# Teaching Portfolio（ティーチング・ポートフォリオ）と
# 自己評価報告書（教育活動）との対比

# Characteristics of the Teaching Portfolios:
# Difference from Teaching Records in Japan

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**【要　　旨】**

　Teaching Portfolio（ティーチング・ポートフォリオ）とは、大学教員が授業を振り返り、その成果を自己評価しながら、Teaching Philosophy（教育哲学）などを確立して、授業改善へと結びつけるための書類であり、カナダをはじめ欧米で普及しつつある。一方、「自己評価報告書（教育活動）」は自己評価の一環として、弘前大学医学部医学科・附属病院の教員が毎年作成している書類で、担当授業や学生からの授業評価を記録している。両者の差違を対比しつつ、具体例を示しながらTeaching Portfolioの特徴を概説する。

**【はじめに】**

　国立大学法人化に際して、各国立大学は教育研究水準の向上を図り、これまで以上に人材育成と社会貢献を求められるようになった。その原則は弘前大学においても求められ、平成16年度からの5年間の中期目標・中期計画の一つとして、「教育活動の評価及び評価結果を教育の質の改善につなげるための具体的方策」が取られることとなっている。大学設置基準第25条2項では、「大学は、当該大学の授業の内容及び方法の改善を図るために組織的な研修及び研究の実施に努めなければならない」と掲げられており、弘前大学ではこの具体的方策の重要課題として、弘前大学オリジナルのTeaching Portfolioを創成し、導入する予定である。

　Teaching Portfolioは、いわゆる「教員による教育活動全般に関する自己評価申告記録」であり、この記録を更新してゆくことにより授業内容や教育方法に対する継続的な改善が行われ、教員の教育能力の向上が図られる効果を有している[1]。本稿では、具体例を示しながらTeaching Portfolioの特徴を概説する。また、教員自己評価の一環として、弘前大学医学部医学科・附属病院の教員が毎年作成している「自己評価報告書（教育活動）」を紹介しつつ、Teaching Portfolioとの差違を対比する。

**【Teaching Portfolio】**

　Teaching Portfolioの様式は大まかな枠組みが存在し（表1）、カナダのダルハウジー大学（Centre for Learning and Teaching, Dalhousie University, Halifax, Nova Scotia）では、Teaching Portfolioの基本

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＊＊人文学部
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　Faculty Development Office, Center for 21st Century Education, Hirosaki University

## 表 1：Teaching Portfolio / Dossier の構成

1. Summary of Teaching Responsibilities
2. Reflective Statement on Teaching Philosophy, Practices, and Goals
3. Course Development and Modification
4. Development of Teaching Materials
5. Products of Good Teaching
6. Description of Steps Taken to Evaluate and Improve Your Teaching
7. Presentations, Research, and Publications on Teaching
8. Administrative and Committee Work Related to Teaching
9. Information from Students
10. Information from Colleagues
11. Information from Other Sources

## 表 2：Teaching Philosophy の定義と意義

Definition of Teaching Philosophy

　　A teaching philosophy statement is a systematic and critical rationale that focuses on the important components defining effective teaching and learning in a particular discipline and/or institution.

Purpose of Teaching Philosophy

For yourself:
　　Self-reflection
　　Provide a record of teaching development over time
　　Provide a rationale for your teaching
　　Articulate ideas about teaching with others
For the evaluator of your dossier:
　　What do you do?  Why do you do it?  In what context?
　　How are these elements congruent with one another?

様式をホームページ上で公開しているが[2]、作成者のオリジナリティである程度自由に記載可能なようである。記載内容は、担当授業概要、カリキュラムや教育材料の改善・開発など、客観的な記載事項がある一方で、Teaching Philosophy（教育哲学）や将来の目標など、教員個人としての指針・あり方を記載する事項も含まれている[3]。学生からのフィードバックは、大学が施行する公式の授業評価に加えて、学生からの非公式な情報（メールなど）を匿名化して加えることもでき、これは授業評価に現れてこないような点も主張する意味があるのだろう。

　著者4人はカナダのダルハウジー大学で開催されたワークショップに参加する機会を与えられ、欧米で導入されているTeaching Portfolioの意義のみならず、その作成過程を体験することができた。前述の通りTeaching Portfolioは、作成者により内容は様々であるが、量的には概ねA4用紙10ページ前後（6〜12ページ）で構成されて、教育活動に対する自己評価申告記録ゆえに各項目とも無駄なく記載される。このTeaching Portfolioの基幹をなす項目が、Teaching Philosophy（適切な和訳がないが、教育哲学とでも表現すべき項目）である。表2に、Teaching Philosophyの定義と意義が示されているが、これは教育効果の高い授業や学習を行うための系統的かつ理論的な根拠であると定義されている。それゆえに参加したワークショップでは、Teaching Philosophyは、これまでの教育実績をふまえて、将来目標を見据えつつ、教員個人のあり方を示す事項であるので、それについて適切に表現するために特に重点的に記載すべきであると、強調された（概ねA4用紙1〜2ページ程度）。Teaching Philosophyは、教員が担当する授業が、当該大学の中でどのような位置づけにあるのか、その専門分野の中でどのような重要性を占めるのか（例えば、医学教育の中における病理学授業の重要性）をも含むべきである。Teaching Philosophyが含む内容から、それを「教育方針」などと訳すことも可能であるが、この場合にもあくまでも所属する大学自体の教育方針をふまえた、教員の方針であることは当然のことであろう。

　表3に、ダルハウジー大学ワークショップRecording Teaching Accomplishment Instituteのスケジュールが示されているが、ワークショップではTeaching Portfolioの意義・構成を含めた概要の説明（Introductory Workshop）に続いて、参加者各自がTeaching Portfolioを作成する段階に入る（Individual dossier/portfolio development）。作成者は、Teaching Portfolioの構成骨子を決めた後、その基幹となる

## 表3：ダルハウジー大学ワークショップのスケジュール

Recording Teaching Accomplishment Institute Centre for Learning and Teaching, Dalhousie University
May 29 to June 2, 2006
Schedule

Monday, May 29

9:00am - 12:00 noon, Room 2616, Killam Library
Introductory Workshop

12:00 noon - 1:00 pm
Lunch, CLT Office, Room G90, Killam Library

1:00 pm
Individual dossier/portfolio development

Tuesday, May 30

9:00 am - 4:00 pm
Individual consultations with facilitators, individual dossier/portfolio development

Wednesday, May 31

9:00 am - 12:00 noon
Individual consultations with facilitators will continue

1:30 pm - 4:00 pm, Room 2616, Killam Library
Workshop: Evaluating Portfolios for Hiring and Tenure & Promotion
Peer consultation

Thursday, June 1

9:00 am - 4:00 pm
Second round of individual consultations with facilitators

Friday, June 2

9:00 am - 12:00 noon
Second round of individual consultations with facilitators will continue

12:00 noon - 2:30 pm
Closing Luncheon, Board Room, University Club
Presentation of Certificates of Completion

## 表4：　教育評価と学術的活動

Trends in evaluating teaching
1. Context counts: consider teaching priorities and goals of department, school, discipline, institution
2. Use multiple sources of evidence
3. Define and apply criteria and standards
4. Employ same methods used to evaluate other forms of scholarship

Characteristics of Scholarly Work
1. The activity requires a high level of discipline expertise
2. The activity breaks new ground or is innovative
3. The activity can be replicated and elaborated
4. The work and its results can be documented
5. The work and its results can be peer reviewed
6. The activity has significance or impact
　　　　　　　　　(Diamond R, Adam B, 1993)

Standard of Scholarly Work
1. Clear Goals
2. Adequate preparation
3. Appropriate methods
4. Significant results
5. Effective presentation
6. Reflective critique
　　　　　　　　　(Glassick C, Huber MT, Maeroff G, 1997)

Teaching Philosophyの記載に力を注ぐこととなる。Facilitators（講師、タスクフォースに相当）とアポイントメントを取り、1時間余りの相談・討議も行われる（Individual consultations with facilitators, individual dossier/portfolio development）。ワークショップ3日目（5日間の中日）には、すべての参加者が再び集い教育評価に関する討議が行われた（Workshop: Evaluating Portfolios for Hiring and Tenure & Promotion）。欧米における教育評価は、授業で優先すべき事項や大学・学部の目標を考慮する、偏らないように複数の根拠を用いる、判断基準を明確にするなどを踏まえることであり、このことはわが国の現状と共通している（表4）。さらに、大学で行うべき学術的活動（Scholarly work）についても示さ

れた[4]。３日目の全体討論のあとは、参加者がペアを組み、２人で作成中のTeaching Portfolio について
お互い意見交換を行った（Peer consultation）。Teaching Portfolio は、授業に対する自己評価を行いつ
つ、授業改善へと結びつけるための書類である一方で、欧米では採用・昇格などにも使われる書類であ
ることから、専門外の人にもわかりやすい表現で記載することは不可欠である[1]。このため、作成段階
における意見交換（Peer consultation）は重要なことであろう。ワークショップ後半にも、facilitators と１時
間余りの相談・討議も行われ、Teaching Portfolio の完成度を上げてゆく（Second round of individual
consultations with facilitators, individual dossier/portfolio development）。このような足掛け５日間の
日程を経て、Teaching Portfolio が段階的に完成され、ワークショップは終了となる（Presentation of
Certificates of Completion）。

　著者（鬼島）が作成したTeaching Portfolio を具体例として、提示する（本稿末尾　表８）。A4用紙12
ポイント使用11ページで構成され、各事項は概ね以下のごとくであり、参考とされたい：表紙（１ペー
ジ）、目次（１ページ）、Teaching Philosophy（２ページ）、Summary of Teaching Responsibility（担当
授業の概要、２ページ）、Course Development and Modification / Development of Teaching Materials
（カリキュラムおよび教材の開発、1.5ページ）、Professional Development / Administrative Work Re-
lated to Teaching（授業改善への努力、１ページ）、Information from Students（学生からの情報、１
ページ）、Future Teaching Goals（将来の目標、１ページ）、文献（0.5ページ）。

## 【自己評価報告書（教育活動）】

　教員自己評価の一環として、弘前大学医学部医学科・附属病院の各教員が作成している自己評価報告
書（教育活動）は、弘前大学医学部医学科・附属病院自己評価委員会の記入様式に基づき記載が行われ
ている（本稿末尾　表７）[5]。報告書は、A. 教育の到達度と目標と、B. 教育実績の２部より構成される。
A項の教育の到達度と目標は、「２年前に設定した目標に対する到達度」と「これから２年間の目標」と
を、各々数行～10行程度にまとめて、その概略を説明する。B項の教育実績は、この報告書の主要構成
要素であり、大学・大学院における担当講義に加えて、ファカルティ・ディベロップメントへの参加、
他学部・他大学・他施設における講義、学生授業出席状況、学生による授業評価を記載する。またB項
の教育実績は表形式を採用して、記入者の便宜をはかるのみならず、記入漏れを防ぐ様式となっている。

　このように自己評価報告書（教育活動）は、毎年実践している教育活動の具体的な報告に主眼がおか
れ、それに対する中期的な（２年間単位）の反省と目標が加えられるという形式を取っている。

## 【Teaching Portfolio 導入に対する考察】

　Teaching Portfolio・自己評価報告書（教育活動）ともに、大学教員の教育活動の改善につなげるため
の目標を有する点では、共通している。但し、両者を比較すると少なからずの差異が見られる（表５）。
自己評価報告書では、0.5ページ程度で「教育の到達度と目標」を記すが、これは量的にも合わせて0.5
ページ程度で、２年間単位の反省と目標を簡潔に示すものである。むしろ、自己評価報告書では、担当
授業など教育実績の客観的記載が主体となっており、「現状を示す自己評価」といえる。一方、Teach-
ing Portfolio では、自己評価報告書の内容に加えて、(a) Teaching Philosophy（教育哲学）、(b) 授業・
教育材料の工夫と改善、(c) 将来の教育目標といった項目が加わり、これらの記載に相当の力が注がれ
ることとなる。つまり教育実績をふまえ、教員として将来のあり方を考えることとなるため、Teaching
Portfolio は各教員の特色が表現される「前向きの自己評価」といえる。

　ダルハウジー大学のワークショップでTeaching Portfolio を作成した段階で、特にTeaching Philosophy
を記載する際に、facilitator から強調された留意点は、(A) 教育実績と教育に関する努力を表現する
（読み手が容易に理解・把握できるように具体的な内容で）、(B) 授業内容が実社会でどのような意義
を持つかを明確にする、(C) 学生の視点を記載する（学生がどのように授業に参加しているか、実習な

**表5：Teaching Portfolio と自己評価報告書（教育活動）との対比**

1. Teaching Philosophy（教育哲学）
    1.1 大学における担当授業の位置づけ・意義
    1.2 学習段階
    1.3 教育方法
    1.4 教員としての個人的向上
2. 担当授業の概要
3. 授業の工夫と改善
4. 教育材料の改善
5. 教育に関する研修（Faculty Development）
6. 教育に関する活動
7. 学生からの評価
8. 将来の教育目標
9. 文献
10. 添付資料
    10.1 シラバス
    10.2 学生からの評価結果

上記は Teaching Portfolio の構成項目であり、下線は自己評価書には含まれない項目を示す。

**表6：　大学で優良な教育を行うための7原則**

Seven Principles for Good Practice in Undergraduate Education
1. Encourages contact between students and faculty
2. Develops reciprocity and cooperation among students
3. Encourages active learning
4. Gives prompt feedback
5. Emphasizes time on task
6. Communicates high expectations
7. Respects diverse talents and ways of learning
(Chickering AW, Gamson ZF, 1987)

どで何をしているのか）という点であった。大学の主役は学生であり、授業は教員・学生両者に役立つべきものとすれば、これらの留意点は当然といえる。教育実績をふまえた教員として将来のあり方を直視することは、Teaching Portfolio 作成の労力を上回る糧がえられることを意味している。Chickering & Gamson が「大学で優良な教育を行うための7原則」を示しているが（表6）[6]、Teaching Portfolio 作成を通じてこれらの原則を具体的に授業に盛り込む方策を考える機会ともなる。具体例を挙げると、100人程の大人数クラスの授業を担当する際には、全員の興味を引く内容にするのは難しいことや、パワーポイントを使った講義は印象的であるがノートを取ることが少ないために（たとえ配付資料があっても）長い目で見ると学生にとって残らない授業となりがちなことなどの、問題点が抽出されてくる。これに対し、現在行っているような授業工夫：(a) 学生が頭の中でイメージできる具体例を提示して説明する、(a) 自作の要点ハンドアウト配布し、学生自身に板書した重要内容・模式図を記載してもらう、(c)各講義の最後10分間程度でパワーポイントを使い、板書内容の定着を図るなどに加えて、(A)最後列を意識する(板書、反応、質問)、(B)ビデオなど動的メディアの積極的導入（教員がどのように活動しているかも含め）、(C)One-minute paper の導入など、新たな方策の可能性も検討できるようになる[7]-[10]。このように、Teaching Portfolio 作成は、担当授業を振り返りながら、自己の授業改善を促す機会とも成り得るのである。

　欧米における Teaching Portfolio の目的は、教員としての (1) 求職（Job Seeking）、(2) 終身雇用・昇進（Tenure and Promotion File）、(3)授業の反省（Reflecting on Teaching）、(4)個人の成長（Personal Growth）であり、欧米では特に (1)，(2) の目的に用いられることが多い[1]。しかし、我が国の現状からすれば、Teaching Portfolio の長所を生かして(3)，(4) の目的のために積極的に導入する意義があると判断される。欧米とは目的を異とするため、欧米式の Teaching Portfolio を参考にしつつも、我が国に合った形式の Teaching Portfolio、例えば弘前大学オリジナルの Teaching Portfolio を創成することも必

要となってくる。いずれにしろ、これまで述べてきた特徴を有する Teaching Portfolio の導入により、「授業内容や教育方法に対する継続的な改善により、教員の教育能力の向上が図られ、教育の質が保証される」という効果が生み出されることは、十分に期待されることである。


**謝　辞**

　常日頃よりご指導をいただき、かつ弘前大学オリジナルの Teaching Portfolio 導入を推進しておられる須藤新一弘前大学副学長（教育・学生担当理事）に深謝を申し上げます。


**文　献**

1 ）土持ゲーリー法一。ティーチング・ポートフォリオの積極的導入　－自己反省から授業改善へ－。21世紀フォーラム　1：1 -12, 2006（弘前大学21世紀教育センター）。

2 ）Centre for Learning and Teaching, Dalhousie University.
　　ホームページ : http://learningandteaching.dal.ca/

3 ）O'Neil C, Wright A.　Recording teaching accomplishment: A Dalhousie Guide to Teaching Dossier. 5th edition.　Centre for Learning and Teaching, Dalhousie University, Halifax, Nova Scotia, Canada, 2004.

4 ）Diamond RM.　Tenure and Promotion: The Next Iteration.　The National Academy for Academic Leadership.　ホームページ : http://thenationalacademy.org/readings/tenpromo.html

5 ）弘前大学医学部医学科・附属病院自己評価委員会。弘前大学医学部医学科・附属病院自己評価報告書（2002年度－2003年度）。2005年 3 月。

6 ）Chickering AW, Gamson ZF.　Seven Principles for Good Practice in Undergraduate Education. AAHE Bulletin, 1987; 39: 3-7.

7 ）Gedalof AJ.　Teaching large classes.　Society for Teaching and Learning in Higher Education, Green Guide No. 1.　University, Halifax, Nova Scotia, Canada, 2004.

8 ）Cameron BJ.　Active learning.　Society for Teaching and Learning in Higher Education, Green Guide No. 2.　University, Halifax, Nova Scotia, Canada, 1999.

9 ）Dunne D, Brooks K.　Teaching with cases.　Society for Teaching and Learning in Higher Education, Green Guide No. 5.　University, Halifax, Nova Scotia, Canada, 2004.

10）土持ゲーリー法一。大学教育と大学図書館　―大学改革は図書館から―。21世紀フォーラム　1：75-76, 2006（弘前大学21世紀教育センター）。

**表7：弘前大学医学部医学科・附属病院における自己点検評価記載用紙（2005年度教育活動）**

# 教育活動の自己点検・評価記載用紙

## ［A］教育の到達度と目標

前回（2年前）設定した目標に対する到達度

| |
|---|
| |

これから2年間の目標

| |
|---|
| |

## ［B］教育実績

### 1）21世紀教育

（1）講義の担当者名、職名、区分、領域、授業主題、授業科目名、回数を記入して下さい。

| | 担当者名 | 職　名 | 区　分 | 領　域 | 授業主題 | 授業科目名 | 回数 |
|---|---|---|---|---|---|---|---|
| 05年度 | | | | | | | |

（2）実習の担当者名、職名、区分、授業科目名、回数を記入して下さい。

| | 担当者名 | 職　名 | 区　分 | 授　業　科　目　名 | 回数 |
|---|---|---|---|---|---|
| 05年度 | | | | | |

### 2）学部教育

（1）講義の担当者名、職名、授業科目、対象学年、回数を記入して下さい。

| | 担当者名 | 職　名 | 授　業　科　目 | 対象学年 | 回数 |
|---|---|---|---|---|---|
| 05年度 | | | | | |

（2）基礎実習の担当者名、職名、授業科目、対象学年、回数を記入して下さい。

| | 担当者名 | 職　名 | 授　業　科　目 | 対象学年 | 回数 |
|---|---|---|---|---|---|
| 05年度 | | | | | |

（3）臨床実習の担当者名、職名、対象学年、回数を記入して下さい。

| | 担当者名 | 職　名 | 対　象　学　年 | 回　数 |
|---|---|---|---|---|
| 05年度 | | | | |

（4）OSCEの担当者名、職名を記入して下さい。

| | 担当者名 | 職　名 |
|---|---|---|
| 05年度 | | |

### 3）研究室研修の受け入れ人数、指導者名を記入して下さい。

| | 受入人数 | 指　導　者　名 |
|---|---|---|
| 05年度 | | |

—1—

4）大学院

　（1）講義の担当者名、職名、授業科目、対象学年、回数を記入して下さい。

| | 担当者名 | 職　名 | 授　業　科　目 | 対象学年 | 回数 |
|---|---|---|---|---|---|
| 05年度 | | | | | |

　（2）実習の担当者名、職名、授業科目、対象学年、回数を記入して下さい。

| | 担当者名 | 職　名 | 授　業　科　目 | 対象学年 | 回数 |
|---|---|---|---|---|---|
| 05年度 | | | | | |

　（3）学位論文の作成指導者名、職名、指導論文名を記入して下さい。

| | 作成指導者名 | 職　　名 | 指　導　論　文　名 |
|---|---|---|---|
| 05年度 | | | |

5）ファカルティ・ディベロップメントへの参加者名、職名、名称等を記入して下さい。

| | 参加者名 | 職　　名 | 名　　称　　等 |
|---|---|---|---|
| 05年度 | | | |

6）医師の生涯教育

　（1）研修登録医の人数を記入して下さい。

| | 研修登録医の人数 |
|---|---|
| 05年度 | 　　　　　　　　名 |

　（2）研究生の人数を記入して下さい。

| | 研　究　生　の　人　数 |
|---|---|
| 05年度 | 　　　　　　　　名 |

7）本学他学部と医学部保健学科の教育の担当者名、職名、対象学年、科目名、回数を記入して下さい。

| | 担当者名 | 職　　名 | 対象学年 | 科　　目　　名 | 回数 |
|---|---|---|---|---|---|
| 05年度 | | | | | |

8）他大学・他施設における講義

| | 担当者名 | 職　　名 | 回　数 | うちコ・メディカルの回数 |
|---|---|---|---|---|
| 05年度 | | | | |

9）学生授業出席率

| | 担当者名 | 職　　名 | 科　　目　　名 | 出席率 |
|---|---|---|---|---|
| 05年度 | | | | |

10）学生による授業評価について記入して下さい。

| | 担当者名 | 職　　名 | 科　　目　　名 | 評　　価 |
|---|---|---|---|---|
| 05年度 | | | | |

表 8：Teaching Portfolio の具体例

# Teaching Portfolio

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## Table of Contents

1. Teaching Philosophy
    1.1 Aspects of Pathology in Medicine
    1.2 Steps of Learning
    1.3 Methods of Teaching
    1.4 Personal Growth

2. Summary of Teaching Responsibility
    2.1 Courses of Undergraduate Students
    2.2 Courses of Medical School Students
    2.3 Courses of Graduate Students

3. Course Development and Modification

4. Development of Teaching Materials

5. Professional Development

6. Administrative Work Related to Teaching

7. Information from Students

8. Future Teaching Goals

9. References

10. Appendix
    10.1 Syllabus
    10.2 Student evaluation

## 1. Teaching Philosophy

Teaching must be very impressive and incentive, because it provides for the students numerous opportunities to learning.  I believe teachers must be enthusiastic about the subjects.

1.1 *Aspects of Pathology in Medicine*

Pathology is the study of the processes underlying disease（illness）, harmful abnormality, or dysfunction.  I think the primary goal of learning pathology is to understand the four main aspects of a disease:（1）etiology（causes of the disease）,（2）pathogenesis (mechanisms),（3）morphologic changes, and（4）clinical significance.  I emphasize the four aspects, and often say to the students, "Think about causes of the disease, mechanisms of the disease, differences between the disease and normal, and systemic influence of the disease." I try to prevent my classroom from becoming a one-way lecture to the students, when I teach a large class.  During the lecture, I frequently ask the students concrete disease examples, as well as disease symptom, because one-way conversation is sometimes boring and should be avoided.

1.2 *Steps of Learning*

The students learn pathology in several courses, depend on their grades.  Step 1: During the anatomical and physiological learning, undergraduate students study pathology of the common and major diseases, such as cancer and diabetes mellitus.  The students are interested in differences the diseases and normal, and know importance of the major diseases in the daily life.  Step 2: 1st/2nd grade medical school students have much time for learning pathology.  In the course of microscopy practice, the students are able to learn microscopic findings of more than 200 disease cases.  They discuss the microscopic alterations and clinical significance with the other students and/or teachers using the teaching microscopy.  In the classroom of the 1st grade medical school students, I often emphasize concepts of each disease.  Numerous illnesses are categorized into several groups, such as inflammatory disease, immune disease, infection, metabolic disease, vascular disease and tumor.  Step 3: 3rd/4th grade medical school students learn importance of diagnostic pathology during the bedside learning and/or clinical clerkship.  In the Diagnostic Pathology Section in our hospital, they learn that the pathologic diagnosis is directly connected with patient's diagnosis, and that the pathological alterations affect patient's status significantly.  The students recognized importance of diagnostic pathology, including intraoperative diagnosis and Pap smear cytology.  I want they are truly interested in pathology fields through the clinical practices.

1.3 *Methods of Teaching*

"*Every cell originates from another cell.*"
"*Various normal functions of cell growth, metabolism, and division can fail or work in abnormal ways and lead to various diseases.*"
　　　　*Principles of*"*Cellular Pathology (1858)*"*by Rudolf Ludwig Karl Virchow (1821-1902)*

The most diseases are based on the microscopic cellular changes which include cell injuries and host responses against the pathogens.  The students easily get photo images of these cellular changes from text books or internet downloading.  But getting the photos is not substantial.  It is important that the students make microscopic visual images of the cellular alterations in their brains.  I think, therefore, it is a good idea that the students try to draw schematic figures for learning the pathological images.  Flow-charts are also useful to understanding the disease mechanisms.  In order to stimulate students' pathologic imagination, I also show drawing the schemes and flow-charts in the classroom time.  The schematic explanation is helpful to create structures of the pathologic knowledge.  In the exams I often ask mechanisms of pathologic evidences, and require the students to draw schemes/flow-charts on the exam papers in order to make sure the high-order knowledge of pathology.

1.4 *Personal Growth*

I have an 18-year career of pathology teaching in two universities, Tokai University and Hirosaki University. I always welcome feedback from others, especially students, in order to improve my teaching ability. The student evaluations and self-evaluations provide concrete ideas how to change my teaching styles and methods. My current teaching interests include computerized virtualization of microscopy practice. When I introduce the computer system of the virtualized microscopic pictures, the students are easily able to discuss microscopic findings and to learn anytime using the system.

I aim to teach in a way that stimulates self-motivated learning and creates medical excitement through the experiences of the pathologic visual images of the diseases.

## 2. Summary of Teaching Responsibility

2.1 *Course of Undergraduate Students*

  2.1.1　Seminar of Human Biology, 1st grade, 4-5 students x 7 weeks x 4 cycles

      In the lab, the 1st grade undergraduate students study human structures and functions, as well as Medical English, using the English book, Human Biology, authored by Mader SS. Also, they learn fundamental human diseases, such as cancer and diabetes mellitus. This is the first course of Medicine based on self-learning.

2.2 *Courses of Medical School Students*

  2.2.1　Pathology, Basis of Diseases, 1st grade, 100 students x 2/week x 15 weeks

      This is one of the keynote courses in the medical school. The students learn pathologic basis of many diseases, and recognize that the most diseases are based on the microscopic cellular changes which include cell injuries and host responses. They understand frameworks of diseases, and get to know disease categories, e.g. inflammatory disease, immune disease, infection, metabolic disease, vascular disease and tumor. The categories are helpful to understand mechanisms of the diseases.

  2.2.2　Seminar of Pathology, 1st grade, 2 students x 15 weeks

      In the lab, the 1st grade medical school students study basic fields of both research and diagnostic pathology. On research works, they perform basic techniques of molecular biology/pathology such as cell culture and nucleic acid/protein expression, and analyze experimental results using statistics. The students also experience pathologic diagnosis of patient's specimens, such as microscopic diagnosis of human caner.

  2.2.3　Pathology, Microscopy Practice, 2nd grade, 100 students x 2/week x 15 weeks

      In the course, the students are able to learn microscopic findings of more than 200 disease cases. Each student has individual microscope, and learns the microscopic alterations and clinical significance discussing with the other students and/or teachers. For effective learning, the students draw schematic figures of the microscopic sections they observed. Teaching microscopes are helpful for understanding the microscopic alterations of the diseases.

  2.2.4　Clinical Clerkship, Diagnostic Pathology, 4th grade, 2 students x 4 week x 3 cycles

      In the lab, the 4th grade medical school students study both diagnostic pathology and research in high levels. Under the tuition of instructor, the students diagnose patient's specimens, and sign out reports of the pathology diagnosis. They get to know importance of diagnostic pathology, including intraoperative diagnosis and Pap smear cytology. They experience case presentation at

the clinic-pathological conferences.  Also, the students study pathologic findings of the representative diseases, which are helpful to take the National Board Examination for Medical Doctor.  In addition, the students learn research techniques in the diagnostic pathology field including procedures of immuno-histochemistry and in-situ hybridization.

2.3 *Courses of Graduate Students*
    2.3.1  Current Issue in Medicine, Pathology for Oncology, 30 students x 1 week
        The course for graduate students focuses on the cancer research field, and demonstrates current advances in oncology, including cancer biology, mechanisms of cancer genes, modulation of cancer growth and experimental cancer therapeutics.  The current issues include our research about suppression of cancer growth and reversal of drug resistance.

    2.3.2  Current Issue in Medicine, Circadian Rhythm and Clock Genes, 30 students x 1 week
        The course focuses on the research field of circadian rhythm, which is regulated by clock gene expression in brain.  The current reports show the expression of clock genes not only in brain, but also in the other organs.  The graduate students get to know that the rhythm plays a significant role in normal/pathologic activities of living bodies.

Complete syllabi of the pathology courses in medical school are included in Appendix 10.1.
I teach to undergraduates, medical students and graduates as described the above.  But, I have more significant teaching responsibility of medical students, because pathology is one of the most important fields in the medicine.

## 3. Course Development and Modification

Most of my courses were inherited, but have been substantially modified in the last years in response to student feedback, my own ideas and information taken from teaching workshops.  The major trend of the course development was away from inherited rigidity in planning, and interpretations of the scientific process towards encouragement of divergent thinking.  In every classroom, I have tried to illustrate points （schematic figures/flow-charts）and to evoke discussion among the students.  The schematic illustration is thought to become modeling for internalization of pathologic knowledge in brain.

*"Pathology, Basis of Diseases",* 1st grade of medical school
This course was a traditional curriculum to learn pathologic basis of diseases.  In the large class with 100 enrolled students, they used to be boring because teachers simply taught too many diseases.  In the course, therefore, I focus on the major diseases, and more emphasize disease analysis.  Recently, weight of the diagnostic pathology has been increased in the pathology fields.  Pathology diagnosis of "CANCER" defines patient's diagnosis, and directly influences clinical therapy.  Therefore, I introduced parts of diagnostic pathology of patient's specimens, i.e., diagnosis of biopsy and Pap smear cytology into this course, in addition to the traditional anatomical pathology.  I also re-organized the syllabus, and expanded the "tumor/cancer" section, compared with the other sections (cell injury, metabolic disease, immune disease, inflammation, infection, vascular disease, and neuropathology).  The "tumor/cancer" section has a unique class of "clinical oncology" which includes a new therapeutic field of pathology-based molecular targets.

*"Clinical Clerkship, Diagnostic Pathology",* 4th grade of medical school
Previously, the clinical clerkship students rotated among the so-called clinical sections, such as internal medicine, surgery, obstetrics/gynecology and pediatrics, but not diagnostic pathology section in the hospital.  I introduced an option to study in the diagnostic pathology section as the clinical clerkship,

because the pathology diagnosis contributes the definite/differential diagnosis of the diseases very significantly.　The clinical clerkship students are demanded to do more complex things using high-levels knowledge, i.e., extracting findings from pathology sections, making differential diagnoses and finally diagnosing diseases.　In addition, the clinical clerkship is helpful to recognize importance of team medicine, i.e., interaction with co-medical staffs such as medical technologists, cytopathologic technologists and nurses.

## 4. Development of Teaching Materials

Microscopic pathology sections（microscopy glass slides）are necessary to diagnostic pathology, as well as to student's pathology courses.　I re-organized educational files of the microscopic sections, and utilize these for self-developed learning.

"*Pathology, Microscopy Practice*", 2nd grade of medical school
The pathology section file includes more than 200 disease cases.　The students felt the number of the filed disease was too many.　I think the students should primarily focus on the major and important diseases, such as cancer and myocardial/cerebral infarction, but not on the unusual congenital disease.　Therefore, I divided the diseases into the three ranks; i.e., groups of（i）major,（ii）fairly important, and（iii）uncommon diseases.　Now the students recognize the ranking of disease significance.

"*Clinical Clerkship, Diagnostic Pathology*", 4th grade of medical school
I made an educational pathology section file of important disease cases（educational cases）.　Using the file, the clerkship students are easily able to learn the typical pathology findings of the important diseases. When they diagnose daily patient's specimens, they can compare them with the educational and typical cases; this is very helpful to internalize the image of the pathologic findings.

## 5. Professional Development

*Teaching Workshops attended*
  - 1st Workshop on Teaching, the Japanese Society of Pathology, August, 2003
  - 2nd Workshop on Teaching, the Japanese Society of Pathology, August, 2003
  - 3rd Workshop on Teaching, the Japanese Society of Pathology, September, 2003
  - 4th Workshop on Teaching, the Japanese Society of Pathology, August, 2004
  - 5th Workshop on Teaching, the Japanese Society of Pathology, September, 2004

Aims of the workshops described above were
  a）How to stimulate self-motivated learning of pathology
  b）How to improve methods of pathology teaching
  c）Syllabus models of basic pathology courses for undergraduate students
  d）Intercourse teaching relations between basic medicine and pathology
  e）Appropriate disease materials of microscopic practice
  f）Syllabus models of pathology courses for medical school students
  g）Intercourse teaching relations between pathology and clinical medicine
  h）Syllabus models of clinical clerkship at diagnostic pathology section
  i）How to improve pathology training for residents/graduate students
  j）Syllabus models of advanced pathology courses for graduate students

During the workshop participation, I discussed with the other pathologists, and exchanged useful information about pathology teaching/learning.  I had opportunities to think about the more effective teaching/learning of pathology.


## 6. Administrative Work Related to Teaching

*Universities*
 - Member, Committee of Education and Student Affairs, Hirosaki University, 2006
 - Member, Management Committee, Hirosaki University School of Medicine, 2006
 - Councilor, Otsuma Gakuin Institute, 2004-2006


*Scientific Society*
 - Member, Committee of Pathology Education, the Japanese Society of Pathology, 2006


I play active roles not only in the general student education at Hirosaki University, but also in the pathology education in the scientific society.  I surely consider how to perform the best way of pathology teaching/learning.


## 7. Information from Students

A standard student evaluation instrument is required by the university faculty for all courses in all terms.  Mean student rating for "teacher specific items" on the instrument are show below.  These are averages for the course, "Pathology, Basis of Diseases" which is my core class.  Formal feedback from the student evaluation of instruction has generally been favorable.

*Summary of Student Evaluation*
*Pathology, Basis of Diseases, 1st grade of Medical School*

| Category | 1st semest. 2005 | 2nd semest. 2005 | 1st semest. 2006 |
|---|---|---|---|
| Attractive teaching | 4.6 | 4.6 | 4.6 |
| Enthusiasm for teaching | 4.5 | 4.8 | 4.5 |
| Timely feedback | 4.4 | 4.8 | 4.4 |
| Logical teaching | 4.7 | 4.8 | 4.7 |
| Fairness to syllabus | 4.7 | 4.6 | 4.7 |
| Concern for students | 4.6 | 4.7 | 4.6 |
| Overall teaching effectiveness | 4.6 | 4.6 | 4.6 |

As seen in the table (where 1 = very poor ⋯ 5 = excellent), evaluations on specific criteria have ranked between 4.4 and 4.8.  My overall teaching effectiveness was shown to be good; but I still continue to make efforts at better teaching.

Samples of positive written comments on the evaluation included, "Dr. Kijima was consistently prepared for class and made the class as interesting as it could be", "you were very organized and enthusiastic about the subject", "very clear and concerned that student gain a solid understand", "schemes and points you illustrated are helpful for understanding", "summaries are very good" and "Dr. Kijima is the best professor I had at the medical school." Some students indicted areas for improvement: "talked too fast sometimes", and "drew the schematic figures too small." I take these evaluations very seriously and already have made concerted efforts to speak slower and to draw the larger figures.  In order to improve my teaching ability, I always welcome feedback from the others such as the comments on the student evaluation.

Complete student evaluations of instruction are included in Appendix 10.2.

## 8. Future Teaching Goals

I have enjoyed the courses I have taught in both the seminar and large class setting, but I will be adding to may areas of teaching expertise. I will continue to bring new teaching/learning techniques into my courses. I intend to have opportunity in the future both to teach courses that I have experienced, and to continue to expand into new areas. I would like to fine the right balance in my teaching style and the self-motivated classroom. I am also interested in adopting current learning technologies, and plant to address this area in a more systematic way. In the near future I would like to introduce computer-based strategies including learning materials such as webCD and computerized virtualization of the microscopy practice course.

Case-oriented system（COS; case-based problem solving system）has already introduced in our medical school, but is thought to be not enough in the curriculum. COS functions in the 3rd grade courses of medical students only, but no in the other grades of undergraduate and medical school courses. In order to be familiar with COS and to stimulate active learning of the students, I want to introduce COS in the undergraduate courses. Ii is my horizon of teaching that long-term exposure to COS activates self-motivated learning skill and active learning attitude.

I look forward to continuing diagnostic pathology（clinic）and research in the areas that surely enhances my understanding of the topics I teach. I experienced a lot of precious pathology cases, such as rare cases of tumors and metabolic diseases. My research has closely related to cancer growth/invasion and its regulation. These diagnostic achievements and research works are very helpful in the teaching of these issues including cancer biology.

I enjoy working with my colleagues at Hirosaki University School of Medicine, and feel a part of the faculty very well. Teamwork of the faculty is very important, but I believe that my teaching plan fits well the faculty that strives for excellence. I think the significant value of the best teaches to talk to others about their teaching. I have participated in many activities designed to strengthen teaching, i.e. faculty development. I will continue to attend and to plan the faculty teaching development.

## 9. References

1) O'Neil C, Wright A. Recording teaching accomplishment: A Dalhousie Guide to Teaching Dossier. 5th edition. Centre for Learning and Teaching, Dalhousie University, Halifax, Nova Scotia, Canada, 2004.
2) Gedalof AJ. Teaching large classes. Society for Teaching and Learning in Higher Education, Green Guide No. 1. University, Halifax, Nova Scotia, Canada, 2004.
3) Cameron BJ. Active learning. Society for Teaching and Learning in Higher Education, Green Guide No. 2. University, Halifax, Nova Scotia, Canada, 1999.
4) Dunne D, Brooks K. Teaching with cases. Society for Teaching and Learning in Higher Education, Green Guide No. 5. University, Halifax, Nova Scotia, Canada, 2004.

## 10. Appendix

10.1 Syllabus
10.2 Student evaluation