220731LaboratoryPolicy

◆ Policy of our laboratory
Implementation and education about (academic) **research**.

◆ Features of our laboratory: Differences from many others.

	Ours	Others
Research	<<Definition>> Not only the person himself, but also based on the accumulation of (academic) research up to that point, we will clarify things that were not known and new things (in some sense). <<Basis of Judgment>> **Critical examination** of previous researches and conventional technologies. <<Resources / accumulation>> Emphasis on **facts** / theories and utilization of **data** / theories. <<Action/attitude>> **Critical examination**, **hypothesis-verifying** examination, **logical reasoning**, **critical analysis**. <<External Attitude>> Description of processes, ability of expression and persuasion. Cultivation of professionals with a research mindset and research methods. * Ability to collect and accumulate facts, data, and theories that serve as the basis for judgments in various decisions. * Scientific knowledge can be used in various fields.	
Laboratory activities	Giving advice and proposals to students' **proposals** and **reports**. --- Students need to be **active** (think and prepare by themselves). Things do not progress in your state of waiting for instructions. Laboratory meetings are the main venues for reporting and **discussion** (open and sharing to lab members, learning from each other, etc.). --- No individual supportive guidance is provided. Daily activities such as **discussion and consultation**, mutual learning, and **mutual checking** among lab members are required. --- It is necessary to **persuade others** to gain their understanding and consent, and to increase the number of assenters and supporters (ability to persuade). Skill to report / present main points **in appropriate short and few words** is required (ability to express). --- Save other's time. In addition, prepare materials that can be explained when asked for more details such as log data.	
Thesis for a degree.	Master's thesis = Research thesis. --- Both the content value (**uniqueness / novelty** and **usefulness / benefit**) as research and the expressions that can convey information are required. Not an activity report (a list of actions). Think for yourself about the items (**information** / **fact** and **basis / data**) required for an (academic) research paper, so as to constantly collect and accumulate them. Emphasize on your **conclusions** and **assertions** --- Necessary work, evidence, and logics will differ	Research-like activity report. * Something done by yourself. * Some date obtained by yourself. - Not much considered on originality and novelty. - Not much examined on benefit and usefulness. Looks good.

	depending on these. Guidance (pointing out, advising, and suggesting) can be provided **after presenting your conclusions**, the rationale for the assertions, and the logics. --- Intermediate progress reports alone cannot be used for discussion, and impossible to judge whether it sufficient / insufficient or will be passed / failed. The ability to persuade (including the ability to set, collect and record **evidence information**, the ability to **critically analyze** the resulting data, etc.) is required. Necessary to be approved by **professional review** (acceptance in international conferences, academic journals, etc.). --- Your claims of originality / novelty and utility / benefit should be the same both inside and outside the laboratory. Use of **external experts**. Guidance (correction of sentences, detailed comments, etc.) will not be provided for each documents (including dissertations for degrees). --- Degrees are awarded based on **individual ability**. A master's thesis is an object for judging your abilities. Ability to apply and examine the items in the guidelines to your own manuscript is also required.	- No professionally reviewed.

◆ Providing a place for research and learning:
(1) "Learning/Studying Community":
The presence of seniors and fellow-peers as well as supervisors and instructors.
a) You can learn as many times as you like.
--- (When giving from a teacher to your classmates) you can listen to the explanations and review them many times, and you can have a simulated experience.
Look at other people's behavior, and change ourselves. One man's fault is another's lesson.
b) Peer review.
--- Critical review by fellow-peers.
c) Support.
--- They encourage you to work hard together.
Train each other to think critically with attention to detail.
(2) A place where you can learn not only "research methods" but also "the significance and value (goals) of research" and "the process of research refinement".
The presence of a supervisor / instructor who conducts research on his own and shows you the "ability to persevere" and the way of thinking.

◆Schedule for master's program

	Student	Supervisor
1st semester	Planning: --- Literature survey, training in necessary skills. Examination of issues, methods, tools, etc.	Advise/suggest
2nd semester	Primitive study: --- Realization, implementation, consideration of initial experiments and results, etc.	Advise/suggest
3rd semester	Practical study: --- Revision and expansion of primitive study, etc.	Advise/suggest
	"Research report" (equivalent to "Master's thesis"): --- writing and submitting to the lab. Official submission: --- to IPS office.	
4th semester	Finalizing study: --- Improvements, additions, supplements, etc.	Review
	External presentation: --- based on "Research report". Accepted by an international	

	conferences and/or academic journals. "Master's thesis" (thesis for a degree): --- Published on the Waseda Repository. Supporting materials: --- Original data, etc., Published on GitHub, etc. Official submission: --- to IPS office.	

◆Remarks
Only those who understand and can implement policy matters should be here.
Feel free to move to other graduate schools or other laboratories if you find it difficult.

◆当研究室の方針
（学術）研究について実施・教育をする．

◆当研究室の特徴：多くの他との違い

	当	他
研究	＜定義＞本人だけでなく，それまでの（学術）研究の蓄積をふまえても，知られていなかったことや（何らかの意味で）新しいことを明らかにする． ＜判断の根拠＞先行研究や従来技術の批判的吟味． ＜資源・蓄積＞事実・理論の重視とデータ・理論の活用． ＜行為・態度＞論理的・批判的吟味，仮説検証的な検討，論理的推論，批判的分析． ＜対外的態度＞過程を説明，表現力・説得力． 研究マインドと研究方法を身につけた専門職の養成． ＊さまざまな意思決定における判断根拠となる事実・データ・理論を収集蓄積できる． ＊科学的な知見をさまざまな現場で活用できる．	
研究室活動	学生からの提案や報告に対して助言や提言をする：学生の能動性が必要（自分で考えて自分で準備する）．指示待ち状態では物事は進展しない． 研究室ミーティングが主な報告と議論の場（メンバに公開・共有，学び合い，など）：個別指導・支援はおこなわない． 研究室メンバ間の議論・相談，相互学習，相互チェックなどを常に頻繁におこなう日常的な活動が必要：相手を説得して理解・納得してもらう，同意者・賛同者を増やしてゆく行動が必要（説得能力）． 適切な少ない言葉で要点を報告する技術が必要（表現能力）：相手が費やす時間を短くする．詳細を尋ねられたら説明できる資料を用意しておく．	
学位請求論文	修士論文＝研究論文：研究内容としての価値（独自性・新規性と有用性・有益性）と情報伝達できる表現が必要．活動報告（行動の羅列）ではない． 研究論文として必要な事項（情報や根拠）を，自分で考えて，常に収集し蓄積する必要がある． 結論や主張を重視する：これらに依存してそこに至るまでに必要な作業や根拠情報，説得論理の構造などが異なる．	研究らしき活動報告． ・自分で何かおこなった． ・自分で何かデータを得た． 独自性・新規性の検討があまりない． 有益性・有用性の検討があまりない． 見た目が整っていること

	指導（指摘，助言，提言）は，結論や主張の根拠情報や説得論理が提示された後にできる：途中経過だけでは議論ができず，十分／不十分や合格／不合格は判断できない. 説得する能力（根拠情報を設定して収集・記録する能力，結果データを批判的分析する能力，などが含まれる）が要求される. 専門的な審査で認められていること（国際会議や学術誌での acceptance など）が要求される：独自性・新規性と有用性・有益性の主張は研究室の内外で同じはず．学外の専門家を利用. 文書（学位請求論文を含む）の細部に対する指導（文章の添削や詳細な指摘など）はおこなわない：学位は個人の能力に対して与えられる．修士論文はあなたの能力を審査する対象物．ガイドラインの項目を自分自身に当てはめて自分で検討する能力.	が必要. 専門的な審査がおこなわれない.

◆研究と学びの場の提供
（1）「学びの共同体」：　指導者だけでなく先輩や仲間 peer の存在.
　a)何度でも学べる：　（教員から同級生へ）何度も説明を聞いて復習でき，擬似体験ができる．他人の振り見て我が振り直す.
　b)ピアレビュー（peer review）：　仲間同士での批判的レビュー.
　c)サポート：一緒に頑張ろうと励ましてくれる．お互いに，細部にこだわって批判的に考える訓練.
（2）「研究方法」だけでなく「研究の意義や価値（ゴール）」「研究推敲過程」まで学べる場.
　自ら研究をしていて「やり抜く力」や考え方を間近に見せてくれる指導者の存在.

◆スケジュール

	学生	指導員
第 1 学期	Planning: --- 文献調査，必要技能の訓練，課題・方法・道具の検討，など.	助言／提言
第 2 学期	Primitive study: --- 具現化，実装化，初期実験・結果の考察，など.	助言／提言
第 3 学期	Practical study: --- Primitive study の見直し・拡張，など.	助言／提言
	"研究報告書"（≒学位請求論文）: --- 作成と提出. 公式提出: --- IPS 事務室へ.	
第 4 学期	Finalizing study: --- 改良・追加・補足など.	審査
	対外発表: --- "研究報告書"にもとづく．国際会議や学術誌での受理. 学位請求論文: --- 作成と提出．早稲田リポジトリにて公開. 根拠資料: --- オリジナルデータなど．GitHub などで公開. 公式提出: --- IPS 事務室へ.	

◆その他
方針事項を了解して実施できるものだけがここにいるべき.
むずかしいと思われたら遠慮なく他の研究科や他の研究室へ.