

บทที่ 5

การพัฒนาโปรแกรม

การพัฒนาโปรแกรมใช้ภาษา PHP โดยทำงานร่วมกับ โปรแกรม Edit Plus 3.0 และ Dreamweaver 8 เป็นเครื่องมือในการพัฒนา ระบบตรวจสอบและวางแผนการศึกษา นักศึกษาระดับปริญญาตรี มหาวิทยาลัยเชียงใหม่ โดยมีส่วนการทำงานของชุดคำสั่ง ดังนี้

5.1 การตรวจสอบการศึกษา เป็นการตรวจสอบข้อมูลผลการเรียนของนักศึกษาแต่ละคน ซึ่งทำการแสดงผลโดยใช้รหัสนักศึกษาเป็นคำค้น และแสดงผลลัพธ์เป็นรายละเอียดผลการเรียนของแต่ละภาคการศึกษา สามารถแสดงคำสั่งที่ใช้ในการเขียนโปรแกรมได้ดังนี้

```
$sql = "SELECT student_9.* FROM student_9,major_9,faculty_9 WHERE id = '$id' AND (student_9.fac = faculty_9.code AND student_9.gen_fac = faculty_9.gen_fac) AND (student_9.major = major_9.major_code AND student_9.fac = major_9.faculty_code AND student_9.gen_fac = major_9.gen_fac AND student_9.std_level = major_9.std_level)";
$result = mysql_db_query($dbname_reg,$sql);
if(mysql_num_rows($result)>0)
{
    $rs = mysql_fetch_array($result);
    $id=$rs["id"];
    $fac_id=$rs["fac"];
    $major_id=$rs["major"];
    $total_credit=getCreditTotalByMajorId($major_id,$fac_id);
    $total_credit_current=getCreditTotalAcademicById($id);
}
else
{
    // $id=";
    $fac_id=";
    $major_id=";
    $total_credit=0;
    $total_credit_current=0;
}
?>
<form action="check_study.php" method="get" name="frmsearch">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
```

```

<tr>
  <td class="contentheading"> ตรวจสอบผล
  การศึกษา &nbsp;&nbsp;&nbsp;</td>
  <td align="right" valign="bottom">&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td colspan="2">&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td colspan="2">รหัสนักศึกษา : <input type="text" name="txtSearch" value="<?php print($txtSearch);?>" />
<input type="submit" name="Submit" value="ค้นหาข้อมูล" /></td>
</tr>
</table>
</form>
<br/>
<!--End Search-->
</td>
  <td background="../images/icon/lineout_05.gif" height="100%"> </td>
</tr>
<tr>
  <td></td>
  <td background="../images/icon/lineout_07.gif" width="100%"></td>
  <td></td>
</tr>
</table><table border="0" cellpadding="0" cellspacing="0" width="100%">
  <tr>
    <td></td>
    <td background="../images/icon/lineout_02.gif" width="100%"></td>
    <td></td>
  </tr>
  <tr>
    <td background="../images/icon/lineout_04.gif" height="100%"> </td>
    <td>
<!-- Search-->
<table width="100%" border="0" cellspacing="0" cellpadding="0">

```

```

<tr>
  <td colspan="4" class="sectiontableheader">ข้อมูลส่วนตัว นักศึกษา<?php if($id!=""){ print("รหัส ".$id);}else { print('
');}>&nbsp;</td>
</tr>
<tr>
  <td width="17%" align="right" valign="top" class="highlight">ชื่อ-สกุล : </td>
  <td width="32%" align="left" valign="top" class="inputbox"><?php print(getStudentNameById($id))?>&nbsp;</td>
  <td width="26%" class="highlight">&nbsp;</td>
  <td width="25%" class="inputbox">&nbsp;</td>
</tr>
<tr>
  <td align="right" valign="top" class="highlight">คณะ : </td>
  <td align="left" valign="top" class="inputbox"><?php print(getFacultyName($fac_id))?>&nbsp;</td>
  <td align="right" valign="top" class="highlight">จำนวนหน่วยกิตที่ต้องเรียน : </td>
  <td align="left" valign="top" class="inputbox"><?php print($total_credit)?>&nbsp;</td>
</tr>
<tr>
  <td align="right" valign="top" class="highlight">สาขาวิชา : </td>
  <td align="left" valign="top" class="inputbox"><?php print(getMajorName($major_id,$fac_id))?>&nbsp;</td>
  <td align="right" valign="top" class="highlight">จำนวนหน่วยกิตที่ได้ : </td>
  <td align="left" valign="top" class="inputbox"><?php print($total_credit_current)?>&nbsp;</td>
</tr>
<tr>
  <td align="right" valign="top" class="highlight">GPA เฉลี่ย ปัจจุบัน : </td>
  <td align="left" valign="top" class="inputbox"><?php
print(number_format(getCurrentGPA_GPAById($id),2,!,,))?>&nbsp;</td>
  <td align="right" valign="top" class="highlight">จำนวนหน่วยกิตที่เหลือ : </td>
  <td align="left" valign="top" class="inputbox"><?php print($total_credit-$total_credit_current)?>&nbsp;</td>
</tr>
</table>
<br />
<br />
<!-- Display table grade-->
<?php
    $max_year_study=0;
    $content="";

    $sql = "SELECT MAX(year_study) AS max_year_study FROM course_study WHERE major='$major_id' AND
fac='$fac_id'";

```

```

$result = mysql_db_query($dbname,$sql);

if(mysql_num_rows($result)>0)
{
    $content.='<table width="80%" border="0" cellspacing="0" cellpadding="0" align="center">';
    while($rs = mysql_fetch_array($result))
    {
        $max_year_study=$rs["max_year_study"];
    }

    for($year_study=1;$year_study<=$max_year_study;$year_study++)
    {
        $content.="";
        $content.='<tr>';
        $content.='<td colspan="2" align="center">&nbsp;&nbsp;&nbsp;</td>';
        $content.='</tr>';
        $content.="";
        $content.='<tr>';
        $content.='<td colspan="2" align="center" class="highlight">ปีการศึกษาที่ '.$year_study.'
</td>';

        $content.='</tr>';
        $content.='<tr>';

        //term
        $sql_term="SELECT MAX(term) AS max_term FROM course_study WHERE major='$major_id' AND fac='$fac_id' AND
year_study='$year_study'";
        $result_term = mysql_db_query($dbname,$sql_term);
        if(mysql_num_rows($result_term)>0)
        {
            while($rs_term = mysql_fetch_array($result_term))
            {
                $max_term= $rs_term["max_term"];
            }

            for($term=1;$term<=$max_term;$term++)
            {
                $content.='<td valign="top">';
                $content.='<table width="100%" border="0" cellspacing="0"
cellpadding="0">';
                $content.='<tr>';

```

```

$content.='<td colspan="3" align="center" class="inputbox">ภาคเรียนที่ '.$term.' </td>';
$content.='</tr>';
$content.='<tr>';
$content.='<td width="44%" align="center" class="inputbox">รหัสกรรบานวิชา</td>';
$content.='<td width="28%" align="center" class="inputbox">หน่วยกิต</td>';
$content.='<td width="28%" align="center" class="inputbox">เทอม</td>';
$content.='</tr>'; // course

$sql_course="SELECT * FROM course_study WHERE major='$major_id' AND fac='$fac_id' AND year_study='$year_study'
AND term='$term' ORDER BY course_no ASC";

$result_course = mysql_db_query($dbname,$sql_course);
if(mysql_num_rows($result_course)>0){
while($rs_course = mysql_fetch_array($result_course)){
    $grade_course="";
    $course_no=$rs_course["course_no"];
    $course="";
    $link='N';
    if($rs_course["is_condition"]=='N' && ($rs_course["is_minior"]=='N')){
        if(strlen(trim($course_no))==6)
            $grade_course=getGradeCourseAcademicById($sid,$course_no);
//style
        if(!empty($grade_course)){
            $course='<span style="color:#00FF00">'.$course_no.'</span>'; //green
        }
        else
        {
            $course='<span
style="color:#CC0000">'.$course_no.'</span>'; //red
        }
    }
    elseif(strlen(trim($course_no))>6)
    {
        $each_course = explode
("or",$course_no);

        for($i=0;$i<sizeof($each_course);$i++)
        {

            $grade_course.=getGradeCourseAcademicById($sid,trim($each_course[$i]));

//style

```

```

if(!empty($grade_course))
{
$course.='<span style="color:#00FF00">'.Seach_course[$i].</span> or'; //green
}
else
{
$course.='<span style="color:#CC0000">'.Seach_course[$i].</span> or'; //red
}
$course = substr($course,0,-
2);
}
else
{
$link='Y';
$href="";
if($rs_course["is_condition"]=='Y')
{
$course_search=substr($rs_course["course_no"],0,strpos($rs_course["course_no"],'.'));

$href='course_condition.php?course_search='.$course_search.'&fac_id='.$fac_id.'&major_id='.$major_id.'&id='.$id.'.';
}
if($rs_course["is_minor"]=='Y')
{
$href='course_condition_minor.php?fac_id='.$fac_id.'&major_id='.$major_id.'&id='.$id.'.';
}
$course='<a href="'.$href.'"
target="_blank" style="color:#0000FF;">'.course_no.'</a>'; //blue
}
// print - for no grade
if(empty($grade_course))

```

```

        {
            $grade_course='';
        }

        $content.='<tr>';
        $content.='<td align="center"> '.$course.'</td>';
        $content.='<td
align="center">'.$srs_course["credit"].'</td>';
        $content.='<td
align="right">'.$grade_course.'</td>';
        $content.='</tr>';
    }
}
//end course
$content.='</table>';
$content.='</td>';
}
}
$content.='</tr>';
}
$content.='</table>';

print($content);
}
?>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="6%">&nbsp;&nbsp;&nbsp;</td>
<td width="94%"><span style="color:#CC0000">** สีแดง หมายถึง ภาระงานวิชาที่ยังไม่ลงทะเบียน</span>&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td>&nbsp;&nbsp;&nbsp;</td>
<td><span style="color:#00FF00">** สีเขียว หมายถึง ภาระงานวิชาที่ลงทะเบียน</span> &nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td>&nbsp;&nbsp;&nbsp;</td>
<td><span style="color:#0000FF">** สีน้ำเงิน หมายถึง ภาระงานวิชาที่มีเงื่อนไข(สามารถคลิกเพื่อดูรายละเอียดได้)</span>&nbsp;&nbsp;&nbsp;</td>
</tr>
</table>

```

5.2 การวางแผนการศึกษา เพื่อให้ให้นักศึกษาสามารถวางแผนการเรียนในอนาคต โดยอาศัย ข้อมูลการศึกษาเดิม ช่วยในการวางแผนกระบวนวิชาที่ต้องลงทะเบียน รวมไปถึงคาดการณ์ผล การศึกษาที่ได้รับ เพื่อให้การเลือกลงทะเบียนกระบวนวิชาและการศึกษา เป็นไปอย่างมี ประสิทธิภาพมากยิ่งขึ้น สามารถแสดงคำสั่งที่ใช้ในการเขียน โปรแกรมได้ดังนี้

```

Sid=$txtSearch;

$fac_id="";
$major_id="";
$total_credit=0;
$total_credit_current=0;

$ssql = "SELECT student_9.* FROM student_9,major_9,faculty_9 WHERE id = '$id' AND (student_9.fac = faculty_9.code AND
student_9.gen_fac = faculty_9.gen_fac) AND (student_9.major = major_9.major_code AND student_9.fac =
major_9.faculty_code AND student_9.gen_fac = major_9.gen_fac AND student_9.std_level = major_9.std_level)";
$result = mysql_db_query($dbname_reg,$ssql);
if(mysql_num_rows($result)>0)
{
    $rs = mysql_fetch_array($result);
    $id=$rs["id"];
    $fac_id=$rs["fac"];
    $major_id=$rs["major"];
    $total_credit=getCreditTotalByMajorId($major_id,$fac_id);
    $total_credit_current=getCreditTotalAcademicById($id);
}
else
{
    //$id="";
    $fac_id="";
    $major_id="";
    $total_credit=0;
    $total_credit_current=0;
}

$sum_gpa_current='0';
//Find SUM GPA

$ssql = "SELECT * FROM academic WHERE id='$id' AND (grade='A' OR grade='B' OR grade='C' OR grade='D' OR
grade='X' OR grade='Y' OR grade='Z') ORDER BY grade ASC";
$result = mysql_db_query($dbname_reg,$ssql);
if(mysql_num_rows($result)>0)

```



```

    {
        while($rs=mysql_fetch_array($result))
        {
            $sum_gpa_current+=(($rs["credit"]*valuegrade(trim($rs["grade"]))));
        }
    }
    //print($sum_gpa_current);
?>
<form action="plan_study.php" method="get" name="frmsearch">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td class="contentheading"> วางแผน
การศึกษา &nbsp;  </td>
<td align="right" valign="bottom">&nbsp;  </td>
</tr>
<tr>
<td colspan="2">&nbsp;  </td>
</tr>
<tr>
<td colspan="2">รหัสนักศึกษา : <input type="text" name="txtSearch" value="<?php print($txtSearch);?>" />
<input type="submit" name="Submit" value="ค้นหาข้อมูล" /></td>
</tr>
</table>
</form>
<br/>
<!--End Search-->
</td>
<td background=" ../images/icon/lineout_05.gif" height="100%">
</td>
</tr>
<tr>
<td></td>
<td background=" ../images/icon/lineout_07.gif" width="100%"></td>
<td></td>
</tr>
</table><table border="0" cellpadding="0" cellspacing="0" width="100%">
<tr>
<td></td>
<td background=" ../images/icon/lineout_02.gif" width="100%"></td>
<td></td>

```

```

</tr>
<tr>
<td background=" ../images/icon/lineout_04.gif" height="100%"> </td>
<td>
<!-- Search-->
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td colspan="4" class="sectiontableheader">ข้อมูลส่วนตัว นักศึกษา<?php if($id!=""){ print("รหัส ".$id);}else{ print('
');}>&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td width="17%" align="right" valign="top" class="highlight">ชื่อ-สกุล : </td>
<td width="32%" align="left" valign="top" class="inputbox"><?php print(getStudentNameById($id))?>&nbsp;&nbsp;&nbsp;</td>
<td width="26%" class="highlight">&nbsp;&nbsp;&nbsp;</td>
<td width="25%" class="inputbox">&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td align="right" valign="top" class="highlight">คณะ : </td>
<td align="left" valign="top" class="inputbox"><?php print(getFacultyName($fac_id))?>&nbsp;&nbsp;&nbsp;</td>
<td align="right" valign="top" class="highlight">จำนวนหน่วยกิตที่ต้องเรียน : </td>
<td align="left" valign="top" class="inputbox"><?php print($total_credit)?>&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td align="right" valign="top" class="highlight">สาขาวิชา : </td>
<td align="left" valign="top" class="inputbox"><?php print(getMajorName($major_id,$fac_id))?>&nbsp;&nbsp;&nbsp;</td>
<td align="right" valign="top" class="highlight">จำนวนหน่วยกิตที่ได้ : </td>
<td align="left" valign="top" class="inputbox"><?php print($total_credit_current)?>&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
<td align="right" valign="top" class="highlight">GPA เฉลี่ย ปัจจุบัน : </td>
<td align="left" valign="top" class="inputbox"><?php
print(number_format(getCurrentGPA_GPABYId($id),2,!,,))?>&nbsp;&nbsp;&nbsp;</td>
<td align="right" valign="top" class="highlight">จำนวนหน่วยกิตที่เหลือ : </td>
<td align="left" valign="top" class="inputbox"><?php print($total_credit-$total_credit_current)?>&nbsp;&nbsp;&nbsp;</td>
</tr>
</table>
<br />
<form action="plan_study_print.php?txtSearch=<?php print($id);?" method="post" name="frmmain" target="_blank">

```

```

<div align="right"><input name="btnPrint" type="submit" value="พิมพ์รายงาน" class="button"/>
</div><br />

<table width="100%" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td width="33%" class="highlight" style="border-style:solid; border-color:#333333; border-width:1px;"><div align="center">
ข้อมูลลงทะเบียน</div></td>
    <td width="33%" class="highlight" style="border-style:solid; border-color:#333333; border-width:1px;"><div align="center">
ข้อมูลลงทะเบียนภาคการศึกษา &nbsp;<?php print($constant_term.'/$constant_year)?></div></td>
    <td width="34%" class="highlight" style="border-style:solid; border-color:#333333; border-width:1px;"><div align="center">
ภาคการณ้ผลการศึกษา ภาคการศึกษาต่อไป</div></td>
  </tr>
  <tr>
    <td valign="top" style="border-style:solid; border-color:#333333; border-width:1px;">
<!-- Academic Data-->
<?php
$sql = "SELECT id,year,semester,gpa,ogpa FROM gpa WHERE id='$id' ORDER BY year ASC,semester ASC"; //Edit sql
$result = mysql_db_query($dbname_reg,$sql);

if(mysql_num_rows($result)>0)
{
?>
  <table width="100%" border="0" cellspacing="0" cellpadding="3">
    <tr>
      <td>ภาคการศึกษา</td>
      <td>เกรดเฉลี่ย(เฉพาะเทอม)</td>
      <td>เกรดเฉลี่ย(สะสม)</td>
      <td>&nbsp;</td>
    </tr>
    <tr>
      <td><?php print($rs["semester"].'/$rs["year"])?>&nbsp;</td>
      <td><?php print($rs["ogpa"])?>&nbsp;</td>
      <td><?php print($rs["gpa"])?>&nbsp;</td>
      <td><a href="course_term_detail.php?term=<?php print($rs["semester"])?>&year=<?php print($rs["year"])?>&id=<?php
print($id)?>" target="_blank">ข้อมูล</a>&nbsp;</td>
    </tr>
  </table>

```

```

<?php
    }
?>
</table>
<?php
}
else
{
?>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td align="center">ไม่พบข้อมูล</td>
</tr>
</table>
<?php
}
?>

</td>
<td valign="top" style="border-style:solid; border-color:#333333; border-width:1px;">
<!-- reg Data-->
<?php
$sql = "SELECT * FROM reg WHERE id='$id' AND semester='$constant_term' AND year='$constant_year'"; //Edit sql
$result = mysql_db_query($dbname_reg,$sql);

if(mysql_num_rows($result)>0)
{
?>

<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td align="center">กระบวนวิชา</td>
<td align="center">หน่วยกิต</td>
<td colspan="2" align="center">เกรด</td>
</tr>
<?php
    $sum_reg_credit=0;
    while($rs = mysql_fetch_array($result))
    {
        $reg_credit=$rs["crelec"]+$rs["crelab"];
        $sum_reg_credit+=$reg_credit;

```

```

?>
<tr>
  <td align="center"><?php print($rs["courseno"]);?>&nbsp;</td>
  <td align="center"><input name="reg_credit[]" id="reg_credit" type="hidden" value="<?php print($reg_credit)?>" /><?php
print($reg_credit)?>&nbsp;</td>
  <td colspan="2" align="center"><select name="reg_grade[]" id="reg_grade">
    <option value="4">A</option>
    <option value="3.5">B+</option>
    <option value="3">B</option>
    <option value="2.5">C+</option>
    <option value="2">C</option>
    <option value="1.5">D+</option>
    <option value="1">D</option>
    <option value="0">F</option>
  </select></td>
</tr>
<?php
}
?>
<tr>
  <td align="right">รวม :&nbsp;</td>
  <td align="center"><input name="reg_collect_credit" id="reg_collect_credit" type="text" size="7" value="<?php
print($sum_reg_credit)?>" style="border:none; border-color:#FFFFFF; border-style:none;"/>&nbsp;</td>
  <td colspan="2">&nbsp;</td>
</tr>
<tr>
  <td colspan="2" align="right"><strong>หน่วยกิตสะสมทั้งหมด :</strong></td>
  <td><input name="reg_total_credit" type="text" class="style1" id="reg_total_credit" style="border:none; border-
color:#FFFFFF; border-style:none;" value="" size="7"/></td>
</tr>
<tr>
  <td colspan="2" align="right"><strong>หน่วยกิตคำนวณทั้งหมด :</strong></td>
  <td><input name="reg_total_credit_current" type="text" class="style2" id="reg_total_credit_current" style="border:none;
border-color:#FFFFFF; border-style:none;" value="" size="7"/></td>
</tr>
<tr>
  <td colspan="2" align="right"><strong>เกรดเฉลี่ย :</strong></td>
  <td><input name="reg_gpa" type="text" class="style3" id="reg_gpa" style="border:none; border-color:#FFFFFF; border-
style:none;" value="" size="7"/></td>
</tr>

```



```

        $SqlData = "SELECT DISTINCT courseno,(crelec+crelab) as credit FROM cmr30
WHERE courseno LIKE '$rs_Main[0]%' ORDER BY courseno ";

        $ResultData = mysql_db_query($dbname_reg,$SqlData)or die(mysql_error());
        $nCnt = mysql_num_rows($ResultData);
        if($nCnt>0)
        {
            while($rs_Data = mysql_fetch_array($ResultData))
            {
                ?>
                print($rs_Data[1]?>)"
                ,("<?php print($rs_Data[0])?>','<?php
                <?php
                //end while sub
            }
            ?>
            );
            <?php
            //end if sub
        }
        else
        {
            ?>
            );
            <?php
            // case no data end array
            //end else sub
        }
        //end while main
    }
    //end if main
?>
/// _____ End Array major _____ ///
/// _____ Begin function GetMajor _____ ///
function GetCMR30(CurrentListbox,PreviousListbox,key)
{
    var selectedArray = eval("IDP"+key);
    while (selectedArray.length < CurrentListbox.options.length)
    {
        CurrentListbox.options[(CurrentListbox.options.length - 1)] = null;
    }
    for (var i=0; i < selectedArray.length; i++)
    {
        eval("CurrentListbox.options[i]=" + "new Option" + selectedArray[i]);
    }
}

```

```

if (PreviousListbox.options[0].value == "")
{
    PreviousListbox.options[0]= null;
}
}
/// _____ End function get GetMajor _____ ///
</script>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td align="left" colspan="3">เลือกกระบวนวิชาเพื่อภาคการัน </td>
</tr>
<tr>
<td align="left" colspan="3">
<select name="pre_course" id="pre_course"
onChange="GetCMR30(document.getElementById('sim_course_no'),document.getElementById('pre_course'),document.getElem
entById('pre_course').options[document.getElementById('pre_course').selectedIndex].value);">
<option value="0">- - เลือก - -</option>
<?php
    $rs_data = getPreCourse();
    foreach($rs_data as $nCntData => $eachdata)
    {
        if($nCntData==$fac)
        {
            print"<option value = $nCntData
selected='selected'> $eachdata </option>";
        }
        else
        {
            print"<option value = $nCntData> $eachdata
</option>";
        }
    }
    $rs_data = "";
?>
</select>
<br />
<select name="sim_course_no" id="sim_course_no">
</select>
<input name="btnAdd" type="button" value="เพิ่ม" onclick="addFile()"/>
<br /><br /></td>

```



```

</tr>
<tr>
  <td align="left">กระบวนวิชา</td>
  <td align="left">หน่วยกิต</td>
  <td align="left">เกรด</td>
</tr>
<tr>
  <td colspan="3">
    <ol id="files-root">
    </ol>
  </td>
</tr>
<tr>
  <td align="right">รวม :&nbsp;&nbsp;&nbsp;</td>
  <td align="center"><input name="sim_credit" id="sim_credit" type="text" size="7" value="" style="border:none; border-color:#FFFFFF; border-style:none;">&nbsp;&nbsp;&nbsp;</td>
  <td>&nbsp;&nbsp;&nbsp;</td>
</tr>
<tr>
  <td colspan="2" align="right"><strong>หน่วยกิตสะสมทั้งหมด :</strong></td>
  <td><input name="sim_total_credit" type="text" class="style5" id="sim_total_credit" style="border:none; border-color:#FFFFFF; border-style:none;" value="" size="7"></td>
</tr>
<tr>
  <td colspan="2" align="right"><strong>หน่วยกิตคำนวณทั้งหมด :</strong></td>
  <td><input name="sim_total_credit_current" type="text" class="style6" id="sim_total_credit_current" style="border:none; border-color:#FFFFFF; border-style:none;" value="" size="7"></td>
</tr>
<tr>
  <td colspan="2" align="right"><strong>เกรดเฉลี่ย :</strong></td>
  <td><input name="sim_gpa" type="text" class="style7" id="sim_gpa" style="border:none; border-color:#FFFFFF; border-style:none;" value="" size="7"></td>
</tr>
<tr>
  <td colspan="2" align="right"><strong></strong></td>
  <td><input name="sim_gpa_avg" type="text" class="style8" id="sim_gpa_avg" style="border:none; border-color:#FFFFFF; border-style:none;" value="" size="7"></td>
</tr>
<tr>
  <td colspan="4" align="right"><input name="btnCalculateSimGrade" type="button" value="คาดการณ์ผลการศึกษา"

```

```

onclick="CalculateSimGrade();" /></td>

</tr>
</table>

</td>

</tr>
</table>
</form>
<script type="text/javascript">

function number_format (number, decimals, dec_point, thousands_sep) {
    // Formats a number with grouped thousands
    //
    // version: 1107.2516
    // discuss at: http://phpjs.org/functions/number_format // + original by: Jonas Raoni Soares Silva
    (http://www.jsfromhell.com)
    // + improved by: Kevin van Zonneveld (http://kevin.vanzonneveld.net)
    // + bugfix by: Michael White (http://getsprink.com)
    // + bugfix by: Benjamin Lupton
    // + bugfix by: Allan Jensen (http://www.winternet.no) // + revised by: Jonas Raoni Soares Silva
    (http://www.jsfromhell.com)
    // + bugfix by: Howard Yeend
    // + revised by: Luke Smith (http://lucassmith.name)
    // + bugfix by: Diogo Resende
    // + bugfix by: Rival // + input by: Kheang Hok Chin (http://www.distantia.ca/)
    // + improved by: davook
    // + improved by: Brett Zamir (http://brett-zamir.me)
    // + input by: Jay Klehr
    // + improved by: Brett Zamir (http://brett-zamir.me) // + input by: Amir Habibi (http://www.residence-mixte.com/)
    // + bugfix by: Brett Zamir (http://brett-zamir.me)
    // + improved by: Theriault
    // + input by: Amirouche
    // + improved by: Kevin van Zonneveld (http://kevin.vanzonneveld.net) // * example 1: number_format(1234.56);
    // * returns 1: '1,235'
    // * example 2: number_format(1234.56, 2, ',', '');
    // * returns 2: '1 234,56'
    // * example 3: number_format(1234.5678, 2, ',', ''); // * returns 3: '1234.57'
    // * example 4: number_format(67, 2, ',', '');
    // * returns 4: '67,00'
    // * example 5: number_format(1000);
    // * returns 5: '1,000' // * example 6: number_format(67.311, 2);

```

```

    /* returns 6: '67.31'
    /* example 7: number_format(1000.55, 1);
    /* returns 7: '1,000.6'
    /* example 8: number_format(67000, 5, ',', '.'); /* returns 8: '67,000,00000'
    /* example 9: number_format(0.9, 0);
    /* returns 9: '1'
    /* example 10: number_format('1.20', 2);
    /* returns 10: '1.20' /* example 11: number_format('1.20', 4);
    /* returns 11: '1.2000'
    /* example 12: number_format('1.2000', 3);
    /* returns 12: '1.200'
    /* example 13: number_format('1 000,50', 2, ',', '.'); /* returns 13: '100 050.00'
    /* Strip all characters but numerical ones.
    number = (number + "").replace(/[^0-9+\-Ee.]/g, "");
    var n = !isFinite(+number) ? 0 : +number,
        prec = !isFinite(+decimals) ? 0 : Math.abs(decimals), sep = (typeof thousands_sep === 'undefined' ? ',' : thousands_sep,
        dec = (typeof dec_point === 'undefined' ? '.' : dec_point,
        s = "",
        toFixedFix = function (n, prec) {
            var k = Math.pow(10, prec); return "+" + Math.round(n * k) / k;
        };
    /* Fix for IE parseFloat(0.55).toFixed(0) = 0;
    s = (prec ? toFixedFix(n, prec) : "+" + Math.round(n)).split('.');
    if (s[0].length > 3) { s[0] = s[0].replace(/B(?:=?:\d{3})+(?!d)/g, sep);
    }
    if ((s[1] || "").length < prec) {
        s[1] = s[1] || "";
        s[1] += new Array(prec - s[1].length + 1).join('0');
    }
    return s.join(dec);
}

function CalculateRegGrade()
{
    var i=0;
    var sum_credit=0;
    var sum_collect_credit=0;
    var sum_grade=0;
    var reg_gpa=0;
    var total_credit_current=<?php print($total_credit_current)?>;

```

```

for (i=0;i<document.frmmain.reg_credit.length;i++)
{
    //alert(frmmain.reg_credit[i].options[frmmain.reg_credit[i].selectedIndex].value);
    sum_collect_credit+=parseFloat(frmmain.reg_credit[i].value);
    if(frmmain.reg_grade[i].options.value!='0')
    {
        sum_credit+=parseFloat(frmmain.reg_credit[i].value);

        sum_grade+=(parseFloat(frmmain.reg_credit[i].value)*parseFloat(frmmain.reg_grade[i].options.value));
    }
}
reg_gpa=sum_grade/sum_collect_credit;

frmmain.reg_gpa.value=number_format (reg_gpa, 2, ',', '');
frmmain.reg_collect_credit.value=sum_credit;

frmmain.reg_total_credit.value=parseFloat(total_credit_current)+parseFloat(sum_credit);
frmmain.reg_total_credit_current.value=parseFloat(total_credit_current)+parseFloat(sum_collect_credit);

var reg_gpa_avg=0;
var sum_gpa_current=<?php print($sum_gpa_current);?>;
//reg_gpa_avg = (sum_gpa_current+sum_grade)/(parseFloat(total_credit_current)+parseFloat(sum_collect_credit));
reg_gpa_avg = (sum_gpa_current+gpa_now)/2;
frmmain.reg_gpa_avg.value=number_format (reg_gpa_avg, 2, ',', '');
}

function CalculateSimGrade()
{
    var i=0;
    var sum_credit=0;
    var sum_collect_credit=0;
    var sum_grade=0;
    var sim_gpa=0;
    var total_credit_current=frmmain.reg_total_credit.value;
    var total_collect_credit_current=frmmain.reg_total_credit_current.value;

    for (i=0;i<document.frmmain.txt_sim_course_credit.length;i++)
    {
        sum_collect_credit+=parseFloat(frmmain.txt_sim_course_credit[i].value);

```

```

        if(frmmain.sim_grade[i].options.value!='0')
        {
            sum_credit+=parseFloat(frmmain.txt_sim_course_credit[i].value);

            sum_grade+=(parseFloat(frmmain.txt_sim_course_credit[i].value)*parseFloat(frmmain.sim_grade[i].options.value));
        }
    }
    sim_gpa=sum_grade/sum_collect_credit;

    frmmain.sim_gpa.value=number_format (sim_gpa, 2, '.', '');
    frmmain.sim_credit.value=sum_credit;

    frmmain.sim_total_credit.value=parseFloat(total_credit_current)+parseFloat(sum_credit);
    frmmain.sim_total_credit_current.value=parseFloat(total_collect_credit_current)+parseFloat(sum_collect_credit);

    var sim_gpa_avg=0;
    var sum_gpa_current=<?php print($sum_gpa_current);?>;
    var reg_gpa=0;
    for (i=0;i<document.frmmain.reg_credit.length;i++)
    {
        if(frmmain.reg_grade[i].options.value!='0')
        {
            reg_gpa+=(parseFloat(frmmain.reg_credit[i].value)*parseFloat(frmmain.reg_grade[i].options.value));
        }
    }

    sim_gpa_avg =
    (sum_gpa_current+sum_grade+reg_gpa)/(parseFloat(total_collect_credit_current)+parseFloat(sum_collect_credit));
    frmmain.sim_gpa_avg.value=number_format (sim_gpa_avg, 2, '.', '');
}

var gFiles = 0;

function addFile()
{
    if(gFiles<11)
    {
        var li = document.createElement('li');
        li.setAttribute('id', 'file-' + gFiles);
    }
}

```

```

li.innerHTML = '<input type="text" name="txt_sim_course_no[]" id="txt_sim_course_no"
value="'+document.getElementById('sim_course_no').options[document.getElementById('sim_course_no').selectedIndex].innerH
TML+'" size="7" style="border:none; border-color:#FFFFFF; border-style:none;">&nbsp;<input type="text"
name="txt_sim_course_credit[]" id="txt_sim_course_credit" value="'+
document.getElementById('sim_course_no').options[document.getElementById('sim_course_no').selectedIndex].value
+'" size="7" style="border:none; border-color:#FFFFFF; border-style:none;">&nbsp;<select name="sim_grade[]"
id="sim_grade"><option value="4">A</option> <option value="3.5">B+</option> <option value="3">B</option>
<option value="2.5">C+</option> <option value="2">C</option> <option value="1.5">D+</option> <option
value="1">D</option> <option value="0">F</option> </select> *&nbsp;;
document.getElementById('files-root').appendChild(li);
gFiles++;
//addPerson();
}
else
{
alert("Maximum 12 course");
}
}
function removeFile(aId)
{
gFiles--;
var obj = document.getElementById(aId);
obj.parentNode.removeChild(obj);
}
</script>
<br/>
<br />
<br/>
<!--End Search-->
</td>
<td background="../../images/icon/lineout_05.gif" height="100%"> </td>
</tr>
<tr>
<td></td>
<td background="../../images/icon/lineout_07.gif" width="100%"></td>
<td></td>
</tr>
</table>

```

5.3 ใบเสนอเพื่อขออนุมัติปริญญา เป็นการอำนวยความสะดวกให้กับเจ้าหน้าที่ในการจัดกลุ่มกระบวนวิชา โดยอิงหลักสูตรการศึกษาของนักศึกษาแต่ละคน เพื่อเสนอจัดทำใบเสนอเพื่อขออนุมัติปริญญา โดยสามารถแสดงคำสั่งที่ใช้ในการเขียนโปรแกรมได้ดังนี้

```

Sid=$txtSearch;

$fac_id="";
$major_id="";
$minor_id="";
$degree_name="";
$total_credit=0;
$total_credit_current=0;

$ssql = "SELECT student_9.* FROM student_9,major_9,faculty_9 WHERE id = '$Sid' AND (student_9.fac = faculty_9.code AND
student_9.gen_fac = faculty_9.gen_fac) AND (student_9.major = major_9.major_code AND student_9.fac =
major_9.faculty_code AND student_9.gen_fac = major_9.gen_fac AND student_9.std_level = major_9.std_level)";
$result = mysql_db_query($dbname_reg,$ssql);
if(mysql_num_rows($result)>0)
{
    $rs = mysql_fetch_array($result);
    $id=$rs["id"];
    $fac_id=$rs["fac"];
    $major_id=$rs["major"];
    $minor_id=$rs["minor"];
    $degree_name="";
    $total_credit=getCreditTotalByMajorId($major_id,$fac_id);
    $total_credit_current=getCreditTotalAcademicById($id);
}
else
{
    //Sid="";
    $fac_id="";
    $major_id="";
    $minor_id="";
    $degree_name="";
    $total_credit=0;
    $total_credit_current=0;
}

```

```

//insert to course_cmr92

//course_general

$constant_year = "25".substr($id,0,2);
$sql = "SELECT * FROM course_general WHERE year='$constant_year' AND fac='$fac_id' AND major='$major_id'";
$result = mysql_db_query($dbname,$sql);
if(mysql_num_rows($result)>0)
{
    $course_status='G';
    while($rs = mysql_fetch_array($result))
    {
        // For keep all course
        $sarray_non_elective[$scount_non_elective++] = $rs["course_no"];

        $course_status_academic=isCourseAcademic($id,$rs["course_no"]);
        if(isCourseCMR92($id,$rs["course_no"])=='N')
        {
            InsertCourseCMR92($id,$rs["course_no"],$rs["credit"],$course_status_academic,$course_status);
        }
    }
}

//course_core

$sql = "SELECT * FROM course_core WHERE year='$constant_year' AND fac='$fac_id' AND major='$major_id'";
$result = mysql_db_query($dbname,$sql);
if(mysql_num_rows($result)>0)
{
    $course_status='C';
    while($rs = mysql_fetch_array($result))
    {
        // For keep all course
        $sarray_non_elective[$scount_non_elective++] = $rs["course_no"];

        $course_status_academic=isCourseAcademic($id,$rs["course_no"]);
        if(isCourseCMR92($id,$rs["course_no"])=='N')
        {
            InsertCourseCMR92($id,$rs["course_no"],$rs["credit"],$course_status_academic,$course_status);
        }
    }
}

```



```

    }
}

//course_major
$sql = "SELECT * FROM course_major WHERE year='$constant_year' AND fac='$fac_id' AND major='$major_id'";
$result = mysql_db_query($dbname,$sql);
if(mysql_num_rows($result)>0)
{
    $course_status='J';
    while($rs = mysql_fetch_array($result))
    {
        // For keep all course
        $array_non_elective[$count_non_elective++] = $rs["course_no"];

        $course_status_academic=isCourseAcademic($id,$rs["course_no"]);
        if(isCourseCMR92($id,$rs["course_no"])=='N')
        {
            InsertCourseCMR92($id,$rs["course_no"],$rs["credit"],$course_status_academic,$course_status);
        }
    }
}

//course_minor
$sql = "SELECT * FROM course_minor WHERE year='$constant_year' AND minor='$minor_id'";
$result = mysql_db_query($dbname,$sql);
if(mysql_num_rows($result)>0)
{
    $course_status='N';
    while($rs = mysql_fetch_array($result))
    {
        // For keep all course
        $array_non_elective[$count_non_elective++] = $rs["course_no"];

        $course_status_academic=isCourseAcademic($id,$rs["course_no"]);
        if(isCourseCMR92($id,$rs["course_no"])=='N')
        {
            InsertCourseCMR92($id,$rs["course_no"],$rs["credit"],$course_status_academic,$course_status);
        }
    }
}

```

```

    }
}

//Elective
//$sql = "SELECT DISTINCT courseno,credit FROM academic WHERE id='$id' ORDER BY courseno ASC"; //Edit sql
//$result = mysql_db_query($dbname_reg,$sql);

//if(mysql_num_rows($result)>0)
//{
//    $course_status='E';
//    while($rs = mysql_fetch_array($result))
//    {
//        if(isElective($rs["courseno"],$array_non_elective)!='Y')
//        {
//            $course_status_academic=isCourseAcademic($id,$rs["courseno"]);
//            if(isCourseCMR92($id,$rs["courseno"])=='N')
//            {
//                InsertCourseCMR92($id,$rs["courseno"],$rs["credit"],$course_status_academic,$course_status);
//            }
//        }
//    }
//}

//}
?>
<form action="cmr92.php" method="get" name="frmsearch">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td class="contentheading"> ตรวจสอบใบ
เสนอเพื่อขออนุมัติปริญญา &nbsp;</td>
<td align="right" valign="bottom">&nbsp;</td>
</tr>
<tr>
<td colspan="2">&nbsp;</td>
</tr>
<tr>
<td colspan="2">รหัสนักศึกษา : <input type="text" name="txtSearch" value="<?php print($txtSearch);?>" />
<input type="submit" name="Submit" value="ค้นหาข้อมูล" /></td>
</tr>
</table>

```

```

</form>
<br/>

<!--End Search-->
<td>
<td background="../images/icon/lineout_05.gif" height="100%">
</tr>
<tr>
<td></td>
<td background="../images/icon/lineout_07.gif" width="100%"></td>
<td></td>
</tr>
</table><table border="0" cellpadding="0" cellspacing="0" width="100%">
<tr>
<td></td>
<td background="../images/icon/lineout_02.gif" width="100%"></td>
<td></td>
</tr>
<tr>
<td background="../images/icon/lineout_04.gif" height="100%">
<td>
<!-- Search-->
<br/>
<!--Content CMR92-->
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td>
<table width="100%" border="0" align="center" cellpadding="1" cellspacing="0">
<tr>
<td></td>
<td class="style3"><p class="style6">มหาวิทยาลัยเชียงใหม่</p>
<p class="style5"><strong>Chiangmai</strong> <strong>University</strong>
</p></td>
<td class="style3"><div align="center" class="style4">ใบเสนอเพื่อขออนุมัติปริญญา<span
class="style5"> (ฉบับชั่วคราว)</span></div></td>
</tr>
<tr>
<td colspan="3">&nbsp;&nbsp;&nbsp;</td>
</tr>
</table>

```



```

        {
            switch($course_status)
            {
                case 'C':
                    return "วิชา
แกน";
                    break;
                case 'E':
                    return "วิชาเลือก
เสรี";
                    break;
                case 'G':
                    return "วิชา
ศึกษาทั่วไป";
                    break;
                case 'J':
                    return "วิชาเอก";
                    break;
                case 'N':
                    return "วิชาโท";
                    break;
                default:
                    return "";
                    break;
            }
        }

function getCourseCMR92Change($id)
{
    $dbname_reg="studyplan2";
    $sql = "SELECT * FROM
course_cmr92 WHERE id='$id' AND course_status_academic='Y' ORDER BY course_status,course_no"; //Edit sql
    $result =
mysql_db_query($dbname_reg,$sql);
    while($rs =
mysql_fetch_array($result))
    {
        $nrs[$rs['course_no']] =
getStatusName($rs['course_status']).'.'.$rs['course_no']; //Edit col_name
    }
    return $nrs;
}

```



```

<tr>
  <td width="19%" rowspan="2" bgcolor="#EEEEEE"><div align="center"><strong>1.1 วิชาศึกษาทั่วไป
</strong></div></td>
  <td colspan="3" bgcolor="#EEEEEE"><div align="center"><strong>1.2 วิชาเฉพาะด้าน </strong></div></td>
  <td width="20%" rowspan="2" bgcolor="#EEEEEE"><div align="center"><strong>1.3 วิชาเลือกเสรี
</strong></div></td>
</tr>
<tr>
  <td width="20%" bgcolor="#EEEEEE"><div align="center"><strong>วิชาแกน</strong></div></td>
  <td width="20%" bgcolor="#EEEEEE"><div align="center"><strong>วิชาเอก</strong></div></td>
  <td width="21%" bgcolor="#EEEEEE"><div align="center"><strong>วิชาโท</strong></div></td>
</tr>
<tr>
  <td valign="top" bgcolor="#EEEEEE">
    <!--General-->
    <table width="100%" border="0" cellspacing="0" cellpadding="0">
      <tr>
        <td width="29%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none;">วิชา</td>
        <td width="36%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none;">หน่วยกิต</td>
        <td width="35%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none; border-right:none;">ลำดับชั้น</td>
      </tr>
    </table>
</td>
</tr>
<?php
  $sum_gpa_all=0' ; //สำหรับคิดเกรดเฉลี่ยรวม
  $credit_general_total=0'; //สะสม
  $credit_general_cal=0'; //คำนวณ

  $sql = "SELECT * FROM course_cmr92 WHERE id='$id' AND course_status='G'";
  $result = mysql_db_query($dbname,$sql);
  if(mysql_num_rows($result)>0)
  {
    while($rs = mysql_fetch_array($result))
    {
      $course_no=$rs["course_no"];
      if(strlen(trim($course_no))==6)
      {
        $grade_course=getGradeCourseAcademicById($id,$course_no);
      }
    }
  }
  //style

```

```

if(!empty($grade_course))
{
    $course='<span style="color:#00FF00">'. $course_no.'</span>';

    //green

    //หาหน่วยกิตสะสม คำนวณ
    $array_grade_course = explode (" ",trim($grade_course));
    for($i=0;$i<sizeof($array_grade_course);$i++)
    {
        //สะสม A-D
        if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') )
        {
            $credit_general_total+=$rs["credit"];

            //สำหรับคิดเกรดเฉลี่ยรวม
            $sum_gpa_all+=$(rs["credit"]*valuegrade(trim($array_grade_course[$i])));
        }

        //คำนวณ A-F
        if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') ||
(trim($array_grade_course[$i])=='F') )
        {
            $credit_general_cal+=$rs["credit"];

            //สะสม A-D
        }
    }
}

//End
}
else
{
    $course='<span style="color:#CC0000">'. $course_no.'</span>'; //red
}
}
}

```



```

// print - for no grade
if(empty($grade_course))
{
    $grade_course='-';
}
?>
<tr>
<td align="center" valign="top"><?php print($course);?>&nbsp;</td>
<td align="center" valign="top"><?php
print($rs["credit"]);?>&nbsp;</td>
<td align="right" valign="top"><?php
print($grade_course);?>&nbsp;</td>
</tr>
<?php
}
else
{
?>
<tr>
<td>&nbsp;</td>
<td>&nbsp;</td>
<td>&nbsp;</td>
</tr>
<?php
}
?>
</table>
<!--General-->
<td valign="top" bgcolor="#EEEEEE">
<!--Core-->
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="29%" align="center" style="border:solid; border-
color:#000000; border-width:1px; border-top:none; border-left:none;">วิชา</td>
<td width="36%" align="center" style="border:solid; border-
color:#000000; border-width:1px; border-top:none; border-left:none;">หน่วยกิต</td>
<td width="35%" align="center" style="border:solid; border-

```

```

color:#000000; border-width:1px; border-top:none; border-left:none; border-right:none">ลำดับชั้น</td>
</tr>
<?php
    $credit_core_total='0'; //สะสม
    $credit_core_cal='0'; //คำนวณ

    $sql = "SELECT * FROM course_cmr92 WHERE id='$id' AND course_status='C'";
    $result = mysql_db_query($dbname,$sql);
    if(mysql_num_rows($result)>0)
    {
        while($rs = mysql_fetch_array($result))
        {
            $course_no=$rs["course_no"];
            if(strlen(trim($course_no))==6)
            {
                $grade_course=getGradeCourseAcademicById($id,$course_no);
                //style
                if(!empty($grade_course))
                {
                    $course='<span style="color:#00FF00">'. $course_no. '</span>';
                    //green
                    //หาหน่วยกิตสะสม คำนวณ
                    $array_grade_course = explode (" ",trim($grade_course));
                    for($i=0;$i<sizeof($array_grade_course);$i++)
                    {
                        //สะสม A-D
                        if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D'))
                        {
                            $credit_core_total+=$rs["credit"];
                        }
                    }
                    //คำนวณ A-F
                    if( (trim($array_grade_course[$i])=='A') ||

```

```

(trim($array_grade_course[$i]=='B+') || (trim($array_grade_course[$i]=='B') || (trim($array_grade_course[$i]=='C+') ||
(trim($array_grade_course[$i]=='C') || (trim($array_grade_course[$i]=='D+') || (trim($array_grade_course[$i]=='D') ||
(trim($array_grade_course[$i]=='F'))
    {
    $credit_core_cal+=$rs["credit"]; //
    }
}
}
//End
}
else
{
    $course=<span style="color:#CC0000">'.course_no.'</span>; //red
}
}
// print - for no grade
if(empty($grade_course))
{
    $grade_course='-';
}
?>
<tr>
    <td align="center" valign="top"><?php print($course);?>&nbsp;</td>
    <td align="center" valign="top"><?php
print($rs["credit"]);?>&nbsp;</td>
    <td align="right" valign="top"><?php
print($grade_course);?>&nbsp;</td>
</tr>
<?php
}
else
{
?>
<tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>

```

```

        </tr>
    </table>
<?php
    }
?>
</table>
<!--core-->
</td>
<td valign="top" bgcolor="#EEEEEE">
<!--major-->
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td width="29%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none;">วิชา</td>
<td width="36%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none;">หน่วยกิต</td>
<td width="35%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none; border-right:none;">ลำดับชั้น</td>
</tr>
<?php
    $credit_major_total=0; //สะสม
    $credit_major_cal=0; //คำนวณ
    $credit_major_300=0; //300
    $credit_major_400=0; //400
    $sum_gpa_major=0;

    $sql = "SELECT * FROM course_cmr92 WHERE id='$id' AND course_status='J'";
    $result = mysql_db_query($dbname,$sql);
    if(mysql_num_rows($result)>0)
    {
        while($rs = mysql_fetch_array($result))
        {
            $course_no=$rs["course_no"];
            if(strlen(trim($course_no))==6)
            {
                $grade_course=getGradeCourseAcademicById($id,$course_no);
                //style
                if(!empty($grade_course))
                {
                    $course='<span style="color:#00FF00">'.$course_no.'</span>';
                }
            }
        }
    }
    //green

```

```

//หาหน่วยกิตสะสม จำนวน
$array_grade_course = explode(" ",trim($grade_course));
for($i=0;$i<sizeof($array_grade_course);$i++)
{
    //สะสม A-D
    if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') )
    {
        $credit_major_total+=$rs["credit"];

        //สำหรับคิดเกรดเฉลี่ยรวม

        $sum_gpa_all+=( $rs["credit"]*valuegrade(trim($array_grade_course[$i])));

        //จำนวนหน่วยกิต วิชาเอกระดับ 300
        if(substr($course_no,3,1)=='3')
        {
            $credit_major_300+=$rs["credit"];
        }
        //จำนวนหน่วยกิต วิชาเอกระดับ 400
        if(substr($course_no,3,1)=='4')
        {
            $credit_major_400+=$rs["credit"];
        }

        $sum_gpa_major+=( $rs["credit"]*valuegrade(trim($array_grade_course[$i])));
    }

    //คำนวณ A-F
    if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') ||
(trim($array_grade_course[$i])=='F') )
    {
        $credit_major_cal+=$rs["credit"];

        //สะสม A-D
    }
}

```

```

    }
    //End
  }
  else
  {
    $course='<span style="color:#CC0000">'. $course_no.'</span>'; //red
  }
}
// print - for no grade
if(empty($grade_course))
{
  $grade_course='-';
}
?>
<tr>
  <td align="center" valign="top"><?php print($course);?>&nbsp;</td>
  <td align="center" valign="top"><?php
print($rs["credit"]);?>&nbsp;</td>
  <td align="right" valign="top"><?php
print($grade_course);?>&nbsp;</td>
</tr>
<?php
}
else
{
?>
<tr>
  <td>&nbsp;</td>
  <td>&nbsp;</td>
  <td>&nbsp;</td>
</tr>
<?php
}
?>
</table>
<!--major-->
<td valign="top" bgcolor="#EEEEEE">

```



```

//สำหรับคิดเกรดเฉลี่ยรวม

$sum_gpa_all+=$(Srs["credit"]*valuegrade(trim($array_grade_course[$i]));
    }
//คำนวณ A-F
if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') ||
(trim($array_grade_course[$i])=='F'))
{
    $credit_minor_cal+=$rs["credit"];
//สะสม A-D
}
}
//End
}
else
{
    $course='<span style="color:#CC0000">'. $course_no.'</span>'; //red
}
}
// print - for no grade
if(empty($grade_course))
{
    $grade_course='-';
}
}
?>
<tr>
<td align="center" valign="top"><?php print($course);?>&nbsp;</td>
<td align="center" valign="top"><?php
print($rs["credit"]);?>&nbsp;</td>
<td align="right" valign="top"><?php
print($grade_course);?>&nbsp;</td>
</tr>
<?php
}

```



```

    }
    else
    {
?>
        <tr>
            <td>&nbsp;</td>
            <td>&nbsp;</td>
            <td>&nbsp;</td>
        </tr>
</php
    }
?>
        </table>
        <!--minor--> </td>
        <td valign="top" bgcolor="#EEEEEE">
        <!--Elective-->
            <table width="100%" border="0" cellspacing="0" cellpadding="0">
                <tr>
                    <td width="29%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none;">วิชา</td>
                    <td width="36%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none;">หน่วยกิต</td>
                    <td width="35%" align="center" style="border:solid; border-color:#000000; border-width:1px; border-top:none; border-left:none; border-right:none;">ลำดับชั้น</td>
                </tr>
</php
        $credit_elective_total=0; //สะสม
        $credit_elective_cal=0; //คำนวณ
        $sql = "SELECT * FROM course_cmr92 WHERE id='$id' AND course_status='E'";
        $result = mysql_db_query($dbname,$sql);
        if(mysql_num_rows($result)>0)
        {
            while($rs = mysql_fetch_array($result))
            {
                $course_no=$rs["course_no"];
                if(strlen(trim($course_no))==6)
                {
                    $grade_course=getGradeCourseAcademicById($id,$course_no);

```

```

//style
if(!empty($grade_course))
{
    $course='<span style="color:#00FF00">'. $course_no.'</span>';
    //green
    //หาหน่วยกิตสะสม คำนวณ
    $array_grade_course = explode (" ",trim($grade_course));
    for($i=0;$i<sizeof($array_grade_course);$i++)
    {
        //สะสม A-D
        if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') )
        {
            $credit_elective_total+=$rs["credit"];

            //สำหรับคิดเกรดเฉลี่ยรวม
            $sum_gpa_all+=$( $rs["credit"]*valuegrade(trim($array_grade_course[$i])) );
        }
        //คำนวณ A-F
        if( (trim($array_grade_course[$i])=='A') ||
(trim($array_grade_course[$i])=='B+') || (trim($array_grade_course[$i])=='B') || (trim($array_grade_course[$i])=='C+') ||
(trim($array_grade_course[$i])=='C') || (trim($array_grade_course[$i])=='D+') || (trim($array_grade_course[$i])=='D') ||
(trim($array_grade_course[$i])=='F') )
        {
            $credit_elective_cal+=$rs["credit"];
        }
    }
    //สะสม A-D
}
//End
}
else
{
    $course='<span style="color:#CC0000">'. $course_no.'</span>'; //red
}
}
}

```



```

print($credit_major_total);?> &nbsp;&nbsp;&nbsp;หน่วยกิตคำนวณ&nbsp;&nbsp;&nbsp;<?php print($credit_major_cal);?><br />
ค่าลำดับชั้นเฉลี่ย&nbsp;&nbsp;&nbsp;

    <?php @print(number_format(($sum_gpa_major/$credit_major_cal),2,'.',','));?>
</strong></td>

<td valign="top" bgcolor="#EEEEEE"><strong>&nbsp;&nbsp;&nbsp;หน่วยกิตสะสม&nbsp;&nbsp;&nbsp;<?php
print($credit_minor_total);?> &nbsp;&nbsp;&nbsp;หน่วยกิตคำนวณ&nbsp;&nbsp;&nbsp;<?php print($credit_minor_cal);?></strong></td>
<td valign="top" bgcolor="#EEEEEE"><strong>&nbsp;&nbsp;&nbsp;หน่วยกิตสะสม&nbsp;&nbsp;&nbsp;<?php
print($credit_elective_total);?> &nbsp;&nbsp;&nbsp;หน่วยกิตคำนวณ&nbsp;&nbsp;&nbsp;<?php print($credit_elective_cal);?></strong></td>
</tr>
<tr>
<td colspan="5" bgcolor="#EEEEEE">
<table width="100%" border="0" align="center">
<tr>
<td><strong>หน่วยกิตวิชาเอกระดับ 300 ขึ้นไป &nbsp;&nbsp;&nbsp;<?php
print($credit_major_300);?></strong></td>
<td><strong>หน่วยกิตสะสมทั้งหมด&nbsp;&nbsp;&nbsp;<?php
print($credit_general_total+$credit_core_total+$credit_major_total+$credit_minor_total+$credit_elective_total);?></strong></td>
<td rowspan="2"><span class="style5"><strong>ค่าลำดับชั้นเฉลี่ยสะสม
ทั้งหมด&nbsp;&nbsp;&nbsp;

<?php
$credit_cal=$credit_general_cal+$credit_core_cal+$credit_major_cal+$credit_minor_cal+$credit_elective_cal;

@print(number_format(($sum_gpa_all/$credit_cal),2,'.',','));

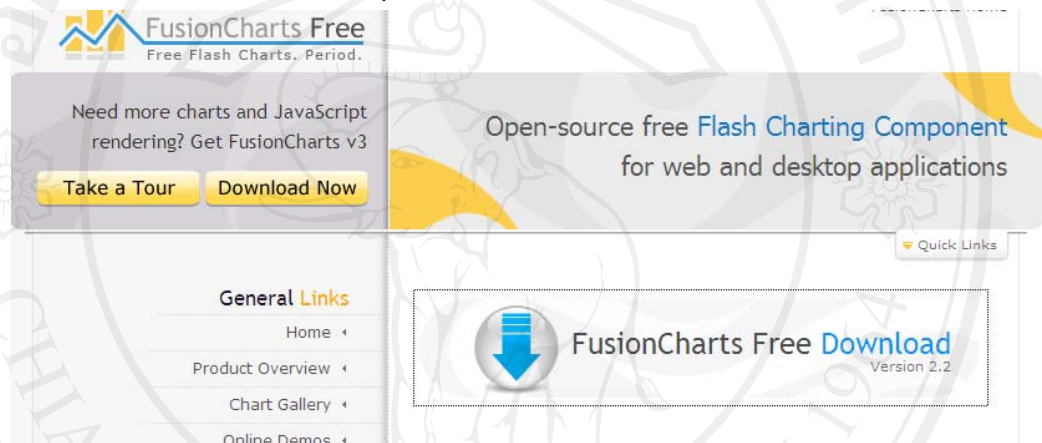
?>
</strong></span></td>
</tr>
<tr>
<td><strong>หน่วยกิตวิชาเอกระดับ 400 ขึ้นไป &nbsp;&nbsp;&nbsp;<?php
print($credit_major_400);?></strong></td>
<td><strong>หน่วยกิตคำนวณทั้งหมด&nbsp;&nbsp;&nbsp;<?php
print($credit_general_cal+$credit_core_cal+$credit_major_cal+$credit_minor_cal+$credit_elective_cal);?></strong></td>
</tr>
</table>
</td>
</tr>
</table>
<p>&nbsp;&nbsp;&nbsp;</p>
</td>
</tr>

```

5.4 การสร้างกราฟบนเว็บเพจ ด้วย FusionCharts

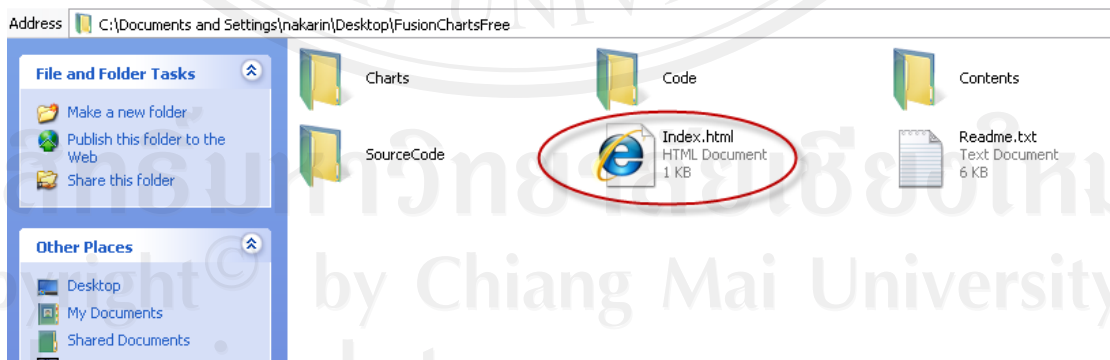
FusionCharts เป็นเครื่องมือช่วยในการสร้างกราฟ เพื่อแสดงผลบนเว็บเพจ กราฟที่ออกมาจะแสดงในลักษณะเป็น Flash จึงทำให้มีความสวยงามและมีลูกเล่น ซึ่ง FusionCharts สามารถเรียกใช้ได้ด้วยเว็บ สคริป หลายภาษา ไม่ว่าจะเป็น ASP, PHP, JSP ซึ่งในการค้นคว้าอิสระเรื่อง โปรแกรมระบบตรวจสอบและวางแผนการศึกษา นักศึกษาระดับปริญญาตรี มหาวิทยาลัยเชียงใหม่ นั้นผู้พัฒนาได้เลือกใช้ FusionChart พัฒนาร่วมกับ PHP โดยมีวิธีการพัฒนา ดังนี้

1. ทำการ Download FusionCharts รุ่นใช้ฟรีได้ที่ <http://www.fusioncharts.com/free/download/>



รูป 5.1 แสดงจอภาพการ Download FusionCharts

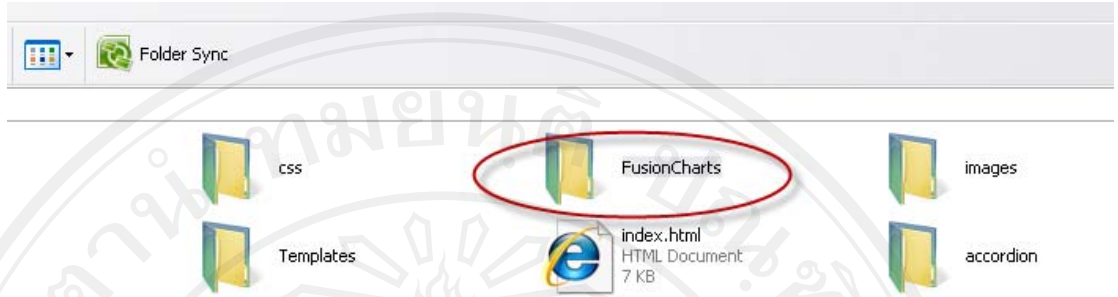
2. ใน Folder ที่ Download มา จะมีไฟล์ชื่อ Index.html จะเป็นตัวอย่างการใช้งานมากมาย



รูป 5.2 แสดงจอภาพของไฟล์ Index.html

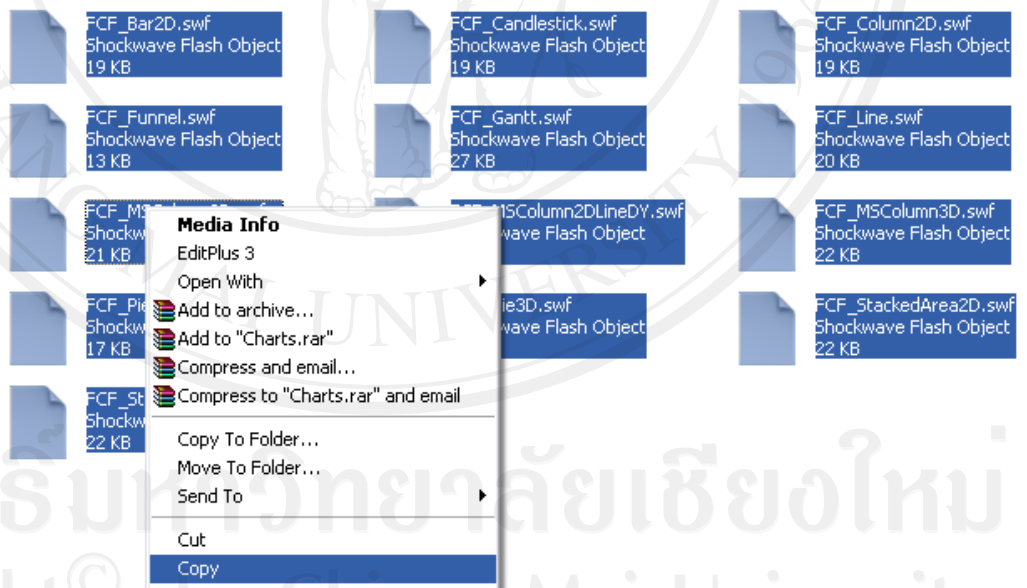
3. สร้าง Folder ใน Web Application ที่จะเรียกใช้ขึ้นมาก่อน ในที่นี้ผู้พัฒนาใช้ชื่อว่า

FusionCharts



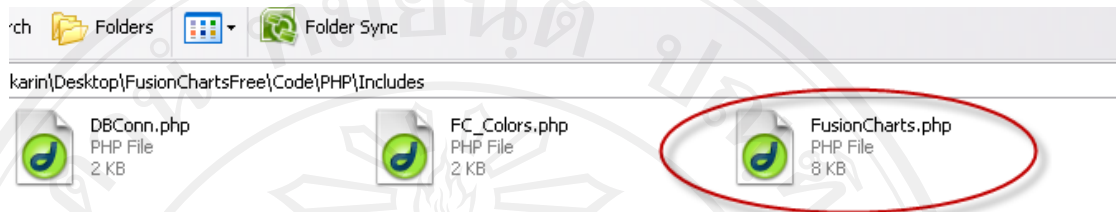
รูป 5.3 แสดงจอภาพการสร้าง Folder เพื่อเก็บไฟล์ในการเรียกใช้

4. ทำการ Copy File จาก Folder ที่ทำการ Download มาในครั้งแรก โดย Copy File ที่อยู่ใน Folder Chart มาไว้ใน Folder FusionCharts ที่ได้สร้างไว้ในข้อ 3.



รูป 5.4 แสดงจอภาพการ Copy File กราฟ

5. ทำการ Copy File ใน Folder Code/PHP/Includes/FusionCharts.php มาไว้รวมกับ File กราฟ
ในข้อ 4. ด้วย



รูป 5.5 แสดงจอภาพการ Copy File FusionCharts.php

6. สร้าง Code PHP ในการสร้างกราฟ

```
include("../conn/FusionCharts.php");
<title>ระบบตรวจสอบและวางแผนการศึกษา นักศึกษาระดับปริญญาตรี</title>
<div align="center"><span class="category"> รายงานจำนวนนักศึกษาที่มีสถานภาพประจำปีการศึกษา </span></div>
print($constant_term.'/'.$constant_year)?></span> </div>
<a href="report_student.php"><img alt="แสดงกราฟ" width="32" height="32" />&nbsp;&nbsp;</a>
if($render=='N'){ print('ไม่แสดงกราฟ');}></a>
<!--Content Graph-->
<br />
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
<td>
<script language="Javascript" src="../FusionCharts/FusionCharts.js"></script>
<?php
if($render=='Y')
{
$strXML = "<graph hovercapbg='DEDEBE' hovercapborder='889E6D' rotateNames='0'
yAxisMaxValue='5' numdivlines='4' divLineColor='CCCCCC' divLineAlpha='80' decimalPrecision='0'
showAlternateHGridColor='1' AlternateHGridAlpha='30' AlternateHGridColor='CCCCCC' >";
$strXML .= "<categories font='MS Sans Serif' fontSize='14' fontColor='000000'>";
$rs_data = getFaculty();
foreach($rs_data as $nCntData => $eachdata)
{
$strXML.="<categoryname='".$nCntData.'" hoverText='".$eachdata.'">";
$rs_data = "";
```

```

}
$strXML .= "</categories>";
for($i =1;$i<=3;$i++)
{
    $lbl="";
    if($i==1){$lbl='ชาย';}
    if($i==2){$lbl='หญิง';}
    if($i==3){$lbl='รวม';}
    $strXML .= "<dataset seriesname='$lbl' color='". getFCColor() ."'>";
    if($i!=3)
    {
        $rs_data = getFaculty();
        foreach($rs_data as $nCntData => $eachdata)
        {
            $fac_id = $nCntData;
            $strXML.="<setvalue='".getReportStudentById($fac_id,$i)."' />";

            $rs_data = "";
        }
    }
    else // ทารวม
    {
        $rs_data = getFaculty();
        foreach($rs_data as $nCntData => $eachdata)
        {
            $fac_id = $nCntData;

            $strXML.="<setvalue='".(getReportStudentById($fac_id,$constant_sex_male)+getReportStudentById($fac_id,$constant_sex_female))."' />";

            $rs_data = "";
        }
    }
    $strXML .= "</dataset>";
}
$strXML .= "</graph>";
echo renderChart("../FusionCharts/FCF_MSCColumn3D.swf", "", $strXML, "info", 700, 500, false, false);
}
?>

```