

Doctoral Program in Clinical Sciences

Common Subjects

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
02EX002	Introduction to Medical Research	1	1.0	1, 2	SprAB	Thu/Fri 7, 8	4A203	Chair and Chief of the Academic Committee of Clinical Sciences, Tetsuaki Arai, Koichi Hashimoto, Hideo Tsurushima, Yuichi Hasegawa, Yoshihiro Arakawa	This course provides the opportunities for the students to learn the essential knowledge of the physical- and chemical-hazard, bio-hazard, information security, research ethics, and legal requirements, and also to understand how to use the research facilities and equipments on biomedical research.	Compulsory
02EX003	Seminar in Medical Sciences	2	3.0	1, 2	Annual	by appointment		Chair and Chief of the Academic Committee of Clinical Sciences	Students attend 3 or more designated 'seminars in medical sciences' and participate in discussion. In addition, students will deepen their understanding by reading original research papers in a related field, by conducting a discussion about its contents with their advising faculty, and by writing papers.	Compulsory
02EX004	Special Studies on Medical Sciences	2	2.0	1, 2	Annual	by appointment		Chair of Clinical Sciences, Research supervisors	Students learn fundamental knowledges required to set their PhD research subjects and how to obtain them under the instruction of their research supervisors. Then the students determine their research subjects as well as the methods to fulfill their research questions. The students then submit necessary applications for the PhD research, and make up a prospect for completing the dissertation.	Compulsory
02EX005	Special Practice in Medical Sciences	2	5.0	1, 2	Annual	by appointment		Chair of Clinical Sciences, Research supervisors	Students will learn how to analyze the research results and to understand the significance of the results under the supervision of professors. Students will also plan and perform the next research process and repeat this cycle.	Compulsory
02EX007	International Practical in Medical Sciences	1	3.0	1 - 4	Annual	by appointment		Shigeru Chiba	Through presentations of research results at international academic conferences and training abroad, students will acquire language ability and learn presentation methods while experiencing internationally recognizable research by holding discussions with researchers overseas. Furthermore, students will participate actively in discussion and educational research abroad as well as practice teaching in English.	Lectures are conducted in English.
02EX008	Seminar in Clinical Research	2	3.0	1, 2	Annual	by appointment		Chair of Clinical Sciences, All faculty members	To obtain the fundamental knowledge required to conduct clinical studies, students will read original research and review papers and become proficient in explaining their contents. In addition, students will learn how to apply such knowledge to their own research theme.	
02EX009	Advanced Seminar in Medical Sciences	1	3.0	1, 2	Annual	by appointment		Tetsuaki Arai, Faculty in Clinical Sciences	Students will attend lectures about the new concepts and technologies underlying research in the post-genome-era medical and biological sciences and will engage in discussions on their contents.	
02EX010	Lecture on Critical Path Research Management	1	2.0	1, 2	Fall IABC	Mon6, 7	4F204	Koichi Hashimoto, Hideo Tsurushima, Takahiro Kojima	This course aims to equip students with an understanding of the process of critical path research and translational research, so as to translate basic research findings more quickly and efficiently into medical practice.	Lectures are conducted in English.

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02EX011	Training in Medical Science Education	3	1.0	2, 3	Annual	by appointment		Chair of Clinical Sciences, Research supervisors	In this subject, students firstly need to understand i) the objectives of the student education of this Doctoral Program, and ii) the role of each course toward achieving the objectives. Then, the students will join in iii) preparing the syllabus of a certain course together with supervisors, iv) give lecture in the course, and v) evaluate participants in the course. The students will be evaluated by the participants of the course which you will join in.	
02EX013	Communication with foreign medical professionals	2	2.0	1, 2	Fall/ABC	Tue6		Yukiko Wagatsuma	This discussion seminar is open to all students in the medical program including international students. We will read current issue articles in publications such as Nature, and students will be encouraged to think about and express opinions about those issues. The focus will be the medical field and how it connects to broader social, economic, and political matters.	医学学系棟121で実施。 Lectures are conducted in English.
02EX014	English Topics in Science I	2	1.0	1 - 4	Spr/AB	Tue4		Bryan James Mathis	To reinforce English vocabulary and fluency in discussing scientific concepts in a diverse array of research fields while introducing cutting edge technologies. Students will develop critical thinking and questioning skills for use in conferences, presentations and daily scientific work.	Conducted in the classroom Gakkei to 463. Lectures are conducted in English.
02EX015	English Topics in Science II	2	1.0	1 - 4	Fall/AB	Tue4		Bryan James Mathis	To reinforce English vocabulary and fluency in discussing scientific concepts in a diverse array of research fields while introducing cutting edge technologies. Students will develop critical thinking and questioning skills for use in conferences, presentations and daily scientific work.	Conducted in the classroom Gakkei to 463. Lectures are conducted in English.

Specialized Sciences

Course Num	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Classroom	Instructor	Course Overview	Remarks
02EX259	Special Studies on Medical Sciences	2	2.0	1, 2	Annual	by appointment		Chair of Clinical Sciences, Research supervisors	To decide their future research direction and to finally prepare for publication of their research in a biomedical journal, students will study through practical discussion on the background, purpose, methods, results, discussion, and conclusions of ongoing research in each group.	Compulsory

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02EX260	Lecture and Discussion in Clinical Pathophysiology I	1	2.0	1, 2	SprABC	by appointment		Tetsuaki Arai, Shinji Sato, Hideyuki Sakurai, Tomonori Isobe, Hirokazu Tachikawa, Makoto Tanaka, Yoshiaki Inoue, Masato Homma, Tetsuhiro Maeno, Shoji Yokoya, Hiroyuki Kobayashi, Yukiko Wagatsuma, Masahiko Gosho, Koichi Hashimoto, Yoshihiro Arakawa, Tomoyoshi Koyanagi, Satoshi Matsusaka, Hiroyuki Ito, Hisashi Narimatsu, Norimasa Miyamoto	The aim of this course is to provide methods to access the pathophysiology of a variety of diseases. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX261	Lecture and Discussion in Clinical Pathophysiology II	1	2.0	1, 2	FallABC	by appointment		Tetsuaki Arai, Shinji Sato, Hideyuki Sakurai, Tomonori Isobe, Hirokazu Tachikawa, Makoto Tanaka, Yoshiaki Inoue, Masato Homma, Tetsuhiro Maeno, Shoji Yokoya, Hiroyuki Kobayashi, Yukiko Wagatsuma, Masahiko Gosho, Koichi Hashimoto, Yoshihiro Arakawa, Tomoyoshi Koyanagi, Satoshi Matsusaka, Hiroyuki Ito, Hisashi Narimatsu, Norimasa Miyamoto	The aim of this course is to provide methods to access the pathophysiology of a variety of diseases. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX262	Seminar in Clinical Pathophysiology I	2	2.0	1, 2	SprABC	by appointment		Tetsuaki Arai, Shinji Sato, Hideyuki Sakurai, Tomonori Isobe, Hirokazu Tachikawa, Makoto Tanaka, Yoshiaki Inoue, Masato Homma, Tetsuhiro Maeno, Shoji Yokoya, Hiroyuki Kobayashi, Yukiko Wagatsuma, Masahiko Gosho, Koichi Hashimoto, Yoshihiro Arakawa, Tomoyoshi Koyanagi, Satoshi Matsusaka, Hisashi Narimatsu, Norimasa Miyamoto, Hiroyuki Ito	The aim of this course is to provide methods to access the pathophysiology of a variety of diseases. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX263	Seminar in Clinical Pathophysiology II	2	2.0	1, 2	FallABC	by appointment		Tetsuaki Arai, Shinji Sato, Hideyuki Sakurai, Tomonori Isobe, Hirokazu Tachikawa, Makoto Tanaka, Yoshiaki Inoue, Masato Homma, Tetsuhiro Maeno, Shoji Yokoya, Hiroyuki Kobayashi, Yukiko Wagatsuma, Masahiko Gosho, Koichi Hashimoto, Yoshihiro Arakawa, Tomoyoshi Koyanagi, Satoshi Matsusaka, Hisashi Narimatsu, Norimasa Miyamoto, Hiroyuki Ito	The aim of this course is to provide methods to access the pathophysiology of a variety of diseases. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX264	Practice in Pathophysiology I	3	2.0	1, 2	SprABC	by appointment		Tetsuaki Arai, Shinji Sato, Hideyuki Sakurai, Tomonori Isobe, Hirokazu Tachikawa, Makoto Tanaka, Yoshiaki Inoue, Masato Homma, Tetsuhiro Maeno, Shoji Yokoya, Hiroyuki Kobayashi, Yukiko Wagatsuma, Masahiko Gosho, Koichi Hashimoto, Yoshihiro Arakawa, Tomoyoshi Koyanagi, Satoshi Matsusaka, Hisashi Narimatsu, Norimasa Miyamoto, Hiroyuki Ito	The aim of this course is to provide methods to access the pathophysiology of a variety of diseases. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX265	Practice in Pathophysiology II	3	2.0	1, 2	FallABC	by appointment		Tetsuaki Arai, Shinji Sato, Hideyuki Sakurai, Tomonori Isobe, Hirokazu Tachikawa, Makoto Tanaka, Yoshiaki Inoue, Masato Homma, Tetsuhiro Maeno, Shoji Yokoya, Hiroyuki Kobayashi, Yukiko Wagatsuma, Masahiko Gosho, Koichi Hashimoto, Yoshihiro Arakawa, Tomoyoshi Koyanagi, Satoshi Matsusaka, Hisashi Narimatsu, Norimasa Miyamoto, Hiroyuki Ito	The aim of this course is to provide methods to access the pathophysiology of a variety of diseases. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX270	Lecture and Discussion in Surgery I	1	2.0	1, 2	SprABC	by appointment		Hiroyuki Nishiyama, Tatsuya Oda, Yuji Hiramatsu, Masashi Yamazaki, Yukio Sato, Hideo Ichimura, Koji Masumoto, Mitsuru Sekido, Hisato Hara, Toyomi Satoh, Hiromi Hamada, Yoji Komatsu, Yuji Matsumaru, Tetsuro Oshika, Keiji Tabuchi, Hiroki Bukawa, Toru Yanagawa	The aim of this course is to provide methods to conduct research in surgery. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX271	Lecture and Discussion in Surgery II	1	2.0	1, 2	FallABC	by appointment		Hiroyuki Nishiyama, Tatsuya Oda, Yuji Hiramatsu, Masashi Yamazaki, Yukio Sato, Hideo Ichimura, Koji Masumoto, Mitsuru Sekido, Hisato Hara, Toyomi Satoh, Hiromi Hamada, Yoji Komatsu, Yuji Matsumaru, Tetsuro Oshika, Keiji Tabuchi, Hiroki Bukawa, Toru Yanagawa	The aim of this course is to provide methods to conduct research in surgery. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX272	Seminar in Surgery I	2	2.0	1, 2	SprABC	by appointment		Hiroyuki Nishiyama, Tatsuya Oda, Yuji Hiramatsu, Masashi Yamazaki, Yukio Sato, Hideo Ichimura, Koji Masumoto, Mitsuru Sekido, Hisato Hara, Toyomi Satoh, Hiromi Hamada, Yoji Komatsu, Yuji Matsumaru, Tetsuro Oshika, Keiji Tabuchi, Hiroki Bukawa, Toru Yanagawa	The aim of this course is to provide methods to conduct research in surgery. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX273	Seminar in Surgery II	2	2.0	1, 2	Fall IABC	by appointment		Hiroyuki Nishiyama, Tatsuya Oda, Yuji Hiramatsu, Masashi Yamazaki, Yukio Sato, Hideo Ichimura, Koji Masumoto, Mitsuru Sekido, Hisato Hara, Toyomi Satoh, Hiromi Hamada, Yoji Komatsu, Yuji Matsumaru, Tetsuro Oshika, Keiji Tabuchi, Hiroki Bukawa, Toru Yanagawa	The aim of this course is to provide methods to conduct research in surgery. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX274	Practice in Surgery I	3	2.0	1, 2	SprABC	by appointment		Hiroyuki Nishiyama, Tatsuya Oda, Yuji Hiramatsu, Masashi Yamazaki, Yukio Sato, Hideo Ichimura, Koji Masumoto, Mitsuru Sekido, Hisato Hara, Toyomi Satoh, Hiromi Hamada, Akira Matsumura, Yoji Komatsu, Yuji Matsumaru, Tetsuro Oshika, Keiji Tabuchi, Hiroki Bukawa, Toru Yanagawa	The aim of this course is to provide methods to conduct research in surgery. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX275	Practice in Surgery II	3	2.0	1, 2	Fall IABC	by appointment		Hiroyuki Nishiyama, Tatsuya Oda, Yuji Hiramatsu, Masashi Yamazaki, Yukio Sato, Hideo Ichimura, Koji Masumoto, Mitsuru Sekido, Hisato Hara, Toyomi Satoh, Hiromi Hamada, Yoji Komatsu, Yuji Matsumaru, Tetsuro Oshika, Keiji Tabuchi, Hiroki Bukawa, Toru Yanagawa	The aim of this course is to provide methods to conduct research in surgery. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX280	Lecture and Discussion in Internal Medicine I	1	2.0	1, 2	SprABC	by appointment		Shigeru Chiba, Junichi Shoda, Akinori Yanaka, Makoto Ohara, Kazutaka Aonuma, Masaki Ieda, akira koike, Akihiko Nogami, Satoshi Homma, Takashi Miyauchi, Nobuyuki Hizawa, Yukio Ishii, Hiroaki Satoh, Akira Tamaoka, Kunihiro Yamagata, Hitoshi Shimano, Hiroaki Yagyu, Takashi Matsuzaka, Yasushi Kawakami, Hidetoshi Takada, Hitoshi Horigome, Ikuo Sekine, Shigemi Hitomi	The aim of this course is to provide students with methods to conduct research in internal medicine. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX281	Lecture and Discussion in Internal Medicine II	1	2.0	1, 2	FallABC	by appointment		Shigeru Chiba, Junichi Shoda, Akinori Yanaka, Makoto Ohara, Kazutaka Aonuma, Masaki Ieda, akira koike, Akihiko Nogami, Satoshi Homma, Takashi Miyauchi, Nobuyuki Hizawa, Yukio Ishii, Hiroaki Satoh, Akira Tamaoka, Kunihiro Yamagata, Hitoshi Shimano, Hiroaki Yagyu, Takashi Matsuzaka, Yasushi Kawakami, Hidetoshi Takada, Hitoshi Horigome, Shigemi Hitomi, Ikuo Sekine	The aim of this course is to provide students with methods to conduct research in internal medicine. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX282	Seminar in Internal Medicine I	2	2.0	1, 2	SprABC	by appointment		Shigeru Chiba, Junichi Shoda, Akinori Yanaka, Makoto Ohara, Kazutaka Aonuma, Masaki Ieda, akira koike, Akihiko Nogami, Satoshi Homma, Takashi Miyauchi, Nobuyuki Hizawa, Yukio Ishii, Hiroaki Satoh, Akira Tamaoka, Kunihiro Yamagata, Hitoshi Shimano, Hiroaki Yagyu, Takashi Matsuzaka, Yasushi Kawakami, Hidetoshi Takada, Hitoshi Horigome, Shigemi Hitomi, Ikuo Sekine	The aim of this course is to provide students with methods to conduct research in internal medicine. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX283	Seminar in Internal Medicine II	2	2.0	1, 2	FallABC	by appointment		Shigeru Chiba, Junichi Shoda, Akinori Yanaka, Makoto Ohara, Kazutaka Aonuma, Masaki Ieda, akira koike, Akihiko Nogami, Satoshi Homma, Takashi Miyauchi, Nobuyuki Hizawa, Yukio Ishii, Hiroaki Satoh, Akira Tamaoka, Kunihiro Yamagata, Hitoshi Shimano, Hiroaki Yagyu, Takashi Matsuzaka, Yasushi Kawakami, Hidetoshi Takada, Hitoshi Horigome, Shigemi Hitomi, Ikuo Sekine	The aim of this course is to provide students with methods to conduct research in internal medicine. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX284	Practice in Internal Medicine I	3	2.0	1, 2	SprABC	by appointment		Shigeru Chiba, Junichi Shoda, Akinori Yanaka, Makoto Ohara, Kazutaka Aonuma, Masaki Ieda, akira koike, Akihiko Nogami, Satoshi Homma, Takashi Miyauchi, Nobuyuki Hizawa, Yukio Ishii, Hiroaki Satoh, Akira Tamaoka, Kunihiro Yamagata, Hitoshi Shimano, Hiroaki Yagyu, Takashi Matsuzaka, Yasushi Kawakami, Hidetoshi Takada, Hitoshi Horigome, Shigemi Hitomi, Ikuo Sekine	The aim of this course is to provide students with methods to conduct research in internal medicine. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX285	Practice in Internal Medicine II	3	2.0	1, 2	FallABC	by appointment		Shigeru Chiba, Junichi Shoda, Akinori Yanaka, Makoto Ohara, Kazutaka Aonuma, Masaki Ieda, akira koike, Akihiko Nogami, Satoshi Homma, Takashi Miyauchi, Nobuyuki Hizawa, Yukio Ishii, Hiroaki Satoh, Akira Tamaoka, Kunihiro Yamagata, Hitoshi Shimano, Hiroaki Yagyu, Takashi Matsuzaka, Yasushi Kawakami, Hidetoshi Takada, Hitoshi Horigome, Shigemi Hitomi, Ikuo Sekine	The aim of this course is to provide students with methods to conduct research in internal medicine. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX293	Lecture and Discussion in Social Medicine I	1	2.0	1, 2	SprABC	by appointment		Kazumasa Yamagishi, Tamaki Saito, Nanako Tamiya, Masahide Kondo	The aim of this course is to provide students with methods to conduct research in social medicine. Each listed professor will organize specific lectures and opportunities for discussion.	

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02EX294	Lecture and Discussion in Social Medicine II	1	2.0	1, 2	Fall/ABC	by appointment		Kazumasa Yamagishi, Tamaki Saito, Nanako Tamiya, Masahide Kondo	The aim of this course is to provide students with methods to conduct research in social medicine. Each listed professor will organize specific lectures and opportunities for discussion.	
02EX295	Seminar in Social Medicine I	2	2.0	1, 2	Spr/ABC	by appointment		Kazumasa Yamagishi, Tamaki Saito, Nanako Tamiya, Masahide Kondo	The aim of this seminar is for students to understand the purpose, methods, and results of the most recent research articles on a variety of aspects in social medicine. Moderated by each supervising professor, students will discuss the significance, problems, and future directions of the study.	
02EX296	Seminar in Social Medicine II	2	2.0	1, 2	Fall/ABC	by appointment		Kazumasa Yamagishi, Tamaki Saito, Nanako Tamiya, Masahide Kondo	The aim of this seminar is for students to understand the purpose, methods, and results of the most recent research articles on a variety of aspects in social medicine. Moderated by each supervising professor, students will discuss the significance, problems, and future directions of the study.	
02EX297	Practice in Social Medicine I	3	2.0	1, 2	Spr/ABC	by appointment		Kazumasa Yamagishi, Tamaki Saito, Nanako Tamiya, Masahide Kondo	The aim of this seminar is for students to understand the purpose, methods, and results of the most recent research articles on a variety of aspects in social medicine. Moderated by each supervising professor, students will discuss the significance, problems, and future directions of the study.	
02EX298	Practice in Social Medicine II	3	2.0	1, 2	Fall/ABC	by appointment		Kazumasa Yamagishi, Tamaki Saito, Nanako Tamiya, Masahide Kondo	The aim of this course is to provide students with the principles and methods of research in surgery. Each listed supervising professor will organize a specific field of research.	
02EX230	Methods in Clinical Trials	1	2.0	1, 2	Fall/AB	Tue7, 8	4F204	Yukiko Wagatsuma, Masahiko Goshō	The aim of this course is to teach students the principles and methods of clinical trials and to introduce good clinical practice (GCP).	
02EX231	Biostatistics, Basic	1	1.0	1, 2	Spr/AB	Wed3	4F204	Masahiko Goshō, Kazushi Maruo	The aim of this course is for students to learn the methods of sampling and statistical analysis frequently used in clinical research.	
02EX292	Biostatistics, Advanced	1	2.0	1, 2	Fall/AB	Wed4, 5	4F305	Masahiko Goshō, Kazushi Maruo	Students will learn about survival data analysis that is essential in medical research, and they will apply the method to real clinical data.	
02EX232	Biostatistics in Practice	3	1.0	1, 2	Spr/AB	Wed6, 7 Wed	4F305	Kazushi Maruo, Masahiko Goshō	This course provides practice in biostatistical analysis using a statistical analysis software.	授業時間は担当教員に確認のこと。
02EX290	Methods in Epidemiology	1	2.0	1, 2	Fall/AB	Tue3, 4	4F305	Yukiko Wagatsuma	The fundamental concepts and uses of epidemiology, and its role in formulating principles, are examined. Exercises are conducted in which epidemiological methods are utilized, to promote understanding of the practice of this discipline.	Compulsory