local SDGs event in northern Kyoto.

Global Resource Management and International Relations	This course reviews contending theories of International Relations (IR) by scrutinizing the basic concepts of each theory, its core, and auxiliary propositions, and its underlying assumptions. The course also applies each theory to contemporary history.

Research Methods of Social Sciences	Theoretical perspectives about the social sciences had for long viewed cultures and civilizations through a vertical divide–as stratified and hierarchical. Culture had been thus marginalized as an important variable for understanding relations between societies. We join the growing intellectual trend by highlighting the relevance of cultural forces for a deeper understanding of the dynamics within societies and the relationships among them.

Global Society in the Modern World	This course will look at the global issues of today (gap between the rich and poor, migration across national borders, religious and cultural coexistence, refugees, human security and others), examine the causes and impact of these issues, and find possible measures. Furthermore, in-depth understanding on key perspectives needed in the study of global issues will be gained. While developing knowledge through actual case studies and insights from practitioners, analysis of corrective measures will be done.

GRM Topics I -Natural Hazards and Disaster Management-	Disasters are social phenomena, and the magnitude of the damage and the process of recovery and reconstruction resulting from them are influenced by the vulnerability of society, pre-disaster measures taken by society and legal systems, and the response during disaster occurrence. This lecture aims to examine the current state of disaster-related legislation in Japan and disaster preparedness and response based on it, using recent examples and issues from disasters.

GRM Topics 2 –Topics in Mathematics for Information and Data Sciences–	Learn how mathematics is used to develop information technology and data science. The lecturer will talk his own experiences in his career, give some puzzles, and solve problems together in the class to understand how mathematics is useful in real life. Mathematical knowledge is not required, but students are suggested to study (say, search Wikipedia) about the topics given in the lectures after each lecture to have deeper understanding. Students are requested to write short report of their study.

Capacity Development for Coexistence and Cooperative Works	This course is designed to design their own career paths in the globalized world, and obtain necessary skills which might be needed when searching jobs. Besides the lectures which will be given by the lecturer who is in charge of this class, there will be guest speakers and trainers. The guests will talk about not only their first hand work experiences, but also share their personal insights about how PhD students could make best use of their time in university in terms of career path and how they can design their own career.

Introductory Laboratory of Infrastructures	A knowledge and technics about an electrical construction, a plumbing construction, and road construction are useful to engage for some work such as a restoration of infrastructures and a construction of life line at a country with insufficient infrastructure, such as disaster-stricken areas or conflict areas. In the class, learn about the tools and equipment which can be use in individual level, and the basics of electrical construction, by experiment using actual equipment.

Ⅵ.その他

◆ GRM コモンルームの利用について

履修生の学習環境充実のため、今出川校地・京田辺校地に「GRM コモンルーム」を設置しています。場所はそれぞれ、今出川校地：烏丸キャンパス 志高館 2F／京田辺校地：京田辺キャンパス 訪知館 1F にあります。コモンルームは、両校地をオンラインで繋ぎ遠隔授業教室として利用する他、ノート PC や A4 プリンタ(白黒)を備え付けています。利用の際は以下の点に注意してください。

・コモンルームへの入室には、学生証が必要です。

・利用可能な日時は、原則として事務室開室期間のうち月曜～金曜の 9 時-17 時です。

・コモンルームで授業や講演会が実施される場合、個人利用はできません。

・機器保全の観点からコモンルームでの飲食は禁止します。

※その他、利用に際しての不明な点は高等研究教育院事務室まで問い合わせください。

時間割表 2025 春学期

GRM Class Table 2025 Spring

SKCMR: Shikokan Common Room, HCCMR: Hochikan Common Room

	Mon	Tue	Wed		Thu	Fri	Sat
1st	Global Resource Management and International Relations Adem Real-time Online						
2nd		GRM and Sustainable Development Goals I Onishi SKCMR@Imadegawa			Mathematics and Pysics as Liberal Arts Romero Real-time Online		Resource Management Oyamada & Others Real-time Online
3rd			<Intensive> On-site Group Work introduction		<Intensive> GRM: Interdisciplinary Approach I		<Intensive> Capacity Development for Coexistence and Cooperative Works
4th			Onishi SKCMR@Imadegawa	Introductory Laboratory of Infrastructures (※ Every Week)	Onishi Reeal-time Online		Ueda Imadegawa@SKCMR
5th				Ikeda HCCMR@Kyotanabe			

<Intensive>

On-site Group Work Introduction	On-site Group Work	GRM Topics 1-Natural Hazards and Disaster Management	GRM Topics 2-Topics in Mathematics for Information	GRM Interdisciplinary Approach I	Capacity Development for Coexistence and Cooperative Works
Onishi	Onishi	Matsukawa	Tokuyama	Onishi	Ueda
Imadegawa	Imadegawa	Imadegawa	Imadegawa	Real-time Online	Imadegawa@SKCMR
Wednesday 3-4 *Check the syllabus for the schedule	To be announced	August 4,5,6,	July 29,30,31,	Thursday 3-4 *Check the syllabus for the schedule	4/12(Sat) 3-4 4 /26(Sat) 3-4 5/17(Sat) 3-4 5/31(Sat) 3-4 6/14(Sat) 3-4 6/28(Sat) 3-4 7/12(Sat) 3

※最新情報はDUETやウェブサイトでご確認ください。

時間割表 2025 秋学期

GRM Class Table 2025 Fall

SKCMR: Shikokan Common Room, HCCMR: Hochikan Common Room

	Mon	Tue	Wed	Thu	Fri	Sat
1st						
2nd		GRM and Sustainable Development Goals 2 Onishi SKCMR@Imadegawa			Infrastructure Design for Human Communities Romero Real-time Online	
3rd				<Intensive> GRM: Interdisciplinary Approach 2	<Intensive> Environmental Earth Science as Liberal Arts	
4th			<Intensive> Seminar for Advanced Liberal Arts	Onishi Real-time Online	Onishi SKCMR@Imadegawa	
5th			Onishi / Naito SKCMR@Imadegawa			
6th		Research Methods of Social Sciences Adem Real-time Online				

<Intensive>

Seminar for Advanced Liberal Arts	GRM: Interdisciiplinary Approach 2	Global Society in the Modern World	Environmental Earth Science as Liberal Arts
Onishi/Naito	Onishi	Oyamada	Onishi
Imadegawa	Real-time Online	Imadegawa	Imadegawa
Wednesday 4-5 *Check the syllabus for the schedule	Thursday 3-4 *Check the syllabus for the schedule	To be announced	Friday 3-4 *Check the syllabus for the schedule

※最新情報はDUETやウェブサイトでご確認ください。

【問合せ・連絡先】

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