## **Syllabus**

#### GEORGE MASON UNIVERSITY Graduate School of Education Innovations in Distance Learning (3.3.0) EDIT 611

#### Instructor: Dr. Kay R. McCarron

Class Date and Time: Section 001 - Mondays, 4:30 p.m. - 7:10 p.m.; Section 002 - Thursdays, 4:30 p.1

Class Location: Commerce II, 101 (Emerging Technologies Lab)

#### **Contact Information and Campus Hours:**

Office Location: Commerce II 107B	Telephone: (703) 993-4177
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Office Hours: Mondays and Thursdays 3:00 p.m. – 4:20 p.m. or by appointment

**Course Description:** Students will explore the latest innovations in distance learning technologies and environme theoretical issues central to distance education. The course will cover online distance learning environments incluionline learning communities and communities of practice. Hands-on activities with these technologies focus on plaevaluation. Students discuss emerging applications in distance learning and how new approaches to learning can K-12 classrooms and training environments.

#### Student Outcomes:

At the conclusion of this course, students will be able to:

- 1. Describe current leading-edge programs in distance education in K-12 settings, higher education and corpc environments.
- 2. Discuss the ways in which learning and teaching across barriers of distance and time are similar to and d instruction.
- Demonstrate proficiency in using various interactive media (asynchronous threaded discussion sites, synch environments, groupware, interactive presentational media, and videoconferencing), instructional delivery r applications.
- 4. Apply effective instructional design for various interactive media, instructional frameworks and applications.
- 5. Experience how each medium for interacting across distance shapes the cognitive, affective and social dim indicate the range of individual responses to these media.
- 6. Describe methods for evaluating the effectiveness of distance education approaches.
- 7. Communicate how innovations such as the Web, multi-user virtual environments, computer-supported colla telementoring and online communities are shaping the evolution of distance education and distributed learr
- 8. Construct models for applying accessibility in distance education.

#### Technology Program and Profession Standards (ISTE NETS):

Within the Instructional Design and Development (ID&D) track, this course adheres to the following National Educ Standards (NETS) established by the International Society for Technology in Education (ISTE) under the National Accreditation of Teacher Education (NCATE).

I. TECHNOLOGY OPERATIONS AND CONCEPTS.

Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

B. demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging techr

II. PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.

Teachers plan and design effective learning environments and experiences supported by technology. Teachers:

B. apply current research on teaching and learning with technology when planning learning environments and exp C. identify and locate technology resources and evaluate them for accuracy and suitability.

III. TEACHING, LEARNING, AND THE CURRICULUM.

Teachers implement curriculum plans, that include methods and strategies for applying technology to maximize st Teachers:

C. apply technology to develop students' higher order skills and creativity.

V. PRODUCTIVITY AND PROFESSIONAL PRACTICE.

Teachers use technology to enhance their productivity and professional practice. Teachers:

B. continually evaluate and reflect on professional practice to make informed decisions regarding the use of techn learning.

- C. apply technology to increase productivity
- D. use technology to communicate and collaborate with peers, parents, and the larger community in order to nurtu
- VI. SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.

Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 scheprinciples in practice. Teachers:

- A. model and teach legal and ethical practice related to technology use.
- D. promote safe and healthy use of technology resources.

**Nature of Course Delivery:** This course will utilize a combination of lectures, hands-on experiences, media, field discussions and projects to help participants understand the strengths and limits of current technologies for distan likely evolution of distributed learning.

#### Texts and Readings:

Ko, S. & Rossen, S. (2004). *Teaching online: A practical guide (2nd ed.)*. Houghton Mifflin Co.

Clark, R. C. & Mayer, R. E. (2003). e-Learning and the science of instruction. San Francisco, CA. Jossey-Bass/Pfe

Advanced Distributed Learning (ADL) (2003) Distance learning (dl) guidelines: What works in distance learning.

Web-Based Education Commission to the President and the Congress of the United States (2002). <u>The power of</u> <u>Moving from promise to practice</u>.

Crichton, M. (1999). *Timeline*. New York. Alfred Al Knopf.

Online articles, distributed learning tools and supplementary readings provided by instructor. These reading assign updated on the course Web site.

Required readings have been selected to enhance both the understanding and application of distance learning tecthis course. Students are expected to share reactions through participation in online discussions as well as in the also be required to research additional articles and present those articles to the class.

**Course Requirements:** There will be 3 class projects that are required for successful completion of this class. Ea 25% of your total Final Grade. Class participation in daily/ weekly assignments will determine the final 25% of your

# A. Students will be expected to complete ONE of the following research and presentation assignments (Te projects with approval of instructor):

#### 1. Research and Report on a Current Online University or Distance Education Program (Team proje

- Select an existing online academic, corporate, government, military or commercial distance educatic college/ university.
- Interact with the site to determine how effectively the program meets the needs and expectations of
- Analyze the extent to which the program is based on the ideas and principles in the texts and require specifically addressing as many of the following as possible:
  - Course management system
  - Specific course/ degrees offered
  - Accreditation
  - Faculty profiles
  - Interface design
  - ISD models
  - Support
  - Technologies incorporated (audio, video, interactivity, groupware, etc.)
  - Collaboration Models
  - Pedagogy/ theoretical models
  - Accessibility for students with disabilities
  - Other
- Prepare and give a 20 minute class presentation on the program.

#### OR

#### 2. Experience an Educational Multi-User Learning Environment (MUVE) (Team or individual project)

- Participate in at least 5 one-hour learning experiences conducted in a MUVE. Some examples of a N TappedIn and Stargazer.
- Prepare and present your reactions to this experience (including the characteristics of the MUVE and learning experiences, your interaction within the community, the community members, etc.) in class

class presentation.

#### OR

#### 3. Evaluating Distributed Learning Vendors (Team or individual project)

- Research and compare 3 vendors who specialize in similar distance educational software, such as a discussion tools or groupware.
- Evaluate and demonstrate their products in class with a 20 minute class presentation.

#### B. Students will be expected to complete ONE of the following Final Projects (Team projects with approva

#### 1. Online Mini-Course/ Training (Team Project)

Each student is expected to complete an assignment in which he or she prepares and teaches a distance le course delivery system or virtual environment. Teams of approximately four students each will be created.

- Topic. Choose a unique topic from the list below. The instructor must approve each team topic.
  - a) Gender and distance education

b) MOOs (Multi-User Domain Object Oriented), MUDs (Multi-User Dimension or Dungeon), and MUVEs (M Environments) [Note: those choosing the MUVE experience in Assignment A CANNOT choose this topic.]

- c) Online communities of practice
- d) Ethical issues in distance education
- e) Distance education and life-long learning
- f) Distance education and learning in industry (including e-Learning)
- g) Distance education in science and mathematics
- h) Distance education and cultural issues
- i) Web accessibility issues
- j) Distance education in the K-12 arena
- k) Distance education and informal learning networks (e.g., museums)
- I) Distance training in the corporate environment
- m) Evaluating online learning
- n) Virtual Reality/ simulations in distance learning
- o) Other (with instructor's approval)
- Preparation Research. Each team must research [both using library and web resources and (if possible) e topic. The resources collected by the team become the resources for the team's use of an online course may the other members of the class about its findings and must be posted online.
- Practice Online Course. Each team must, on the team's online site or in a virtual environment:

i. Design, develop and implement a mini-course syllabus (deadline: the date for the class to experience you lesson)

- ii. Implement and monitor an asynchronous discussion
- iii. Create and facilitate one synchronous online discussion
- iv. Assess the work of student participants, including participation
- v. Post students' grades/ evaluations
- Each team will have 1 week to present the Mini-Course/ Training to the class.

#### 2. Create an Online Community of Practice (Special Team Project)

#### C. "Experiences in Designing, Implementing and Facilitating a Mini-Course or Online Community of Practi

Each team must submit a reflective paper on the experience of teaching the distance education mini-course or cre of Practice. The paper should: (a) describe the research and direct experience of the topic, (b) report on the team' (under section 3 above) or instructions for the CoP and (c) the team's experience using collaboration software/ grc process in developing the coursed or Web site. This report (effectively a "lessons learned" document) should be n length, not including references. Both an electronic and hard copy of the paper will be submitted.

To receive the full 25 points, each paper must adhere to the following standards:

- The paper, using APA style standards, will consist of the following:
  - Names of the group members and the roles that each member played throughout the research, desi
    implementation of the project.
  - A detailed report on the team's experience throughout the process, including but not limited to -
    - the use of collaboration to develop the project, including the various groupware tested during impressions of the groupware used,
    - a reflection of your team effort and the "lessons learned" during the creation and delivery of yo
    - the implementation, facilitation and monitoring of asynchronous discussion/s through your onl
    - the choice of a method to assess student learning,
    - the creation and facilitation of one synchronous online discussion (mini-course only)
    - the posting of student assessments, including participation (mini-course only).

#### **D.** Participation

Participation in class, both face-to-face and distant, and via electronic discussions is assessed by both quality and

#### Participation Assessment:

Students will receive a full 25 participation points by actively participating in EDIT 611 and all course activities, as projects. Students are expected to participate fully in all classroom experiences (both real and virtual). Active parti the asynchronous and synchronous discussions throughout each part of the course. (See **Online Discussion Prc Dabbagh, N. Copyright 2000 - 2003 in the Blackboard External Links.**)

#### Evaluation:

This course is graded on an A, A-, B+, B, B-, C and F basis. Grades will be based on completion of course require quality and creativity of the assignments as specified in the assignment rubrics. An incomplete in the course will be unusually extenuating circumstances.

- Attendance and participation in class sessions whether face-to-face or virtual is mandatory, as discussive experiences are important parts of the course. Each student must participate in the distance learning experiences (see below). The class schedule may change as the course progresses; changes will be posted site (Announcements feature).
- Each student is expected to complete all readings and class exercises and contribute to in-depth asynchror synchronous discussions as assigned by the instructor or as part of a class team's lesson.
- Each student (as part of a small team) is expected to design and offer a mini-course using an online deliver software approved by the instructor.
- Obtaining and regularly using a computer account with access to the Internet is required. GMU makes such to its students.
- To enable individualization of the course to the needs of each student, special arrangements on requirements be negotiated in writing with the instructor. Revised assignments typically involve direct, extensive involver

engaged in the design, development, evaluation or implementation of a distance education experience.

• Students missing the due date for an assignment must make immediate arrangements with the instructor to before the next class. Points will be deducted based on the number of days the assignment is late.

Required Assignments and Values:

- A. Choice of Research Topic and Class Presentation (25%) (Individual or Team Project)
- B. Choice of Online Mini-Course/ Training or Online Community of Practice (25%) (Team Project)
- C. Reflection Paper (25%) (Team Project)
- D. Individual Participation (25%)

#### **Grading Scale:**

A 93 - 100 A- 90 - 92 B+ 88 - 89 B 83 - 87 B- 80 - 82 C 70 - 79 F Below 70

### **Course Schedule**

Week li 1	<ul> <li>Class Activity</li> <li>Welcome</li> </ul>	Outside Assignment for Class
Jan. 22	Introduction to Course Format and Blackboard	
Jan.26	Discuss Syllabus and Schedule	
	Survey	
	<ul> <li>Workshop: Collaboration Tools, Discussion Boards (Asynchronous Medium)</li> </ul>	
2		<ol> <li>Participate in the Blackboard (Bb) Discussion I</li> </ol>
Jan.	<ul> <li>Student Photos/ Group Photo</li> </ul>	introducing yourself. Begin to get to know each ot interesting things about your fellow students, perh
29	Review Project/ Participation Rubrics	common.
Feb. 2	<ul> <li>Introduction to Game-based Learning</li> </ul>	2. Required Readings Texts: <i>e-Learning</i> , Chapte
	• Presentation: Online Teaching and Learning: What We Have Experienced in the Past,	Designing and Studying Learning Experiences Interactive Media to Bridge Distance and Time (B Week 2)

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Current Trends and Future Possibilities	Prensky, M. (2001) Digital Game-Based Learn	
	<ul> <li>Collaboration Tools Workshop: Introduction to Synchronous discussion techniques</li> </ul>	3. Begin to choose your topics for Assignment A Blackboard Discussion Board entitled <b>Topics for</b>
	TappedIn Experience	4. <b>Monday Class Only:</b> Fill out the Survey found site under the Syllabus feature and return to me v
<ul> <li>Discuss teams, teamwork and topics for Assignment A and special projects</li> </ul>		
<b>3</b> Feb. 5	<ul> <li>Class Discussion of Marra/ Jonassen article.</li> </ul>	1. Required Readings Texts: <i>e-Learning</i> , Chapter
Feb. 9	<ul> <li>Presentation: The Role of Online Communities in Distance Education and the Value of the Constructivist Approach to Learning</li> </ul>	Handout: R. Marra and D. H. Jonassen, Limitation Supporting Constructive Learning
	Workshop: The Role of Games in Learning	Handout: Kajder, S. & Bull, G.(2003). Scaffolding Reading and writing with blogs. <i>Learning &amp; Lead</i> , n. 2
	<ul> <li>Collaborative Tools Workshop Continues with Blogging!</li> </ul>	Prensky, M. (2001) <u>Digital Game-Based Learnir</u> Crichton, M. (2000) <i>Timeline</i> , pages vii - 60
	<ul><li>Students will choose Teams/ Topics</li><li>Group work: Collaboration on Project 1</li></ul>	2. Teamwork: Choose final Groups and topics. C using the Chat feature in Blackboard
	(Assignment A)	

#### 4 **Virtual Class**

- Feb.12 • Workshop: The Role of Games in Learning
- Feb.16 • Virtual Workshops in a Community Environment
  - The MOO, MUD and MUVE [Immersive Virtual Environments]
  - Group work: Collaboration on Project 1 • (Assignment A)

1. Required Readings Texts: e-Learning, Chapte

Prensky, M. (2001) Digital Game-Based Learn

Crichton, M. (2000) Timeline, pages 61 - 115

Handouts: Communities of Practice articles

#### **Online: See External Links**

2. Discussion Board: Class discussion on Requi

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Discussion: Communities of Practice

Feb.

EDIT 6	11	Page 8 of 10
19 Feb. 23	<ul> <li>Student Chapter Discussions</li> <li>Group work: Collaboration on Project 1 (Assignment A)</li> </ul>	<ol> <li>Required Readings Texts: <i>e-Learning</i>, Chapter Crichton, M. (2000) <i>Timeline</i>, pages 116 - 209 Online: See Assignments and External Links in I</li> </ol>
<b>6</b> Feb. 26 Mar.1	Student presentations: Assignment A	<ol> <li>Prepare for Student Presentations</li> <li>Required Readings         <ul> <li>Crichton, M. (2000) <i>Timeline</i>, pages 210 - 268</li> <li>Online: See Assignments and External Links in</li> </ul> </li> </ol>
<b>7</b> Mar. 4 Mar. 15	Student presentations: Assignment A SPRING BREAK: MARCH 7 - 14 Virtual Class (Section 001 Only Panel Discussion (Guest Speakers): Myriad Methods of Designing Online Coarses	<ol> <li>Prepare for Student Presentations</li> <li>Required Readings</li> <li>Online: See Assignments and External Links in I</li> </ol>
<b>8</b> Mar. 18 Mar. 22	<ul> <li>Discuss <i>Timeline</i> and its relevance to the future of distance learning</li> <li>Student Chapter Discussions</li> <li>Using the VIRTUAL FIELD TRIP and the VIRTUAL LAB in Distance Education</li> <li>Group work on final projects</li> </ul>	<ol> <li>Required Readings Texts: <i>e-Learning</i>, Chapter Crichton, M. (2000) <i>Timeline</i>, <b>complete by the</b> Online: See Assignments and External Links in I</li> </ol>
<b>9</b> Mar. 25 Mar. 29	<ul> <li>Student presentations: Assignment 1</li> <li>Accessibility Issues; How to Level the Playing Field</li> <li>Introduction to the use of the teleconferencing medium</li> <li>Learning Styles/ Personality Issues in the Online Learning Environment (Guest lecturer)</li> </ul>	Online: See Assignments and External Links in B

<b>10</b> Ap. 1 Ap. 5	<ul> <li>The Future of Distance Education: Reusable Learning Objects, SCORM and XML, Virtual Reality Educational Spaces.</li> <li>Ethical Issues in Distance Education</li> </ul>	Online: See Assignments and External Links in E
<b>11</b> Ap. 8 Ap. 12	<b>Virtual Class</b> Team #1 Final Project	Assignments as developed and implemented by
<b>12</b> Ap. 15 Ap. 19	Virtual Class Team #2 Final Project	Assignments as developed and implemented by
<b>13</b> Ap. 22 Ap. 26	Virtual Class Team #3 Final Project	Assignments as developed and implemented by
<b>14</b> Ap. 29 May 3	<b>Virtual Class</b> Team #4 Final Project	Assignments as developed and implemented by
May 6	Class discussion on Virtual Experiences in the Final Projects Course Evaluation	Peer Evaluations Due by 4:30 P.M. Elec sent via email. Reflection Papers Due by 4:30 P.M. Ele sent via email. Hard copies are to be brought t

#### Honor Code:

To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of George N the desire for greater academic and personal achievement, we, the members of George Mason University, have s of honor. Any individual who is caught in the act of cheating, attempting to cheat, plagiarizing, or stealing will be bi of their peers. In the event that the individual is found guilty, he or she will be punished accordingly. For further infer the University Catalog or Website at www.gmu.edu.

This syllabus is subject to change based on the needs of the class. The Americans with Disabilities Act (ADA) pro individuals with disabilities in the series, programs, or activities of all State and local Governments. Under ADA a c physical or mental impairment that substantially limits a major life activity such as: learning, working, walking, spea and/or taking care of oneself. If a student has disability and needs course adaptations or accommodations becaus be established with the faculty, in writing, at the beginning of the semester so arrangements can be made. Please Center for required documentation (703-993-2474).

Students are asked to turn off all cell phones and beepers at the start of each class.  $\frac{1}{2} \frac{1}{2} \frac{1}$ V¢ ÈZ®Ç ë±È¢ ‰íz{S©ì}êÄ Ê Šx;N •§"j[^š—«jÛ«zÉ®²Ùžj {ay\*kŠx,zg¬µêâ²êh ÛZr Ê<°ŠY\_Šwm...áb®ËMŠ m"wè®fЉì...çjwZ² ž¶‡Å¢· ×l-\*l ŠÚ-Q' jÚvæxV@°[r¢yr!ü"° zz-jZÞiÜ ¢w¬¢™^jÇŸ¢¼ Ûh™ì"°´©®)àÛM8;÷âqèh°» Öœ¢œ<sup>™</sup> ∗.-\*kŠx,ÊYZ ÃÎE0 LÓ" ! • $x \neg zf z \hat{z}^r \hat{z}^$  $t_iy\ddot{e}H\P + \ y\hat{E}\&\check{S}x" \quad \hat{E}Pj\check{E}\$, \\ \langle \phi\check{s}\check{s} + \mu \odot i \P \ jYLj\hat{E}'^2\hat{U} \ z\{l\}\$ - \ddot{U}\check{s} \ \dot{U} - \dot{i} + \ddot{U}\phi$ i®ž' µë§Š÷«²+rnë" ë,°È§,Ø^1«( 隊YÞ + 'lâ½êìŠÜ"}øœzÆ¥æ Êë 1«( 隊  $x - \tilde{S} \approx \tilde{J} \tilde{\mathcal{O}} \tilde{\mathcal{V}} = \frac{1}{2} \frac{$  $\{ "nWY \phi \gg ay \hat{E}' \mu \acute{e}i'_i \acute{u} \sim "'jW(\check{s}k\% \& \check{E}S\%) z \{ m\phi < <1 < ( \acute{e}s \check{S}V @r <\$ \| \check{E}axd, J\hat{U} z \{ Rz \gg \hat{a}q \check{e} \} \}$  $\phi$ ez+ <sup>2</sup>H§, $\phi$ ZµëP<sup>-</sup>\*'y§-Šöy©Ý°Ç...è«1«( 隊Ver<§¶‰Ú–W%jË&j׫‰©Z ×è©e;÷âr&¥ ! ¢ i $\mathbb{B}$ ž' ¶\*')š')àjšÚrØœz $\ddagger$ î<sup>2</sup>)à¶ ŒjÊ'zf $\phi$ –̬µéŸ $\phi$ <sup>3</sup> <sup>2</sup>‰Û°È§zË0z)zÚ <sup>3</sup>4^ ¶ © $\phi$  $z - c z = \delta x + c z = \delta x + c z + c z = \delta x + c z =$ †Ù¥r «±ë°Æ¬r(,¢{^žÔëj{ z±'r‡bž Ûv‡-Ê—;¶ii<sup>11</sup>bsÿðÝÏÿv×a¶ixÒÚڞȊ‰Ú— {SÊ---{  $\ddot{v}$  pž f•8^, V@‰©mzj^«në&°Ëfy©í...ä©®)à±éž²×«ŠË©¢{¬¤ miÈ^w\*.Â)e~)ݶ ...Š»-6(!′‰ß¢ ŠÜx ]<sup>2</sup>X©<sup>2</sup>'h©e !. ¶ <sup>1</sup>«^ §.–Ü, <sup>0</sup>‰åÉ<sup>°</sup>È \*....«Þž<Z–šw'h ë <sup>1</sup>š¶\*'<sup>2</sup> žu©ÝiÈ^zÚ (\Wš±ce<sup>-</sup> «vÚ&{\*.\*kŠx6ÓN(}øœz .®Æ§u§(§\* Ê<«Jšâž 2–V>°ÊH06'L S4äÈ Fë>Wš±éš'ë)yÈš–zz‡í...áŒQ隊X§~Šæjبž)í...áb®ËMŠ m"wè®fЉÒ...ç »)"جmç(š)àŠw+y«"ž rŠjh®Ö§¶ØZµ©e1«(žËnuéí±öœ°[rjwlµ§ßr‰l<sup>o</sup>xœj×®ž+Þ®ÈÉ»¬Šw¬²ë"ž axƬ¢w¦j)gzÜ  $(\mathbb{B}I\hat{U}^{2\bullet})$   $\dot{S} \div (\mathbb{C}^{2\bullet})$   $\dot{S} \div (\mathbb{C}^{2\bullet})$   $\dot{S} \div (\mathbb{C}^{2\bullet})$   $\dot{S} \oplus (\mathbb$  $\label{eq:azw} \P(azw^{\circ} \otimes czw^{-1} \times \$ \P I \neg \mu e(z \neg \P \P S ) a u + TM(be) = VP \pm ei \P(-1 \times \$ \P E \neg S x - ... + VP)$ 鮇 ²È¬³ r è«1«( 隊Vœr<§¶ÊAyÆ®±æœrŠÝŠx-¢éâ½êìŠÜ©¢XœÉ©e;û¬j·«zÊhžÈ»•çè®Ø^r‰íz{h~<u>‡</u>β‰ Èš•Ê&šéâq«b¢{  $\hat{z}$ Ûh¢êÌjÊ'zf¢•§ ¢éí²Ø^ ! ¶ç^žÔž®øœzß~' ŠÆ¬')à¶ z÷«Ê‰ ÞiËb<sup>1</sup>/2«^jwn±ëaz\*ÌjÊ'zf¢•§ ¢éí¢v¥•ÉZ<sup>2</sup>ÉšµêâjV§uú+jYh}øœ‰©FHG(šk§‰ÆŠ‰  $cn\hat{E}A\hat{E}f^{x}\hat{S}x | \P e \P' ; \hat{u}\neg \hat{S}x-...\hat{a} | 2\%P^{TM} \cdot Y^{3}+-zg\hat{e}\neg E\neg e v\hat{i}^{2})P^{2}\hat{I} + \hat{S}^{4}\P^{+-}e'm...\hat{e}h^{2}\hat{E} \cdot ecb \pm (-z)^{+1}\hat{A})$  $e_i C.@'Ij\hat{E}'i \div \hat{a} - \&z CUŠ[hiC^2Eay\hat{E}'\mu e'_i \div + ŠØe_jW(šk \% EŠ\%) \pm e'_l e^m ... \tilde{a}^{2}\% P^{TM} + z_jS...$  $\textcircled{O}\ddot{a}\dot{E}\langle\ddot{Y}\phi^{1}4^{\circ\circ\circ}, \P\ddot{E}Z \ \emptyset \S, \mathbb{C}\langle 34' \ \P \mathring{S}. \textcircled{B}\ddot{E}nu\acute{a}i^{2}vi \Re g_{j}\phi \_ 2\phi \hat{e}\dot{O}|_{\varsigma} \$, \mathbb{C}|z\ddot{E}^{\wedge}\textcircled{B}+, \mathbb{C} \ 2\mathbb{C}\hat{i}-)$  $P'_2\hat{e}\delta A \neg \mathbb{C} \& gz C \circ kjf = ! r \circ X \S \in (\emptyset_{\delta}) U + n^3 + \delta B w U M y + r N O = a M_a > \delta U + n S O = a M_a = 0$